

**United States Environmental Protection Agency
Criminal Investigation Division
Investigative Activity Report**

Case Number:

1003-0101

Case Title:

Prime, Inc

Subject of Report:

NEIC Report for 8-24-16 Field Support

Reporting Office:

Boise, ID, Resident Office

Activity Date:

December 13, 2016

Reporting Official and Date:

Darin J. Mugleston

Resident Agent in Charge

13-DEC-2016, Signed by Darin J. Mugleston

Approving Official and Date:

Jeanne Proctor

Special Agent in Charge

14-DEC-2016, Approved by Edward W. Owens

Assistant Special Agent in Charge

SYNOPSIS

On December 13, 2016, EPA's National Enforcement Investigations Center (NEIC) provided a Report for its field technical assistance on the Prime, Inc. (Prime) investigation.

DETAILS

On December 13, 2016, NEIC provided EPA-CID with a Report, detailing NEIC's field and laboratory technical support of an investigation at Prime, located at 3720 W. 800 S, South Lake City, Utah, on August 24, 2016. The NEIC Report is attached.

ATTACHMENT

NEIC Report for 8_24_16 Field Support

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B&VP
Prime, Inc. - 000358



United States Environmental Protection Agency
Office of Enforcement and Compliance Assurance
Office of Criminal Enforcement, Forensics and Training

National Enforcement Investigations Center

NEIC

NEICRP1723R01

NEIC REPORT

Prime Inc.

Salt Lake City, Utah
NEIC Project No.: RP1723
CID Case No.: 1003-0101

December 2016

Prepared by:

John Fowler, Chemist
John Reschl, Chemist

Prepared for:

Darin Mugleston
EPA Criminal Investigation Division
Boise Resident Office
Boise, Idaho, 83702

Authorized for Release by:

David Parker, Program Coordinator

NATIONAL ENFORCEMENT INVESTIGATIONS CENTER
P.O. Box 25227
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Denver, Colorado 80225

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APPENDICES

- A Field XRF Results (1 page)
- B Chain of Custody Record (1 page)
- C Receipt for Samples Record (1 page)
- D Field and Laboratory Photographs (56 pages)

This Contents page shows all of the sections contained in this report and provides a clear indication of the end of this report.

FINDINGS

- The contents of 32 drums removed from a burnt semi-trailer were analyzed by X-ray fluorescence spectrometry (XRF). Twenty of these drums contained material consistent with a strontium chromate primer (Universal Urethane Yellow Primer, Product Code BP1Y100B, from trailer's shipping manifest).
- Representative¹ samples were collected from 8 of the 20 drums identified as containing material consistent with strontium chromate primer. All 8 samples had concentrations of chromium greater than the regulatory level established under the Resource Conservation and Recovery Act (RCRA) for the hazardous waste toxicity characteristic² and had the properties established for the RCRA hazardous waste ignitability characteristic.³

¹ Appendix I to 40 Code of Federal Regulations (CFR) Part 261 – REPRESENTATIVE SAMPLING METHODS states, in part: "Samples collected using the sampling protocols listed below, for sampling waste with properties similar to the indicated materials, will be considered by the Agency to be representative of the waste...."

Containerized liquid waste – 'COLIWASA.'"

² 40 CFR § 261.24 – "(a) A solid waste (except manufactured gas plant waste) exhibits the characteristic of toxicity if, using the Toxicity Characteristic Leaching Procedure, test Method 1311 in "Test Methods for Evaluating Solid Waste, Physical/Chemical Method," EPA Publication SW-846, as incorporated by reference in § 260.11 of this chapter, the extract from a representative sample of the waste contains any of the contaminants listed in table 1 at the concentration equal to or greater than the respective value given in that table...."

Table 1 – Maximum Concentration of Contaminants for the Toxicity Characteristic... Contaminant... Chromium... Regulatory Level (mg/L)... 5.0."

³ 40 CFR § 261.21 – "(a) A solid waste exhibits the characteristic of ignitability if a representative sample of the waste has either of the following properties: (1) It is liquid, other than an aqueous solution containing less than 24 percent alcohol by volume and has a flash point less than 60 °C (140 °F), as determined by a Pensky-Martens Closed Cup Tester, using the test method specified in ASTM Standard D 93-79 or D 93-90 (incorporated by reference, see §260.11), or a Setaflash Closed Cup Tester, using the test method specified in ASTM Standard D 3278-78 (incorporated by reference, see §260.11)...."

PROJECT ACTIVITIES

On August 24, 2016, the U.S. Environmental Protection Agency (EPA) National Enforcement Investigations Center (NEIC) provided field technical assistance to the EPA Criminal Investigation Division (CID) in support of an investigation of Prime Inc. (Prime), located at 3720 West 800th South, Salt Lake City, Utah. NEIC provided field and laboratory technical support to the Prime investigation. The project team members are listed in **Table 1**.

Table 1. PROJECT TEAM MEMBERS		
Team Member	Organization	Project Role
John Fowler	NEIC	Project manager (PM)
Jacob Stowell	NEIC	Field team member
[REDACTED]	CID	Field team member
John Reschl	NEIC	Principal analytical chemist (PAC)
Ben Burns	NEIC	Laboratory team member
Kristine Pordesimo	NEIC	Laboratory team member

The field team provided support to this investigation by inventorying, performing on-site testing, and sampling of drums taken from a burnt semi-trailer. Under the direction of John Fowler, [REDACTED] collected samples from 32 drums for XRF testing, using new glass drum thieves. A summary of the on-site XRF testing conducted by John Fowler is contained in **Appendix A**. Based on the XRF testing, 20 of the 32 drums contained material consistent with strontium chromate primer. Drums consistent with strontium chromate primer had XRF readings greater than 10,000 milligrams per kilogram (mg/kg) chromium and 17,000 mg/kg strontium, while other drums not consistent with strontium chromate primer had XRF readings under 6 mg/kg chromium and 132 mg/kg strontium. Following the XRF testing, Jacob Stowell collected additional samples from 8 of those 20 drums using a composite liquid waste sampler (COLIWASA). The samples were driven by Jacob Stowell to the NEIC laboratory in Denver, Colorado, for analysis. The laboratory analyzed the samples for the RCRA hazardous waste characteristics of toxicity and ignitability. A summary of the sampling and analytical results is provided in **Table 2**. A copy of the chain of custody record is provided in **Appendix B**.

All environmental measurement activities were performed in accordance with the NEIC quality system. All field sampling, field measurements/monitoring, and/or laboratory measurements described in this report are within the scope of NEIC's ISO/IEC 17025 accreditation issued by American National Standards Institute-American Society for Quality (ANSI-ASQ) National Accreditation Board (certificate No. AT-1646).

Table 2. SAMPLING AND ANALYTICAL RESULTS

Sample No. ¹	Sample Location ¹	Laboratory Sample Descriptions and Phase Separations Results	RCRA Characteristic and Other Test Results
D06	Drum 06	Top phase: Clear liquid with suspended yellow solids 0.5% ² Bottom phase: Yellow fine solids 99.5%	Toxicity ³ : 36.8 milligram per liter (mg/L) chromium ⁴ Ignitability: Flash point ⁴ = 45.0 degrees Celsius (°C) Liquid phase: < 2% water Density ⁵ : = 1.29 grams/milliliter (g/mL)
D10	Drum 10	Top phase: Clear liquid with suspended yellow solids 1.8% Bottom phase: Yellow fine solids 98.2%	Toxicity: 65.5 mg/L chromium Ignitability: Flash point = 44.5 °C Liquid phase: < 2% water Density: = 1.29 g/mL
D15	Drum 15	Top phase: Clear liquid with suspended yellow solids 2.7% Bottom phase: Yellow fine solids 97.3%	Toxicity: 37.0 mg/l chromium Ignitability: Flash point = 44.5 °C Liquid phase < 2% water Density = 1.25 g/mL
D20	Drum 20	Top phase: Clear liquid with suspended yellow solids 3.8% Bottom phase: Yellow fine solids 96.2%	Toxicity: 50.7 mg/L chromium Ignitability: Flash point = 43.0 °C Liquid phase < 2% water Density = 1.19 g/mL
D22	Drum 22	Top phase: Clear liquid with suspended yellow solids 49.5% Bottom phase: Yellow fine solids 51.5%	Toxicity: 352 mg/L chromium Ignitability: Flash point = 45.0 °C Liquid phase < 2% water Density = 1.31 g/mL
D25	Drum 25	Top phase: Clear liquid with suspended yellow solids 3.5% Bottom phase: Yellow fine solids 96.5%	Toxicity: 44.0 mg/L chromium Ignitability: Flash point = 44.5 °C Liquid phase < 2% water Density = 1.23 g/mL
D26 ⁶	Drum 26	Top phase: Clear liquid with suspended yellow solids 2.4% Bottom phase: Yellow fine solids 97.6%	Toxicity: 37.4 mg/L chromium Ignitability: Flash point = 44.0 °C Liquid phase < 2% water Density = 1.24 g/mL

Table 2. SAMPLING AND ANALYTICAL RESULTS

Sample No. ¹	Sample Location ¹	Laboratory Sample Descriptions and Phase Separations Results	RCRA Characteristic and Other Test Results
D26 ⁶	Drum 26	Top phase: Clear liquid with suspended yellow solids 2.7% Bottom phase: Yellow fine solids 97.3%	Toxicity: 50.3 mg/L chromium Ignitability: Flash point = 44.0 °C Liquid phase < 2% water Density = 1.22 g/mL
D29	Drum 29	Top phase: Clear liquid with suspended yellow solids 1.5% Bottom phase: Yellow fine solids 98.5%	Toxicity: 42.7 mg/L chromium Ignitability: Flash point = 44.0 °C Liquid phase < 2% water Density = 1.27 g/mL
¹ Sample numbers and drum identification numbers were assigned in the field by John Fowler. All drums were 55-gallons drums. The term “Station” on the chain of custody record is interchangeable with the term “Sample” in this table. ² Phase percentages (%) are calculated based on volume. Values are the average of the two samples collected from each drum. ³ Result from the toxicity characteristic leaching procedure (TCLP) for RCRA hazardous waste characteristic of toxicity. The regulatory level for chromium is 5.0 mg/L. ⁴ Nonaqueous liquids with flash point values less than or equal to 60° C (140 degrees Fahrenheit) have the properties of the RCRA hazardous waste characteristic of ignitability. Flashpoint was determined on the liquid phase of each sample. ⁵ Density was determined on a mixed sample containing both the upper and bottom phases. ⁶ Field replicate samples.			

At the request of CID case agent Darin Muggleston, samples were collected for H2O Environmental (H2O) along with the samples collected for the NEIC laboratory. H2O supplied its own sample jars. John Fowler relinquished the H2O samples to Glen Jones, account manager, Salt Lake Base, H2O. A copy of the “Receipt for Samples” form is attached as **Appendix C**.

Field and laboratory photographs are attached as **Appendix D**. Laboratory sample descriptions, observations, and comments are documented in the project file.

Table 3 lists the sampling and analysis procedures followed and the sampler(s)/analyst(s) associated with each activity or test. Data quality summaries, including uncertainty measurements, for all laboratory measurements are maintained in the project file.

Table 3. SAMPLING AND ANALYSIS PROCEDURES

Analytical Methods/Procedures	Team Member
<ul style="list-style-type: none"> • <i>X-ray Fluorescence Spectrometry Using the Niton Model 792 XLt Field Portable X-ray Fluorescence</i>, NEICPROC/11-001 	John Fowler
<ul style="list-style-type: none"> • <i>Container Sampling</i>, NEICPROC/00-048R1 	Jacob Stowell
<ul style="list-style-type: none"> • Metals extraction: SW-846 Method 1311: Toxicity Characteristic Leaching Procedure 	John Reschl
<ul style="list-style-type: none"> • <i>Elemental Analyses</i>, NEICPROC/00-062R5 • SW-846 Method 6010: Inductively Coupled Plasma-Atomic Emission Spectrometry 	John Reschl
Flash point analysis: <ul style="list-style-type: none"> • <i>Setaflash Method for Determining Ignitability of Liquids</i>, NEICPROC/06-001R2 • ASTM D 3278-78, Standard Test Methods for Flash Point of Liquids by Setaflash Closed Tester 	Ben Burns
<ul style="list-style-type: none"> • <i>Water Content Determination by Coulometric Karl Fischer Titration</i>, NEICPROC/00-073R3 • SW-846 Method 9000: Determination of Water in Waste Materials by Karl Fischer Titration 	Kristine Pordesimo

Appendix A
FIELD XRF RESULTS
(mg/kg)¹

Container	Color of Material	Strontium	Chromium	Primer Drum	Sampled for RCRA Analysis
Drum 01	White	<LOD ²	<LOD		
Drum 02	White	<LOD	130.5		
Drum 03	Yellow	28493.2	15963.3	Yes	
Drum 04	White	<LOD	<LOD		
Drum 05	White	2.9	53.5		
Drum 06	Yellow	47634.0	12241.3	Yes	Sampled
Drum 07	Yellow	28209.5	14113.0	Yes	
Drum 08	White	<LOD	<LOD		
Drum 09	White	<LOD	<LOD		
Drum 10	Yellow	37326.3	16575.4	Yes	Sampled
Drum 11	White	1.9	<LOD		
Drum 12	White	<LOD	<LOD		
Drum 13	White	4.2	114.4		
Drum 14	White	<LOD	<LOD		
Drum 15	Yellow	35449.3	19297.2	Yes	Sampled
Drum 16	White	<LOD	<LOD		
Drum 17	White	5.6	35.5		
Drum 18	Yellow	45802.8	18036.5	Yes	
Drum 19	Yellow	52090.7	18907.9	Yes	
Drum 20	Yellow	59570.2	15827.7	Yes	Sampled
Drum 21	Yellow	63103.8	25409.8	Yes	
Drum 22	Yellow	50767.1	23856.7	Yes	Sampled
Drum 23	Yellow	55307.1	21636.7	Yes	
Drum 24	Yellow	59259.0	25108.2	Yes	
Drum 25	Yellow	38879.0	19552.7	Yes	Sampled
Drum 26	Yellow	51209.2	11224.1	Yes	Sampled
Drum 27	Yellow	44577.8	11779.1	Yes	
Drum 28	Yellow	50326.5	24204.4	Yes	
Drum 29	Yellow	17194.3	15647.8	Yes	Sampled
Drum 30	Yellow	35245.5	19989.9	Yes	
Drum 31	Yellow	53331.1	24724.2	Yes	
Drum 32	Yellow	51634.3	22926.5	Yes	
Estimated LOD:		1.5	8.0		

Number: 32 20 8

1 – Values should be considered semi-quantitative due to levels, sample matrix, and how material was prepared for analysis.

2 – Limit of Detection (LOD)

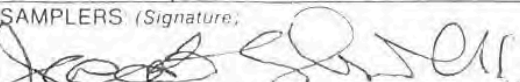
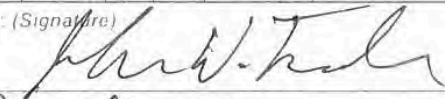
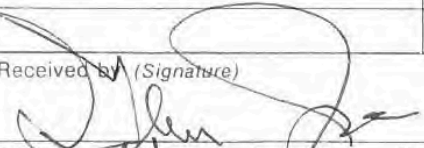
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Denver, Colorado 80225

[illegible]

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N 14195

RECEIPT FOR SAMPLES

PROJ. NO. RP1723		PROJECT NAME Prime, Inc.					Name of Facility Prime, Inc.		
SAMPLERS (Signature) 							Facility Location Salt Lake City, Utah		
Split Samples Offered <input checked="" type="checkbox"/> Accepted () Declined									
STA NO	DATE	TIME	COMP	GRAB	SPLIT SAMPLES	TAG NUMBERS	STATION DESCRIPTION	NO. OF CONTAINERS	REMARKS
D06	08/24/16	1320	X		Yes	NE33851	Draw 06	1	H ₂ O Supplied Both
D10		1410	X			NE38852	Draw 10	1	
D15		1405	X			NE38855	Draw 15	1	
D20		1400	X			NE38860	Draw 20	1	
D22		1430	X			NE38869	Draw 22	1	
D25		1355	X			NE68863	Draw 25	1	
D26	X	1340	X			NE68872	Draw 26	1	
D27	08/24/16	1345	X		Yes	NE68866	Draw 29	1	
Transferred by: (Signature) 							Received by: (Signature) 		
Date 08/24/2016							Date 08/24/2016		
Time 15:25							Time 15:30		
Title Waste Manager							Telephone 801-677-0036		

Distribution: Original to Coordinator Field Files; Copy to Facility

N 61249

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Appendix C
Page 1 of 1

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Salt Lake City, Utah
Prime Inc.
B&W Photo Inc. - 0063365











































































































RP1723 - Prime Inc.

IMG_3531.JPG



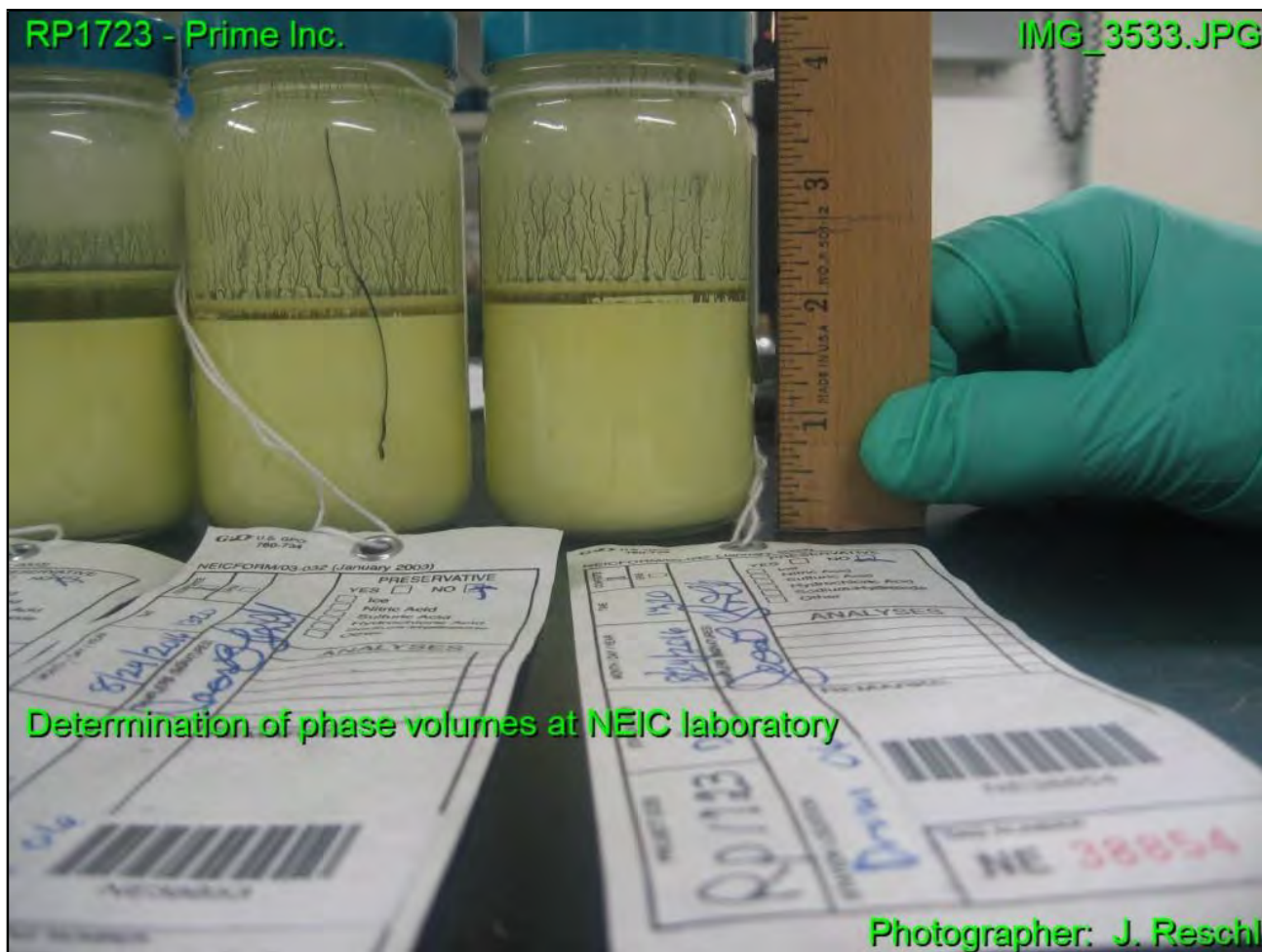
RP1723 - Prime Inc.

IMG_3532.JPG



Samples D25 to D29 at NEIC laboratory

Photographer: J. Reschl



Standard Form for Presentation of Loss and Damage Claims

(Name of person to whom claim is submitted)	(Address of claimant)	(Claimants Reference Number)
(Name of Carrier)	(Date)	
(Address)		

This claim for \$54,102.14 is made against the carrier named above by MARC W. LOWE
(Amount of claim) (Name of Claimant)

for LOSS in connection with the following described shipments:
(Loss or damage)

Description of shipment 72 DRUMS AND 2 PAIS OF PAINT ON A FULL TRUCKLOAD

Name and address of shipper PPG INDUSTRIES, INC.; 125 COLFAX ST.; SPRINGDALE, PA 15144

Shipped from SPRINGDALE, PA 15144 : To PORTLAND, OR 97210
(City, town or station) (City, town or station)

Final destination _____ : Routed via _____
(City, town or station) (City, town or station)

Bill of Lading issued by PPG INDUSTRIES, INC. Co.; Date of Bill of Lading 9/24/2015

Paid Freight Bill (PRO) Number 1335454 ; Original Car Number and Initial 143320

Name and address of consignee (whom shipped to) BUSHNELL'S WAREHOUSE, 2720 NW 35th AV, PORTLAND, OR 97210

If shipment reconsigned en route, state particulars: _____

DETAILED STATEMENT SHOWING HOW AMOUNT CLAIMED IS DETERMINED

(Number and description of articles, nature and extent of loss or damage, invoice price of articles, amount of claim, etc.)

32 DRUMS (1600 GAL) PAINT, PER INVOICE # 11-88124 (document attached)	\$24,992.00
40 DRUMS (2000 GAL) PAINT, PER INVOICE # 11-94609 (document attached)	\$28,369.80
2 PAIS (10 GAL) PAINT, PER INVOICE # 11-94612 (document attached)	\$414.84
19 PALLETS @ \$12.50 PER PALLET	\$237.50
SPRINGDALE PLANT LABOR ALLOWANCE FOR RELOADING NEW MATERIAL (4 hrs @ \$22/hr)	\$88.00

IN ADDITION TO THE INFORMATION GIVEN ABOVE, THE FOLLOWING DOCUMENTS ARE SUBMITTED IN SUPPORT OF THIS CLAIM.

- ☒ 1. Original bill of lading, if not previously surrendered to carrier.
- ☐ 2. Original paid freight (expense) bill.
- ☒ 3. Original invoice or certified copy.
- ☐ 4. Other particulars obtainable in proof of loss or damage claimed.

REMARKS THIS MATERIAL LOSS WAS THE RESULT OF A TRUCK FIRE IN HAMMETT, IDAHO ON 9/27/2015 WHILE EN ROUTE.

The foregoing statement of facts is hereby certified as correct:

Marc W. Lowe
(Signature of claimant)

**United States Environmental Protection Agency
Criminal Investigation Division
Investigative Activity Report**

Case Number:

1003-M473

Case Title:

Prime, Inc

Subject of Report:

Interview of Mark Lowe, PPG

Reporting Office:

Boise, ID, Resident Office

Activity Date:

January 26, 2016

Reporting Official and Date:

Darin J. Mugleston

Resident Agent in Charge

02-FEB-2016, Signed by Darin J. Mugleston

Approving Official and Date:

Edward W. Owens

Assistant Special Agent in Charge

04-FEB-2016, Approved by Edward W. Owens

Assistant Special Agent in Charge

SYNOPSIS

On January 26, 2016, Mark Lowe, Logistics Manager, Industrial Coating for United States and Canada, PPG Industries (PPG), Pittsburgh, PA, was interviewed regarding the September 21, 2015, paint waste incident from a truck and trailer fire. Lowe said he was first told by Prime, Inc. (Prime), a trucking company, there was no cleanup of paint waste, because all of the paint material was burned. However, about a month after the incident, Lowe learned from Idaho Department of Environmental Quality (IDEQ) not all of the paint waste had burned, which the paint waste was then disposed at an unpermitted landfill.

DETAILS

On January 26, 2016, at approximately 4:10 p.m., Mark Lowe, Logistics Manager, Industrial Coating for United States and Canada, PPG, 1 PPG Place, Pittsburgh, PA, (412) 434-1791 (office) and (412) 848-8877 (cell), was phoned by Reporting Agent. Lowe was telephonically interviewed regarding the allegations that on September 21, 2015, Prime, while transporting PPG paint material, had a truck and trailer fire. Subsequently, Prime and B&W Wrecker Service (BWS) allegedly disposed paint-related hazardous waste illegally at an unpermitted landfill. Lowe said the following information:

After explaining the allegations and the purpose of the interview, Lowe advised he is currently out-of-town attending a training event and he did not have access to his files relating to the above allegations; therefore, he had to answer questions to the best of his knowledge.

Lowe advised PPG is a global supplier of paints, coatings, optical products, specialty materials, glass, and fiber glass. PPG customers include industrial, transportation, consumer products, and construction markets and aftermarkets. PPG employees approximately 46,000 people worldwide and is a Fortune 500 company. PPG's Industrial Coating Division has coatings for "anything that doesn't go on houses or vehicles," such as household appliances, furniture, wood, vinyl, sports and recreation equipment, etc. In addition, Lowe advised PPG's Corporate Logistics is a shared business group that handles transportation needs for all of PPG's division units i.e., industrial coating, glass, chemical, automotive, etc.

Lowe explained PPG takes sales orders from customers for its coating products. The orders are manufactured and are typically filled into containers to be shipped. The containers can be pails, drums, tote tanks, and some shipments go out on large tank wagons. When orders are to be shipped, the "shipping teams" make the decision on carrier (transporter) selection, which is based on rates. PPG has tight control over the type of carrier it uses. PPG wants to use carriers that know how to handle hazardous materials and chemicals, and have bulk endorsements (meaning they can carry over a 1,000 pounds of material in large containers). As a result, PPG has a fairly limited set of carriers they use in transporting PPG products.

Lowe advised PPG does a lot of business with the carrier, Prime. Lowe is very familiar with Prime.

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**United States Environmental Protection Agency
Criminal Investigation Division
Investigative Activity Report**

Case Number:
1003-M473

Lowe claimed Prime knows PPG products very well. Lowe estimated Prime is ranked about 4th among the carriers on the amount of business it does with PPG.

Regarding the September 21, 2015, paint waste incident, Lowe advised PPG contracted with Prime to transport a large shipment of paint to a third party warehouse in Oregon. PPG uses these type of warehouses to get products closer to customers when needed.

Lowe claimed the paint waste incident and allegations regarding Prime really “surprised” Lowe, because Lowe thought Prime had a “clear understanding” of how Prime was supposed to make contact with PPG’s emergency response group, “Chemtrec,” upon such an accident. Lowe claimed Chemtrec should have been the group Prime contacted after the fire accident. Lowe advised the Chemtrec notification is listed on the bottom of the “Bill of Lading.” Lowe claimed he does not know who Prime contacted to clean up the accident, but Lowe knows it was not Chemtrec.

Lowe claimed that Prime’s truck drivers should all be “hazmat” trained and bulk endorsed (certified to carry large loads). In addition, the truck drivers should have all the paperwork, e.g., Bill of Lading, up front in the cab of the truck.

When asked if Prime contacted anyone at PPG regarding the September 21, 2015, incident, Lowe recalled that the day after the accident, Prime sent an email to Cody Poppaw, Fleet Manager, PPG’s Corporate Logistics, stating there was an issue with the shipment and Lowe recalled something about a fire and there would be a delay in shipment. Lowe was forwarded the email by Poppaw. After receiving the email from Poppaw, Lowe recalled emailing Prime back asking for more details of what happened and about a cleanup. Lowe recalled the response back from Prime was “there was nothing to cleanup, it was a total loss.” Lowe claimed Prime said everything was burned to the ground and there was nothing to be cleaned up. Lowe advised he could not recall the name of the person he first dealt with at Prime without looking at his emails.

Lowe claimed his primary concern with the incident was that there was a cleanup and there was a proper disposal of the paint material. Lowe recalled he stressed these concerns in the above email to Prime. Lowe stated to Reporting Agent he was concerned because there was a truck of material that had “PPG’s name all over it.” Lowe said PPG has product stewardship. As a shipper, PPG makes sure all of the paperwork is in accordance with Department of Transportation law and the trucks are placard. Lowe advised although PPG is concerned with the product during transit, once in transit, the carrier is responsible for the material and any accidents.

Lowe reiterated that after sending his above email, the response back from Prime was there was nothing to be disposed, it was a total loss.

Lowe believed it was by mid-October 2015, when he first learned of the paint material not being burned and of the illegal disposal allegations. Lowe learned of the allegations from Maureen Vincenty, IDEQ. Reporting Agent reminded Lowe he was contacted by Vincenty on October 21, 2015. After refreshing Lowe’s recollection, Lowe recalled being shocked that it was almost a month after the incident wherein he learned the material was not all burned up.

Lowe reiterated it was IDEQ to “expose me to what truly happened at the scene.”

Lowe claimed he cooperated with Vincenty and provided MSDS sheets for the paint products. Lowe also received photos of the incident from Vincenty. When he viewed the photos, Lowe recalled it was

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**United States Environmental Protection Agency
Criminal Investigation Division
Investigative Activity Report**

Case Number:

1003-M473

“disturbing” for him to learn the paint material was not all burned and there was an actual cleanup. Currently, PPG is waiting to get a final report from IDEQ.

After his conversation about the alleged disposal with Vincenty, Lowe contacted corporate logistics and corporate general counsel.

Lowe said that about a week after receiving IDEQ’s information, he and PPG’s corporate counsel contacted David White, Prime’s “Safety Supervisor,” and Keith McCoy, Prime’s “Director of Marketing,” to get clarification of what actually happened at the incident. During the meeting, White and McCoy claimed that after the incident, there was a lot of discussion, leading to confusion, going on between the different authorities from state and local agencies responding to the scene. White and McCoy claimed one of these authorities said “we have this covered.” White and McCoy claimed this statement and other confusion at the incident led to the paint being disposed at the landfill. Lowe stated he does not have more detail information on Prime’s explanations, because the call was more of “an awareness call than anything else.”

Lowe said it is uncommon to have accidents of this nature with any carrier. Lowe said Prime has been a good carrier for PPG.

Lowe provided contact information for PPG’s corporate counsel, attorney Bob Brown, (412) 434-3102.

This interview was concluded at approximately 5:00 p.m.

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EPA CID Case No. 1003-0101: 0244

**United States Environmental Protection Agency
Criminal Investigation Division
Investigative Activity Report**

Case Number:

1003-M473

Case Title:

Prime, Inc

Subject of Report:

Interview of Sgt. Colin Bonner, ISP

Reporting Office:

Boise, ID, Resident Office

Activity Date:

February 4, 2016

Reporting Official and Date:

Darin J. Mugleston

Resident Agent in Charge

09-FEB-2016, Signed by Darin J. Mugleston

Approving Official and Date:

Edward W. Owens

Assistant Special Agent in Charge

16-FEB-2016, Approved by Edward W. Owens

Assistant Special Agent in Charge

SYNOPSIS

On February 4, 2016, Sergeant Colin Bonner, Supervisor, Commercial Vehicle Safety Hazardous Materials Division, Idaho State Police (ISP), Meridian, Idaho, said he instructed the truck drivers for Prime, Inc. (Prime) that the paint-related waste incident from the truck and trailer fire was a hazardous material (Hazmat) site and it needed to be properly cleaned up. Sgt. Bonner also instructed the driver of B&W Wrecking Service (B&W) that the scene needed to be cleaned up as a Hazmat site.

DETAILS

On February 4, 2016, at approximately 1:00 p.m., Sergeant Colin Bonner, Supervisor, Commercial Vehicle Safety Hazardous Materials Division, ISP, Meridian, Idaho, was interviewed by Special Agent Darin Mugleston, EPA-CID, and SA [REDACTED] EPA-CID, at the Boise Resident Office. The purpose of the interview was to determine Sgt. Bonner's knowledge of the September 27, 2015, paint-related waste incident from a truck and trailer fire operated by Prime, Inc. Sgt. Bonner said the following information:

Sgt. Bonner has been a police officer with ISP for approximately 24 years. Sgt. Bonner has been with ISP's Commercial Vehicle Safety since year 2000. In 2001, he was assigned to ISP's Commercial Vehicle Safety Hazardous Materials Division. In 2006, he was promoted to Hazardous Material Supervisor.

On Sunday, September 27, 2015, at approximately 2:40 a.m., Sgt. Bonner was dispatched to the paint-related waste incident involving Prime trucking, near Glens Ferry, ID. Sgt. Bonner recalled when he arrived at the scene, the trailer fire already had been extinguished by the rural fire department. Also, upon his arrival, the Idaho Transportation Department (IDT) crew was at the scene conducting traffic control with signs and cones.

Sgt. Bonner believed the fire was caused by a wheel hub and brake assembly on the truck's rear axle overheating and catching fire. The hub either lost oil or the brakes did not release, causing the fire.

Shortly after Sgt. Bonner's arrival at the scene, the Idaho State Boise Regional Response Team for Region 4 (RRT 4) arrived on scene. Although the fire had been extinguished, Sgt. Bonner did not get close to the scene until it was cleared of any imminent threat to human health by RRT 4.

The RRT 4 used "4 gas meters" to "sniff" the drums for any chemical vapor hazards. The RRT 4 did not detect any hazardous vapor from the drums. The RRT 4 eventually cleared the scene of any imminent threats to public health. After the RRT 4 cleared the scene, the emergency phase transitioned into the cleanup phase. The RRT 4 left the scene after declaring it safe to begin the cleanup phase.

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EPA CID Case No. 1003-0101: 0245

**United States Environmental Protection Agency
Criminal Investigation Division
Investigative Activity Report**

Case Number:
1003-M473

Sgt. Bonner advised that RRT 4 monitored the scene for only emergency response. RRT 4 did not test for characterization of hazardous waste.

After the rural fire department left the scene, Sgt. Bonner became the incident commander for the scene.

Sgt. Bonner advised Prime was contracted by PPG Industries, the manufacturer of the paint, to transport approximately 72 drums of paint-related material to Oregon. Sgt. Bonner confirmed this by reviewing the Bill of Lading at the scene.

Sgt. Bonner claimed the truck/trailer was properly identified with flammability placards on the sides of the trailer. The drums also had flammability labels, but the fire burned the labels off the drums.

Sgt. Bonner did not recall seeing all of the drums, but the drums he did observe were all compromised, i.e., the heat caused the bungs to pop off the drums, or the drums were partially split open.

While reviewing photographs taken by Sgt. Bonner, Sgt. Bonner described how the compromised drums oozed out paint sludge from the bung holes. Sgt. Bonner suspected the heat caused the paint to turn into a sludge. Sgt. Bonner didn't recall seeing any free flowing liquid paint, but just the paint sludge. Sgt. Bonner provided digital images of the photos he took at the scene, which are attached.

During Sgt. Bonner's investigation of the incident, he spoke with the two drivers of the truck/trailer, operated by Prime, Steven Drake and Angela Duck. Sgt. Bonner also believed the drivers were either married or a couple. Sgt. Bonner mostly spoke to Drake, however. Sgt. Bonner provided a copy of his Driver/Vehicle Examination Report, which is attached.

Sgt. Bonner explained to Drake and Duck it was the responsibility of the "spiller" to clean up the scene. Sgt. Bonner explicitly informed Drake and Duck the spill had to be properly cleaned up, because the scene was a Hazmat site.

After explaining in detail of Prime's responsibility for a proper Hazmat cleanup, Sgt. Bonner recalled the drivers sent a "quall com" (a computer messaging system inside the truck) message to Prime. In addition, Sgt. Bonner witnessed, on at least two different occasions, Drake talking on the phone to someone at Prime.

Sgt. Bonner learned from Drake that Prime hired B&W Wrecker Service (B&W), Boise, ID. Sgt. Bonner is very familiar with B&W. Sgt. Bonner knows B&W of being only a towing company. To Sgt. Bonner's knowledge, B&W has never been an environmental cleanup company. Sgt. Bonner told Drake that he (Drake) needed to make sure B&W was a Hazmat certified company.

Sgt. Bonner stated he was very concerned over B&W being hired for the Hazmat cleanup. Sgt. Bonner explained to the interviewing agents that he actually called Idaho State Communications Center (ISCC) to see if B&W was listed as a Hazmat cleanup company. Sgt. Bonner said he learned that Idaho does not have a list of regulated Hazmat cleanup firms.

When Sgt. Bonner learned B&W was going to be the cleanup company, Sgt. Bonner stated he again informed Drake the scene was a "hazardous materials incident" and the site needed to be cleaned up properly. Sgt. Bonner reiterated he told Drake a couple of times throughout the morning the scene needed a Hazmat cleanup.

When B&W arrived at the scene, Sgt. Bonner claimed he instructed the driver about the requirements

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Criminal Investigation Division
Investigative Activity Report**

Case Number:

1003-M473

and ensuring a proper Hazmat cleanup. (Sgt. Bonner didn't recall the driver's name) Sgt. Bonner specifically told the driver about shipping papers, placards, manifest, "CDL Hazmat endorsements" (certifications to haul hazardous material), and etc.

After Sgt. Bonner explained the Hazmat requirements to the B&W driver, the B&W driver said, "We have people that can do that." Sgt. Bonner said the B&W driver was adamant that B&W could do a proper Hazmat cleanup. Further, Sgt. Bonner recalled when he talked about CDL Hazmat endorsements, he noticed the driver had that "uh-oh" look, and then the driver said we can get someone here that has the Hazmat endorsement.

Sgt. Bonner stated he told the B&W driver "multiple" times the scene was a "hazardous material site" and it needed to be cleaned up properly with "no residue" left behind. Sgt. Bonner even explained the "4 walls" term to the driver. The 4 walls term means the contamination is contained and the routes of mitigation and exposure have been eliminated.

On Sunday, September 27, 2015, at approximately 8:55 a.m., left the scene when IDT transitioned the traffic control over to B&W.

Sgt. Bonner provided no further information.

ATTACHMENT

Photo 1 taken by Sgt Bonner, dated 9 27 15
Photo 2 taken by Sgt Bonner, dated 9 27 15
Photo 3 taken by Sgt Bonner, dated 9 27 15
Photo 4 taken by Sgt Bonner, dated 9 27 15
Photo 5 taken by Sgt Bonner, dated 9_27_15
Photo 6 taken by Sgt Bonner, dated 9_27_15
Photo 7 taken by Sgt Bonner, dated 9 27 15
Photo 8 taken by Sgt Bonner, dated 9 27 15
Photo 9 taken by Sgt Bonner, dated 9_27_15
ISP Driver Vehicle Examination Report, dated 9_27_15

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EPA CID Case No. 1003-0101: 0247

DRIVER/VEHICLE EXAMINATION REPORT

Aspen 3.0.0.17

IDAHO STATE POLICE/MCSAP
COMMERCIAL VEHICLE SAFETY
700 S STRATFORD RD
MERIDIAN, ID 83642-6202
Phone: (208)884-7220 Fax: (208)884-7192

Report Number: ID3700006692
Inspection Date: 09/27/2015
Start: 04:59 AM MT End: 8:27:30 AM MT
Inspection Level: II - Walk-Around
HM Inspection Type: Non-Bulk

NEW PRIME INC
PO BOX 4208
SPRINGFIELD, MO 65808

Driver: DRAKE, STEVEN D

State: AL

USDOT#: 00003706 Phone#: (417)866-0001
MC/MX#: 140665 Fax#:
State#:

CoDriver: DUCK, ANGELA J

State: AL

Location: GLENNS FERRY, ID
Highway: I-84
County: ELMORE, ID

MilePost: 114

Shipper: PPG INDUSTRIES

Origin: SPRINGDALE, PA

Bill of Lading: 0811B65356

Destination: PORTLAND, OR

Cargo: PAINT

VEHICLE IDENTIFICATION

Unit	Type	Make	Year	State	Plate #	Equipment ID	VIN	GVWR	CVSA #	CVSA Issued #	OOS Sticker
1	TT	FRHT	2015	MO	95AN7R	651146	3AKJGLD58FSFN3414	52,000			
2	ST	WANC	2014	MO	26A172		1JJV532B4EL788978	65,000			

BRAKE ADJUSTMENTS: No Brake Measurements Required For Level 2

VIOLATIONS

Vio Code	Section	Unit	OOS	Citation #	Verify	Crash	Violations Discovered
396.3A1	396.3(a)(1)	2	Y		U	N	Inspection, repair and maintenance of parts & accessories: HUB/BRAKE ASSEMBLY CAUGHT FIRE WITH HAZMAT LOAD CAUSING HM RESPONSE

HazMat: 3 Flammable

Placard: Yes

Cargo Tank:

Special Checks: No Data for Special Checks.

Pursuant to the authority contained in I.C. 67-2901A (IDAPA 11.13.01.018 and 11.13.01.019), I hereby declare vehicle(s) followed by a "Y" in the out of service column of this report "OUT OF SERVICE." No person shall remove the Out of Service Stickers applied to this/these vehicle(s), or operate such vehicle(s), until the out of service defects have been repaired and the vehicle(s) have been restored to safe operating conditions.

NON-REGULATED/EXEMPT INTRASTATE MOTOR CARRIERS:

Pursuant to authority contained in Idaho Code 49-235, this vehicle or combination of vehicles has been found to be in an unsafe condition. I hereby declare vehicle(s) with defects followed by a "Y" in the Out of Service (OOS) column of this report to be parked for repairs. No person shall operate any vehicle after receiving this notice until the vehicle and its equipment has been placed in proper repair or adjustment and otherwise made to conform to Idaho Code Title 49.

I certify that the violations listed in the "OUT OF SERVICE" section of this report have been satisfactorily completed as of the date indicated. Failure to return this report with the required certification can result in penalties up to \$1,000 per day for each day the violation continues, up to a total of \$10,000.

Signature Of Repairer X: _____

Facility: _____

Date: _____

CARRIER CERTIFICATION: The undersigned certifies that all violations on this report have been corrected and action taken to ensure compliance with the Idaho Code, Motor Carrier Safety and HM Regulations, insofar as they are applicable to motor carriers and drivers. This certification MUST BE SIGNED by the Motor Carrier and RETURNED WITHIN 15 DAYS. Failure to make all repairs listed on this notice may subject the driver to disqualification and/or fines up to \$2,500.00. Employers may also be subject to fines up to \$10,000.00.

Signature Of Motor Carrier X: _____

Title: _____

Date: _____

Report Prepared By:
COLIN BONNER

Badge #:
2654

Copy Received By:
STEVEN DRAKE

Page 1 of 1

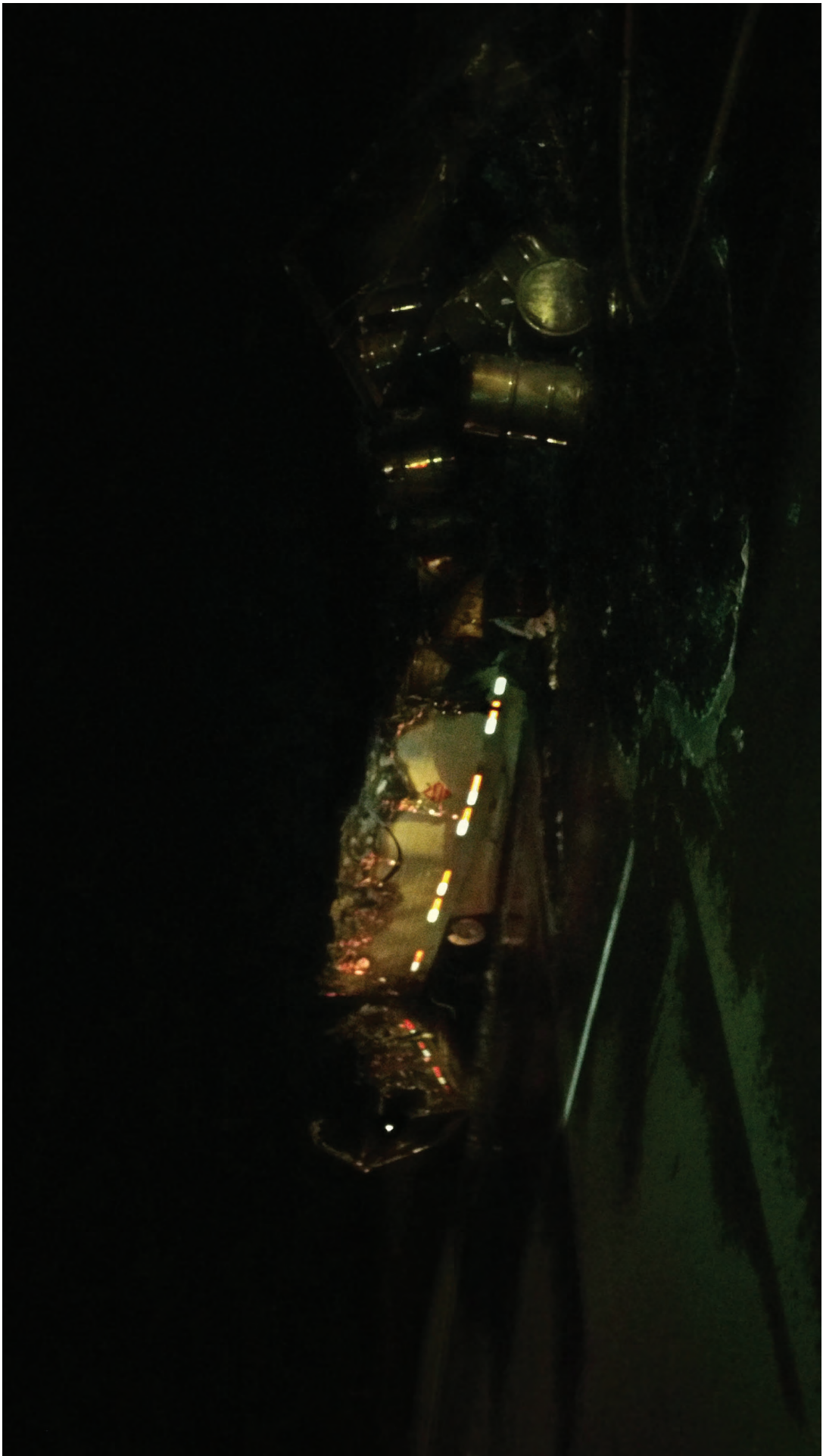


EPA 00003706 ID 003-016-0046 ID3700006692

X _____

X _____



















**United States Environmental Protection Agency
Criminal Investigation Division
Investigative Activity Report**

Case Number:

1003-0101

Case Title:

Prime, Inc

Subject of Report:

Interview - Documents from Derik Janousek, KHRFD

Reporting Office:

Boise, ID, Resident Office

Activity Date:

February 9, 2016

Reporting Official and Date:

Darin J. Mugleston

Resident Agent in Charge

18-FEB-2016, Signed by Darin J. Mugleston

Approving Official and Date:

Edward W. Owens

Assistant Special Agent in Charge

19-FEB-2016, Approved by Edward W. Owens

Assistant Special Agent in Charge

SYNOPSIS

On February 9, 2016, Fire Chief Derik Janousek, King Hill Rural Fire District (KHRFD), Glens Ferry, ID, was interviewed and provided EPA-CID with his incident report, and invoice, and photos regarding the September 27, 2015, trailer fire operated by Prime, Inc. (Prime).

DETAILS

On February 9, 2016, Fire Chief Derik Janousek, KHRFD, Glens Ferry, ID, (208) 599-0000, was phoned by Reporting Agent. Fire Chief Janousek was contacted regarding his knowledge and obtain any documents relating to the September 27, 2015, Prime trailer fire on Interstate 84, at mile post 115, near Glens Ferry, ID. Fire Chief Janousek said the following information:

Fire Chief Janousek advised he responded to the above September 27, 2015, Prime trailer fire on Interstate 84. When KHRFD arrived at the scene, the trailer was fully engulfed in flames and KHRFD extinguished the fire. Fire Chief Janousek claimed the trailer was carrying a load of 55 gallon drums of "Hazard Class 3" paint.

Fire Chief Janousek said there were several drums of paint that had spilled on the freeway and on the side of the road. Due to the spill, Fire Chief Janousek called the Idaho Regional Response Team for Region 4 (RRT4) to respond to the incident because of the paint spill.

After the RRT4 cleared the site of any immediate threat to human health, the site went from a hazardous materials (Hazmat) scene to a cleanup scene.

Once the scene became a cleanup scene, Fire Chief Janousek released the Incident Command to Sergeant Colin Bonner, Commercial Vehicle Safety Hazardous Materials Division, Idaho State Police (ISP).

To Fire Chief Janousek's knowledge, Prime directly hired a towing company, B&W Wrecker Service (B&W), Boise, ID, to do the Hazmat cleanup.

Fire Chief Janousek claimed he is familiar with B&W, but he has never known B&W to be a Hazmat cleanup company.

From Fire Chief Janousek's experience with Hazmat incidents, the company H2O is usually the company called to cleanup Hazmat incidents. Fire Chief Janousek reiterated he has never seen a towing company, specifically B&W, doing Hazmat cleanup.

According to Fire Chief Janousek, Sergeant Bonner was "shocked" over Prime hiring B&W as a Hazmat cleanup company for the same reasons that he (Fire Chief Janousek) never knew B&W to be a

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Investigative Activity Report**

Case Number:

1003-0101

Hazmat cleanup company.

After Fire Chief Janousek and Sergeant Bonner learned of the B&W, Sergeant Bonner made phone calls to determine if B&W was listed as a Hazmat cleanup company for the State of Idaho. Fire Chief Janousek believed Sergeant Bonner called the Idaho Department of Environmental Quality (IDEQ). Fire Chief Janousek recalled IDEQ told Sergeant Bonner there was no list of Hazmat approved cleanup companies for Idaho.

When KHRFD was preparing to leave the site, B&W Wrecker Service (B&W) had arrived at the scene to begin the cleanup of the site.

Janousek claimed that after the incident, KHRFD invoiced Prime's insurance company, RLI Insurance, for the cost of extinguishing the fire. Fire Chief Janousek said Prime's insurance company paid the full amount within an approximately a week.

When asked if someone at Prime will say the Incident Commander gave the permission to do a non-Hazmat cleanup, Fire Chief Janousek stated he never told anyone, including the Prime truck driver or anyone from B&W, the waste was non-hazardous and the waste did not need to be regulated. Fire Chief Janousek claimed he did not speak to anyone from Prime or B&W about the incident.

After the phone call with Reporting Agent, Fire Chief Janousek provided, via email, Reporting Agent, with KHRFD's Incident Report, an Invoice, and digital images Fire Chief Janousek took regarding the September 27, 2015, Prime trailer fire. The Incident Report and the Invoice are attached.

The digital images were burned to a compact disk by Reporting Agent. The compact disk will be kept in the Boise Resident Office. A copy of the Chain of Custody is attached as a place holder for this report.

The above images were also placed into a portable document format file, which is attached.

ATTACHMENT

KHRFDs Incident Report dated 9 27 15
KHRFDs Invoice to Prime, dated 9 28 15
PDF Containing KHRFD Photos, dated 9_27_15
COC for CD of KHRFD Photos

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EPA CID Case No. 1003-0101: 0260



United States Environmental Protection Agency
Office of Criminal Enforcement, Forensics & Training
CHAIN OF CUSTODY RECORD

[CONTINUATION PAGE]

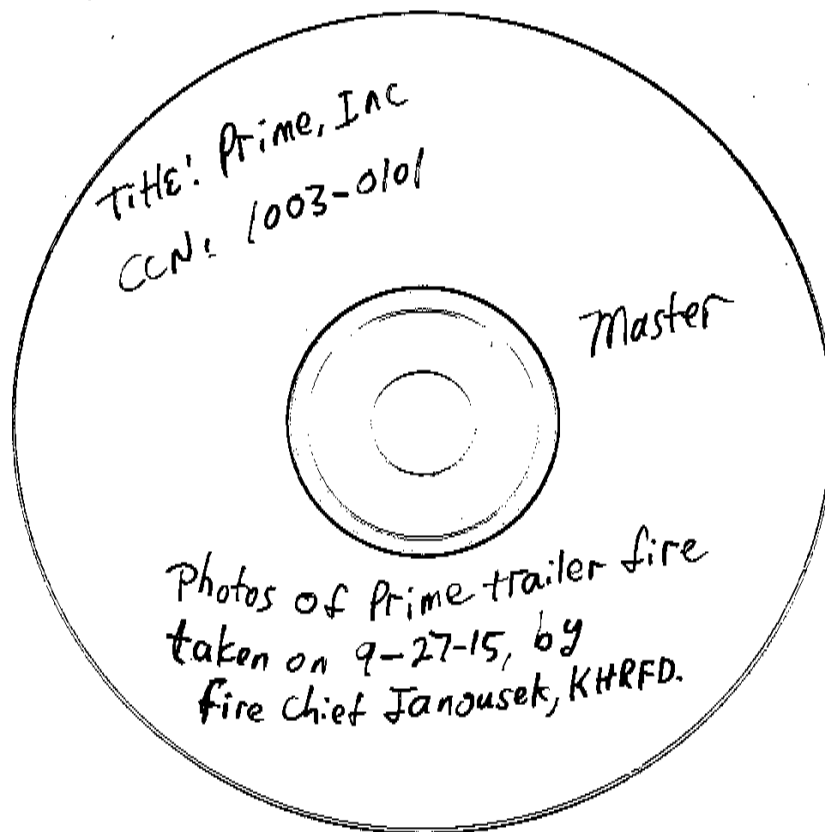
Item/Sample Number	Date / Time	Relinquished By	Received By	6. Purpose of Change of Custody	7. Remarks:
		Print Name & Organization:	Print Name & Organization:		
		Signature:	Signature:		
		Print Name & Organization:	Print Name & Organization:		
		Signature:	Signature:		
		Print Name & Organization:	Print Name & Organization:		
		Signature:	Signature:		
		Print Name & Organization:	Print Name & Organization:		
		Signature:	Signature:		
FINAL DISPOSITION ACTION					
Release to Owner or Other:					
Destroy:					
Other (specify):					
Authorized By:	Printed Name:	Signature:	Title & Organization:	Date:	

FORM: OCEFT 7-01(b) (2/11)

ORIGINAL: WITH ITEMS/SAMPLES

COPY: CASE/PROJECT FILE

CHAIN OF CUSTODY NUMBER ____ PAGE ____ OF ____



A		FDID 39336	ID State	MM DD YYYY Incident Date 09/27/2015	Station	Incident Number 0000927	Exposure 0	NFIRS - 1 Basic	
B Location									
1 - Street address		MP115 West Interstate 84							
Address Type		Number/Milepost		Prefix		Street or Highway		Street Type Suffix	
				Hammett				ID State Zip Code 83627	
Apt./Suite/Room		City							
Census Tract		Cross street or directions, as applicable							
C Incident Type		E1 Dates & Times				E2 Shifts & Alarms			
132 - Road freight or tr		Midnight is 0000				Local Option			
Incident Type		Month Day Year Hour Min Seconds				Shift or platoon Alarms District			
D Aid Given or Received		Alarm 09/27/2015 02:47							
Their FDID Their State Their Incident Number		Arrival 09/27/2015 02:55				E3 Special Studies			
N - None		Controlled				Local Option			
Type Aid Given or Received		Last Unit Cleared 09/27/2015 07:13				Special Study ID# Special Study Value			
F Actions Taken		G1 Resources			G2 Estimated Dollar Losses & Values				
11 - Extinguish		<input checked="" type="checkbox"/> Check this box and skip this section if an Apparatus or Personnel form is used.			LOSSES: Required for all fires if known. Optional for non fires.				
41 - Identify, analyze hazardous materials		Apparatus Personnel			Property \$ 50000				
55 - Establish safe area		Suppression 4 6			Contents \$ 200000				
Actions Taken		EMS 1 2			PRE-INCIDENT VALUE: Optional				
		Other 0 0			Property \$ 50000				
		<input checked="" type="checkbox"/> Check box if resource counts include aid received resources.			Contents \$ 200000				
H1 Casualties		H2 Detector							
Deaths Injuries		H3 Hazardous Materials Release							
Fire Service 0 0		Mixed Use Property							
Civilian 0 0		J Property Use 961 - Highway or divided highway							
K1 Person/Entity Involved									
Steven Drake									
Mr., Ms., Mrs. First Name MI Last Name Suffix									
6301 Sarasota Dr #b									
Number Prefix Street or Highway Street Type Suffix									
Post Office Box Apt./Suite/Floor City									
AL 36609 Prime Inc. 8006900087									
State Zip Code Business name (if applicable) Area Code Phone Number									
K2 Owner									
Mr., Ms., Mrs. First Name MI Last Name Suffix									
Number Prefix Street or Highway Street Type Suffix									
Post Office Box Apt./Suite/Floor City									
Prime Inc. 8006900087									
State Zip Code Business name (if applicable) Area Code Phone Number									

EPA Case No. 10030401-0263

A	FDID <u>39336</u>	State <u>ID</u>	Incident Date <u>09/27/2015</u>	Station <u></u>	Incident Number <u>0000927</u>	Exposure <u>0</u>	NFIRS - 2 Fire
----------	-------------------	-----------------	---------------------------------	-----------------	--------------------------------	-------------------	---------------------------

B Property Details B1 <u>0</u> <u>Y</u> Not Residential <small>Estimated number of residential living units in building of origin</small> B2 <u>0</u> <small>Number of buildings involved</small> B3 <u></u> <small>Acres burned (outside fires)</small>	C On-Site Materials or Products <div style="border: 1px solid black; height: 150px; width: 100%;"></div> <div style="display: flex; justify-content: space-between; font-size: small;"> On-site materials On-site materials use </div>
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

D Ignition D1 <u>83 - Engine area, running ge</u> <small>Area of fire origin</small> D2 <u>12 - Radiated, conducted hea</u> <small>Heat source</small> D3 <u>84 - Tire</u> <small>Item first ignited</small> D4 <u></u> <small>Type of material first ignited</small> <u></u> <small>Contained to object of origin</small>	E1 Cause of Ignition <u>3 - Failure of equipment or heat</u> <small>Cause of ignition</small> E2 Factors Contributing To Ignition <u>20 - Mechanical failure, malfunction, other</u> <u>70 - Fire spread or control, other</u> <small>Factors contributing to ignition</small>	E3 Human Factors Contributing To Ignition <div style="border: 1px solid black; height: 100px; width: 100%;"></div> <div style="font-size: small;"> Estimated age of person involved <u></u> Gender of person involved <u></u> </div>
-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

F1 Equipment Involved In Ignition <u></u> <small>Equipment involved</small> <u></u> <small>Brand</small> <u></u> <small>Model</small> <u></u> <small>Serial #</small> <u></u> <small>Year</small>	F2 Equipment Power <u></u> <small>Equipment power source</small> F3 Equipment Portability <u></u> <small>Equipment portability</small>	G Fire Suppression Factors <div style="border: 1px solid black; height: 150px; width: 100%;"></div> <small>Fire suppression factors</small>
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------

H1 Mobile Property Involved <u>3 - Involved in ignitid</u> <small>Mobile property involved</small> <u></u> <small>Mobile property model</small> <u></u> <small>License plate number</small>	H2 Mobile Property Type & Make <u>23 - Trailer - semi, designed for fre</u> <small>Mobile property type</small> <u>CC - Crane Carrier (CCC)</u> <small>Mobile property make</small> <u></u> <small>Year</small> <u></u> <small>VIN number</small>	Local Use <div style="border: 1px solid black; height: 150px; width: 100%;"></div>
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EPA C/D Case No. 1003-0101: 0264

A	FDID	ID	MM	DD	YYYY	Station	Incident Number	Exposure	NFIRS Remarks
	39336		09	27	2015		0000927	0	

Remarks

When we arrived on scene, the trailer was fully engulfed. The fire started at the rear of the trailer. About a mile away from the scene, there was a strip of tire laying in the slow lane of the interstate. The fire likely started from the blown tire. The driver said that he did not hear the tire blow. The trailer was loaded with 55 gallon drums of Hazard Class 3 paint approximately 40,000 pounds. We called for region IV Haz-Mat to respond because of the spill. After extinguishing the flames, we found several drums had spilled on the freeway and on the side of the road. All of the drums had vented that were still in the trailer. It was our determination that it went from a haz-mat scene to a clean-up scene. We released Region IV Haz-Mat after that discussion. B&W Wrecker was on scene when we left, they were going to be in charge of the clean-up.

M	Authorization				
	Officer in charge ID	Signature	Position or rank	Assignment	Month Day Year
		Derik Janousek	Fire Chief		09/27/2015
	Member making report ID	Signature	Position or rank	Assignment	Month Day Year

EPA CID Case No. 1003-0101- 0265

KING HILL RURAL FIRE DISTRICT

PO BOX 472

Glenns Ferry, ID 83623

Invoice

Date	Invoice #
9/28/2015	927

Bill To
RLI Insurance c/o Prime Inc. Policy # LET0010124

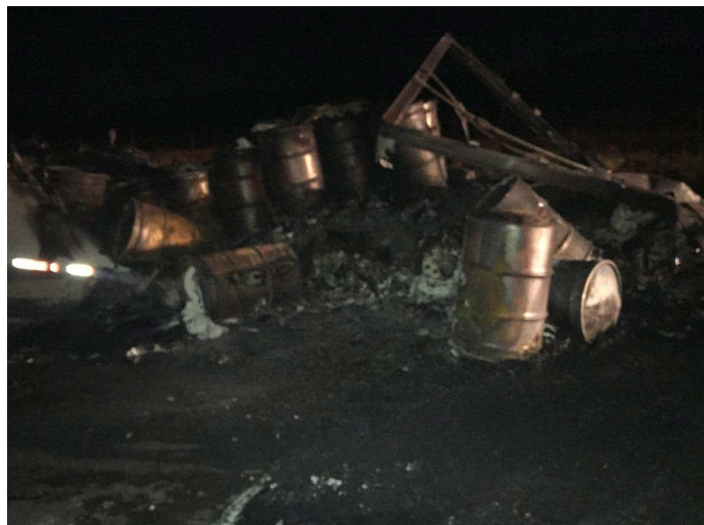
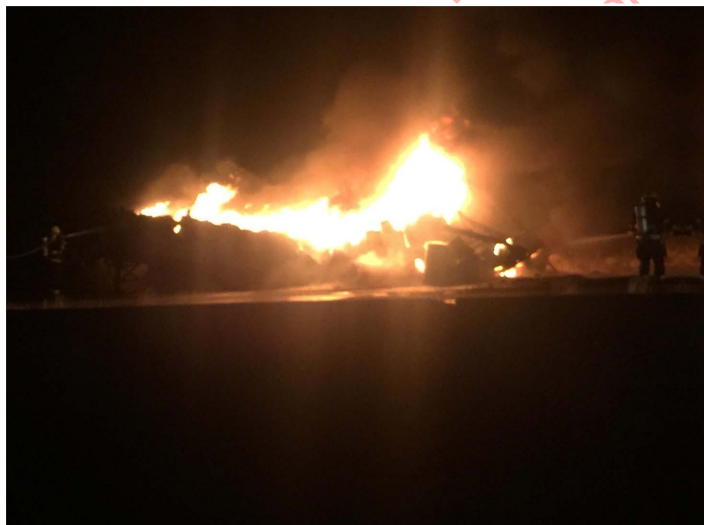
P.O. No.	Terms	Project

Quantity	Description	Rate	Amount
5	Brush Unit 30	125.00	625.00
5	Brush Unit #22	111.00	555.00
5	Tender #25	146.00	730.00
5	Tender #26	146.00	730.00
5	Command #1	90.00	450.00
		Total	\$3,090.00

EPA CID Case No. 1008-0101 : 0266

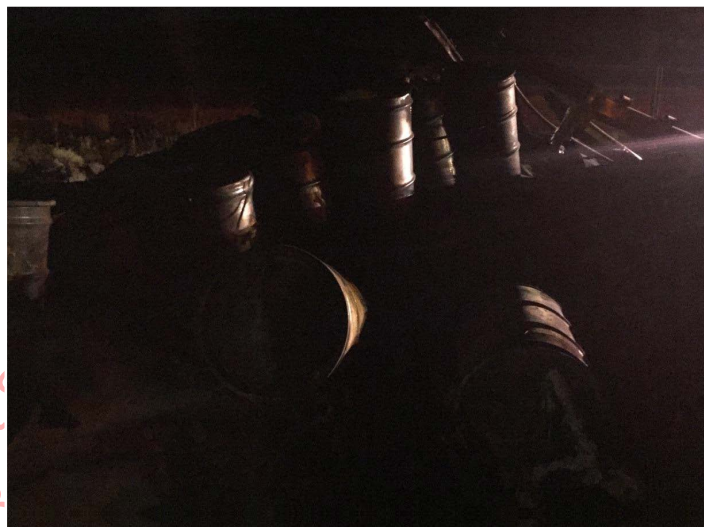
Title: Prime, Inc.
CCN: 1003-0101

Photos taken by Fire Chief Janousek, King Hill Rural Fire District
On September 27, 2015



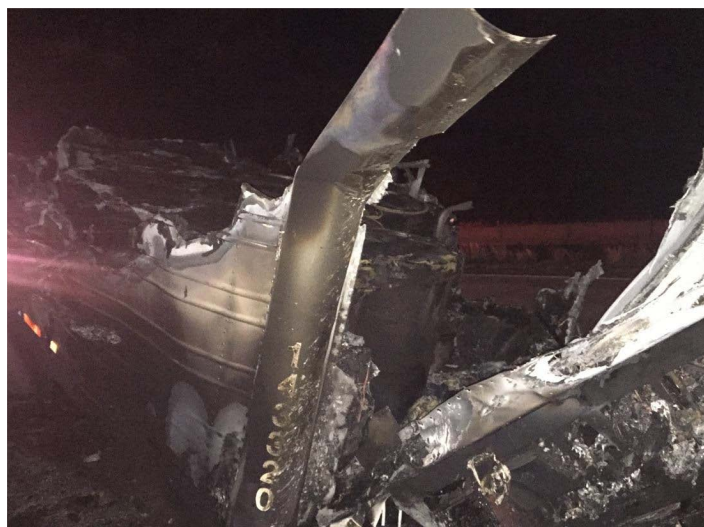
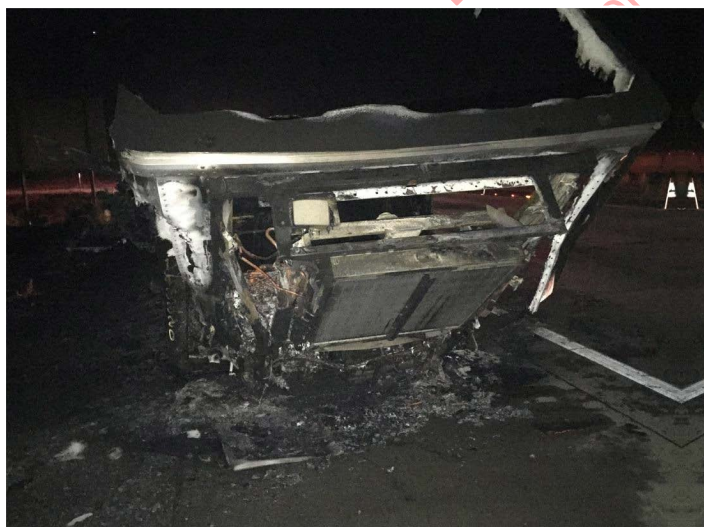
Title: Prime, Inc.
CCN: 1003-0101

Photos taken by Fire Chief Janousek, King Hill Rural Fire District
On September 27, 2015



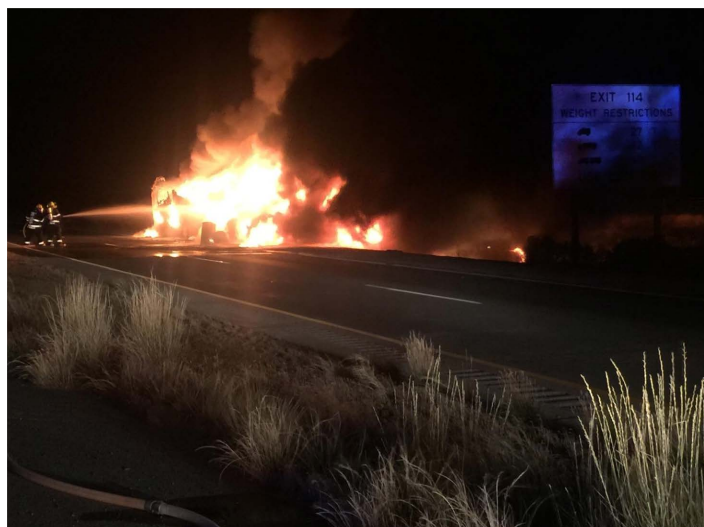
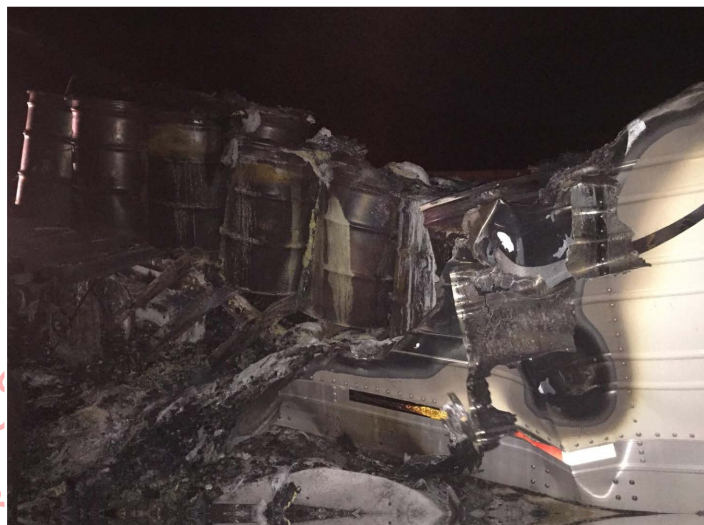
Title: Prime, Inc.
CCN: 1003-0101

Photos taken by Fire Chief Janousek, King Hill Rural Fire District
On September 27, 2015



Title: Prime, Inc.
CCN: 1003-0101

Photos taken by Fire Chief Janousek, King Hill Rural Fire District
On September 27, 2015



Title: Prime, Inc.
CCN: 1003-0101

Photos taken by Fire Chief Janousek, King Hill Rural Fire District
On September 27, 2015



Law Enforcement Sensitive
Do NOT Release
Document on Loan from EPA CID

**United States Environmental Protection Agency
Criminal Investigation Division
Investigative Activity Report**

Case Number:

1003-0101

Case Title:

Prime, Inc

Subject of Report:

Incident Report from Boise Fire Department

Reporting Office:

Boise, ID, Resident Office

Activity Date:

February 9, 2016

Reporting Official and Date:

Darin J. Mugleston

Resident Agent in Charge

18-FEB-2016, Signed by Darin J. Mugleston

Approving Official and Date:

Edward W. Owens

Assistant Special Agent in Charge

19-FEB-2016, Approved by Edward W. Owens

Assistant Special Agent in Charge

SYNOPSIS

On February 9, 2016, Boise Fire Department, Boise, ID, provided EPA-CID with Idaho's Regional Response Team for Region 4's (RRT4) incident report for the September 27, 2015, trailer fire operated by Prime, Inc. (Prime) on Interstate 84, Glens Ferry, ID.

DETAILS

On February 9, 2016, Rebecca Keralla, Boise Fire Department, (208) 570-6500, provided, via email, Reporting Agent with RRT4's Incident Report for the September 27, 2015, Prime trailer fire on Interstate 84 at mile post 115, near Glens Ferry, ID. The Incident Report is attached.

ATTACHMENT

RRT4s Incident Report, dated 9_27_15

This document contains neither recommendations nor conclusions of the EPA.
It is the property of the EPA and is loaned to your agency;
it and its contents are not to be distributed outside your agency.

EPA CID Case No. 1003-0101: 0272



Dennis Doan
Chief

City Hall West
333 N. Mark Stall Place
Boise, Idaho 83704-0644

Phone
208/570-6500

Fax
208/570-6586

TDD/TTY
800/377-3529

Web
www.cityofboise.org/fire

Mayor
David H. Bieler

City Council
President
Maryanne Jordan

Council Pro Tem
Elaine Clegg

Scol Ludwig
Lauren McLean
Ben Quintana
TJ Thomson

Fire Department

February 8, 2016

Darin Mugleston
950 W. Bannock Street, Suite 900
Boise, Idaho 83702

RE: REQUEST FOR PUBLIC RECORD / September 27, 2015 Glenns Ferry

Dear Darin:

In response to your request for a copy of a public record, I have enclosed the record in accordance with Idaho law.

Your request for information under the Idaho Public Records Act and this response has been reviewed by our legal counsel. Any statutory exemptions regarding denials or redactions which may apply and are provided herein shall not constitute a waiver of any and all other legal bases or privileges which may also be applicable. All record responses may be appealed by filing a petition in conformance with the provisions of the Idaho Code Title 74, Chapter 1. Your petition must be filed in the Fourth Judicial District Court of Idaho within one hundred and eighty (180) calendar days of the mailing of this notice. Any release of public records (textual, audio, video, graphical, pictorial, digital or otherwise) in response to this request is not permission from the City as the copyright and/or trademark owner to allow you to republish or otherwise make use of the records in violation of state or federal trademark and/or copyright law.

Sincerely,

Rebecca Keralla
Boise Fire Department
208-570-6500



BOISE CITY FIRE DEPARTMENT

RECORDS REQUEST FORM

Name: Darin Mugleston, Special Agent
Company/Department: U.S. EPA - Criminal Investigation Division
Address: 950 W. Bannock St, Suite 900, Boise, ID 83702
Phone: (208) 378-6515 Fax: (208) 378-5770
Email: Mugleston.darin@epa.gov

Please indicate type of information requested and be specific:

X **Incident Report** 9/27/15, Glens Ferry,
(Date, Location, Incident #) #16530, Boise Regional
Response Team

 Fire Investigation Report
(Date, Location, Incident #, Investigator)

 Environmental Requests
(Location of Storage Tanks,
Hazardous Materials)

 Other
(Please Specify)

Request Received By: _____ Date / Time: _____

Boise City Fire Department 333 N. Mark Stall Place Boise, Idaho 83704
Phone: 208.570.6500 Fax: 208.570.6586

EPA CID Case No. 1003-0101: 0274

A		MM DD YYYY 09 27 2015		B17 Station		15-8016530 Incident Number		000 Exposure		<input type="checkbox"/> Delete <input type="checkbox"/> Change <input type="checkbox"/> No Activity		NFIRS -1 Basic	
B Location* <input type="checkbox"/> Check this box to indicate that the address for this incident is provided on the Wildland Fire Census Tract Module in Section B "Alternative Location Specification". Use only for Wildland fires.													
<input checked="" type="checkbox"/> Street address <input type="checkbox"/> Intersection <input type="checkbox"/> In front of <input type="checkbox"/> Rear of <input type="checkbox"/> Adjacent to <input type="checkbox"/> Directions													
Number/Milepost Prefix GLENSFERRY Street or Highway Apt./Suite/Room City Glenns Perry ID 83623 State Zip Code Cross street or directions, as applicable													
C Incident Type *				E1 Date & Times				E2 Shift & Alarms					
413 Oil or other combustible liquid Incident Type				Check boxes if dates are the same as Alarm. ALARM always required. Date. Alarm * 09 27 2015 04:26:55 ARRIVAL required, unless canceled or did not arrive				Local Option Shift or Alarms District Platoon BOISE					
D Aid Given or Received*				E3 Special Studies									
1 <input type="checkbox"/> Mutual aid received 2 <input type="checkbox"/> Automatic aid recv. 3 <input type="checkbox"/> Mutual aid given 4 <input type="checkbox"/> Automatic aid given 5 <input type="checkbox"/> Other aid given N <input checked="" type="checkbox"/> None				Controlled LAST UNIT CLEARED, required except for wildland fires Last Unit Cleared 09 27 2015 09:08:26				Local Option Special Study ID# Special Study Value					
F Actions Taken *				G1 Resources *				G2 Estimated Dollar Losses & Values					
41 Identify, analyze Primary Action Taken (1) Additional Action Taken (2) Additional Action Taken (3)				<input checked="" type="checkbox"/> Check this box and skip this section if an Apparatus or Personnel form is used. Apparatus Personnel Suppression 0001 0006 EMS Other <input type="checkbox"/> Check box if resource counts include aid received resources.				LOSSES: Required for all fires if known. Optional for non fires. None Property \$ 000,000 Contents \$ 000,000 PRE-INCIDENT VALUE: Optional Property \$ 000,000 Contents \$ 000,000					
Completed Modules				H1* Casualties				H3 Hazardous Materials Release					
<input type="checkbox"/> Fire-2 <input type="checkbox"/> Structure-3 <input type="checkbox"/> Civil Fire Cas.-4 <input type="checkbox"/> Fire Serv. Cas.-5 <input type="checkbox"/> EMS-6 <input type="checkbox"/> HazMat-7 <input type="checkbox"/> Wildland Fire-8 <input checked="" type="checkbox"/> Apparatus-9 <input checked="" type="checkbox"/> Personnel-10 <input type="checkbox"/> Arson-11				Deaths Injuries Fire Service Civilian H2 Detector Required for Confined Fires. 1 <input type="checkbox"/> Detector alerted occupants 2 <input type="checkbox"/> Detector did not alert them U <input type="checkbox"/> Unknown				N <input type="checkbox"/> None 1 <input type="checkbox"/> Natural Gas: slow leak, no evacuation or HazMat actions 2 <input type="checkbox"/> Propane gas: <11 lb. tank (as in home BBQ grill) 3 <input type="checkbox"/> Gasoline: vehicle fuel tank or portable container 4 <input type="checkbox"/> Kerosene: fuel burning equipment or portable storage 5 <input type="checkbox"/> Diesel fuel/fuel oil: vehicle fuel tank or portable 6 <input type="checkbox"/> Household solvents: home/office spill, cleanup only 7 <input type="checkbox"/> Motor oil: from engine or portable container 8 <input type="checkbox"/> Paint: from paint cans totaling < 55 gallons 0 <input type="checkbox"/> Other: Special HazMat actions required or spill > 55gal., Please complete the HazMat form					
J Property Use*				I Mixed Use Property									
Structures 131 <input type="checkbox"/> Church, place of worship 161 <input type="checkbox"/> Restaurant or cafeteria 162 <input type="checkbox"/> Bar/Tavern or nightclub 213 <input type="checkbox"/> Elementary school or kindergarten 215 <input type="checkbox"/> High school or junior high 241 <input type="checkbox"/> College, adult education 311 <input type="checkbox"/> Care facility for the aged 331 <input type="checkbox"/> Hospital Outside 124 <input type="checkbox"/> Playground or park 655 <input type="checkbox"/> Crops or orchard 669 <input type="checkbox"/> Forest (timberland) 807 <input type="checkbox"/> Outdoor storage area 919 <input type="checkbox"/> Dump or sanitary landfill 931 <input type="checkbox"/> Open land or field				341 <input type="checkbox"/> Clinic, clinic type infirmary 342 <input type="checkbox"/> Doctor/dentist office 361 <input type="checkbox"/> Prison or jail, not juvenile 419 <input type="checkbox"/> 1-or 2-family dwelling 429 <input type="checkbox"/> Multi-family dwelling 439 <input type="checkbox"/> Rooming/boarding house 449 <input type="checkbox"/> Commercial hotel or motel 459 <input type="checkbox"/> Residential, board and care 464 <input type="checkbox"/> Dormitory/barracks 519 <input type="checkbox"/> Food and beverage sales 936 <input type="checkbox"/> Vacant lot 938 <input type="checkbox"/> Graded/care for plot of land 946 <input type="checkbox"/> Lake, river, stream 951 <input type="checkbox"/> Railroad right of way 960 <input type="checkbox"/> Other street 961 <input checked="" type="checkbox"/> Highway/divided highway 962 <input type="checkbox"/> Residential street/driveway				539 <input type="checkbox"/> Household goods, sales, repairs 579 <input type="checkbox"/> Motor vehicle/boat sales/repair 571 <input type="checkbox"/> Gas or service station 599 <input type="checkbox"/> Business office 615 <input type="checkbox"/> Electric generating plant 629 <input type="checkbox"/> Laboratory/science lab 700 <input type="checkbox"/> Manufacturing plant 819 <input type="checkbox"/> Livestock/poultry storage (barn) 882 <input type="checkbox"/> Non-residential parking garage 891 <input type="checkbox"/> Warehouse 981 <input type="checkbox"/> Construction site 984 <input type="checkbox"/> Industrial plant yard Lookup and enter a Property Use code only if you have NOT checked a Property Use box: Property Use 961 Highway or divided highway NFIRS-1 Revision 03/11/99					

K1 Person/Entity Involved

Local Option

Business name (if applicable)

Area Code

Phone Number

☐ Check This Box if same address as incident location. Then skip the three duplicate address lines.

Mr.,Ms., Mrs. First Name

MI

Last Name

Suffix

Number

Prefix

Street or Highway

Street Type

Suffix

Post Office Box

Apt./Suite/Room

City

State

Zip Code

☐ More people involved? Check this box and attach Supplemental Forms (NFIRS-18) as necessary

K2 Owner

☐ Same as person involved? Then check this box and skip The rest of this section.

Local Option

Business name (if Applicable)

Area Code

Phone Number

☐ Check this box if same address as incident location. Then skip the three duplicate address lines.

Mr.,Ms., Mrs. First Name

MI

Last Name

Suffix

Number

Prefix

Street or Highway

Street Type

Suffix

Post Office Box

Apt./Suite/Room

City

State

Zip Code

L Remarks

Local Option

10/02/2015 15:12:05 B1824

TRACTOR TRAILER FIRE, ONLY THE TRAILER INVOLVED, 72 55 GALLON DRUMS, 4 PAILS OF UN1263. PAINT. TRAILER WAS INVOLVED IN FIRE, TRACTOR WAS CLEARED FROM FIRE. MOST IF NOT ALL DRUMS HAD VENTED THROUGH THE BUNGS AND CONTRIBUTED TO THE FIRE. BRIDGE CALL CAME PRIOR TO FIRE EXTINGUISHMENT. RRT4 WAS REQUESTED. FIRE WAS OUT ON RRT4 ARRIVAL. SCENE SURVEY CONDUCTED. SHIPPING PAPERS VIEWED. NO ACTIVE LEAKS. CONSULTED WITH IC AND ISP (CONNER BOLLEN). ALL AGREED THAT SCENE WAS NO LONGER MITIGATION BUT CLEAN UP. SECOND BRIDGE CALL, CONFIRMED COURSE OF ACTION WAS CORRECT AND RRT4 WAS RELEASED BY COMMAND.

I Authorization

B1824

Officer in charge ID

Riedinger, Daryl

Signature

CAPT

Position or rank

Assignment

10

Month

02

Day

2015

Year

Check

Box if

☒

B1824

same as Officer Member making report ID in charge.

Riedinger, Daryl Andrew

Signature

CAPT

Position or rank

Assignment

10

Month

02

Day

2015

Year

01100 FDID *	ID State *	MM DD YYYY 9 27 2015 Incident Date *	B17 Station	15-8016530 Incident Number *	000 Exposure *	Complete Narrative
Narrative: 10/02/2015 15:12:05 B1824 TRACTOR TRAILER FIRE, ONLY THE TRAILER INVOLVED, 72 55 GALLON DRUMS, 4 PAILS OF UN1263. PAINT. TRAILER WAS INVOLVED IN FIRE, TRACTOR WAS CLEARED FROM FIRE. MOST IF NOT ALL DRUMS HAD VENTED THROUGH THE BUNGS AND CONTRIBUTED TO THE FIRE. BRIDGE CALL CAME PRIOR TO FIRE EXTINGUISHMENT. RRT4 WAS REQUESTED. FIRE WAS OUT ON RRT4 ARRIVAL. SCENE SURVEY CONDUCTED. SHIPPING PAPERS VIEWED. NO ACTIVE LEAKS. CONSULTED WITH IC AND ISP (CONNER BOLLEN). ALL AGREED THAT SCENE WAS NO LONGER MITIGATION BUT CLEAN UP. SECOND BRIDGE CALL, CONFIRMED COURSE OF ACTION WAS CORRECT AND RRT4 WAS RELEASED BY COMMAND.						

A		FDID <u>01100</u> *		State <u>ID</u> *		MM <u>9</u> DD <u>27</u> YYYY <u>2015</u> *		Station <u>B17</u> *		Incident Number <u>15-8016530</u> *		Exposure <u>000</u> *		<input type="checkbox"/> Delete <input type="checkbox"/> Change		NFIRS - 9 Apparatus or Resources	
B Apparatus or * Resource		Date and Times					Sent <input checked="" type="checkbox"/>	Number of * People	Use <small>Check ONE box for each apparatus to indicate its main use at the incident.</small>	Actions Taken							
		Check if same as alarm date Month Day Year Hour Min															
1 ID <u>HAZ17</u> Type <u>60</u>		Dispatch <input type="checkbox"/>	<u>9</u>	<u>27</u>	<u>2015</u>	<u>04:26</u>	<input checked="" type="checkbox"/>	<u>6</u>	<input checked="" type="checkbox"/> Suppression <input type="checkbox"/> EMS <input type="checkbox"/> Other	41 <u> </u>							
		Arrival <input checked="" type="checkbox"/>	<u>9</u>	<u>27</u>	<u>2015</u>	<u>05:45</u>											
		Clear <input type="checkbox"/>	<u>9</u>	<u>27</u>	<u>2015</u>	<u>09:08</u>											
2 ID <u> </u> Type <u> </u>		Dispatch <input type="checkbox"/>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<input type="checkbox"/>	<u> </u>	<input type="checkbox"/> Suppression <input type="checkbox"/> EMS <input type="checkbox"/> Other	<u> </u> <u> </u>							
3 ID <u> </u> Type <u> </u>		Dispatch <input type="checkbox"/>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<input type="checkbox"/>	<u> </u>	<input type="checkbox"/> Suppression <input type="checkbox"/> EMS <input type="checkbox"/> Other	<u> </u> <u> </u>							
4 ID <u> </u> Type <u> </u>		Dispatch <input type="checkbox"/>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<input type="checkbox"/>	<u> </u>	<input type="checkbox"/> Suppression <input type="checkbox"/> EMS <input type="checkbox"/> Other	<u> </u> <u> </u>							
5 ID <u> </u> Type <u> </u>		Dispatch <input type="checkbox"/>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<input type="checkbox"/>	<u> </u>	<input type="checkbox"/> Suppression <input type="checkbox"/> EMS <input type="checkbox"/> Other	<u> </u> <u> </u>							
6 ID <u> </u> Type <u> </u>		Dispatch <input type="checkbox"/>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<input type="checkbox"/>	<u> </u>	<input type="checkbox"/> Suppression <input type="checkbox"/> EMS <input type="checkbox"/> Other	<u> </u> <u> </u>							
7 ID <u> </u> Type <u> </u>		Dispatch <input type="checkbox"/>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<input type="checkbox"/>	<u> </u>	<input type="checkbox"/> Suppression <input type="checkbox"/> EMS <input type="checkbox"/> Other	<u> </u> <u> </u>							
8 ID <u> </u> Type <u> </u>		Dispatch <input type="checkbox"/>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<input type="checkbox"/>	<u> </u>	<input type="checkbox"/> Suppression <input type="checkbox"/> EMS <input type="checkbox"/> Other	<u> </u> <u> </u>							
9 ID <u> </u> Type <u> </u>		Dispatch <input type="checkbox"/>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<input type="checkbox"/>	<u> </u>	<input type="checkbox"/> Suppression <input type="checkbox"/> EMS <input type="checkbox"/> Other	<u> </u> <u> </u>							

Type of Apparatus or Resources

Ground Fire Suppression 11 Engine 12 Truck or aerial 13 Quint 14 Tanker & pumper combination 16 Brush truck 17 ARF (Aircraft Rescue and Firefighting) 10 Ground fire suppression, other Heavy Ground Equipment 21 Dozer or plow 22 Tractor 24 Tanker or tender 20 Heavy equipment, other Aircraft 41 Aircraft: fixed wing tanker 42 Helitanker 43 Helicopter 40 Aircraft, other	Marine Equipment 51 Fire boat with pump 52 Boat, no pump 50 Marine apparatus, other Support Equipment 61 Breathing apparatus support 62 Light and air unit 60 Support apparatus, other Medical & Rescue 71 Rescue unit 72 Urban Search & rescue unit 73 High angle rescue unit 75 BLS unit 76 ALS unit 70 Medical and rescue unit, other	<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> More Apparatus? Use Additional Sheets </div> Other 91 Mobile command post 92 Chief officer car 93 HazMat unit 94 Type 1 hand crew 95 Type 2 hand crew 99 Privately owned vehicle 00 Other apparatus/resource NN None UU Undetermined
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

NFIRS-9 Revision 11/17/98

A <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div>FDID * 01100</div> <div>ID * State *</div> <div>MM DD YYYY 9 27 2015</div> <div>Station B17</div> <div>Incident Number * 15-8016530</div> <div>Exposure * 000</div> <div> <input type="checkbox"/> Delete <input type="checkbox"/> Change </div> <div style="border: 1px solid black; padding: 2px;"> NFIRS - 10 Personnel </div> </div>	
--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

B Apparatus or Resource	Date and Times	Sent	Number of People	Use	Actions Taken
Use codes listed below	<small>Check if same as alarm date</small> <div style="display: flex; justify-content: space-between;"> Month Day Year Hours/mins </div>	<input checked="" type="checkbox"/>		<small>Check ONE box for each apparatus to indicate its main use at the incident.</small> <input checked="" type="checkbox"/> Suppression <input type="checkbox"/> EMS <input type="checkbox"/> Other	<small>List up to 4 actions for each apparatus and each personnel.</small> <div style="display: flex; justify-content: space-between;"> <div>41</div> <div></div> </div>

1	ID HAZ17	Type 60	Dispatch <input type="checkbox"/> 9 27 2015 04:26 Arrival <input checked="" type="checkbox"/> 9 27 2015 05:45 Clear <input type="checkbox"/> 9 27 2015 09:08	Sent <input checked="" type="checkbox"/>	6	<input checked="" type="checkbox"/> Suppression <input type="checkbox"/> EMS <input type="checkbox"/> Other	<div style="display: flex; justify-content: space-between;"> <div>41</div> <div></div> </div>
---	----------	---------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------	---	-------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------

Personnel ID	Name	Rank or Grade	Attend <input checked="" type="checkbox"/>	Action Taken	Action Taken	Action Taken	Action Taken
B11047	Bisagno, Michael	FF3	X				
B11881	Greenwood, James	FF1	X				
B1824	Riedinger, Daryl	CAPT	X				
B3296	Turley, Fred	SFF	X				
B7518	Mitchell, Roy	CAPT	X				
B7627	Walters, Jeff	SFF	X				

2	ID	Type	Dispatch <input type="checkbox"/> Arrival <input type="checkbox"/> Clear <input type="checkbox"/>	Sent <input type="checkbox"/>		<input type="checkbox"/> Suppression <input type="checkbox"/> EMS <input type="checkbox"/> Other	<div style="display: flex; justify-content: space-between;"> <div></div> <div></div> </div>
---	----	------	---------------------------------------------------------------------------------------------------------	-------------------------------	--	--------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------

Personnel ID	Name	Rank or Grade	Attend <input checked="" type="checkbox"/>	Action Taken	Action Taken	Action Taken	Action Taken
			<input type="checkbox"/>				
			<input type="checkbox"/>				
			<input type="checkbox"/>				
			<input type="checkbox"/>				
			<input type="checkbox"/>				
			<input type="checkbox"/>				

3	ID	Type	Dispatch <input type="checkbox"/> Arrival <input type="checkbox"/> Clear <input type="checkbox"/>	Sent <input type="checkbox"/>		<input type="checkbox"/> Suppression <input type="checkbox"/> EMS <input type="checkbox"/> Other	<div style="display: flex; justify-content: space-between;"> <div></div> <div></div> </div>
---	----	------	---------------------------------------------------------------------------------------------------------	-------------------------------	--	--------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------

Personnel ID	Name	Rank or Grade	Attend <input checked="" type="checkbox"/>	Action Taken	Action Taken	Action Taken	Action Taken
			<input type="checkbox"/>				
			<input type="checkbox"/>				
			<input type="checkbox"/>				
			<input type="checkbox"/>				
			<input type="checkbox"/>				
			<input type="checkbox"/>				

<div>01100</div> <div>FDID *</div>		<div>ID</div> <div>State *</div>	<div>MM</div> <div>9</div>	<div>DD</div> <div>27</div>	<div>YYYY</div> <div>2015</div>	<div>B17</div> <div>Station</div>	<div>15-8016530</div> <div>Incident Number *</div>	<div>000</div> <div>Exposure *</div>	<div>Responding Personnel</div>		
Staff ID\Staff Name	Unit	Activity	Position	Rank	PayScl	Hrs	HrsPd	Pts			
B11047 Bisagno, Michael J	HAZ17	IR Incident		FF3		4.69	0.00	0.00			
B11881 Greenwood, James	HAZ17	IR Incident		FF1		4.69	0.00	0.00			
B1824 Riedinger, Daryl	HAZ17	IR Incident		CAPT		4.69	0.00	0.00			
B3296 Turley, Fred C	HAZ17	IR Incident		SFF		4.69	0.00	0.00			
B7518 Mitchell, Roy	HAZ17	IR Incident		CAPT		4.69	0.00	0.00			
B7627 Walters, Jeff	HAZ17	IR Incident		SFF		4.69	0.00	0.00			
Total Participants: 6						Total Personnel Hours: 28.14					

An 'X' next to the unit denotes driver.
fire

EPA CID Case No. 1003-0101: 0280
01100 09/27/2015 15-8016530

**United States Environmental Protection Agency
Criminal Investigation Division
Investigative Activity Report**

Case Number:

1003-0101

Case Title:

Prime, Inc

Subject of Report:

Interview of Cpt. Riedinger, RRT4

Reporting Office:

Boise, ID, Resident Office

Activity Date:

February 22, 2016

Reporting Official and Date:

Darin J. Mugleston

Resident Agent in Charge

23-FEB-2016, Signed by Darin J. Mugleston

Approving Official and Date:

Scot R. Adair

Acting Special Agent in Charge

26-FEB-2016, Approved by Edward W. Owens

Assistant Special Agent in Charge

SYNOPSIS

On February 22, 2016, Captain (Cpt.) Daryl Riedinger, Regional Response Team Region 4 (RRT4), Boise Fire Department (BFD), Boise, ID, was interviewed regarding captioned investigation.

DETAILS

On February 22, 2016, at approximately 9:15 a.m., Cpt. Daryl Riedinger, RRT4, BFD, Boise, ID, (208) 384-4017, was phoned by Reporting Agent. Riedinger was interviewed regarding his knowledge of the September 27, 2015, paint-related waste incident from Prime, Inc.'s truck and trailer fire on Interstate 84 at mile post 115, near Glens Ferry, ID. Cpt. Riedinger said the following information:

For background, the State of Idaho has four regional response teams (RRT). If there is an incident within the state, the local fire department will respond to the incident. If the local fire department can't handle the incident, the local fire department will call the regional RRT for assistance. When the local fire department requests RRT assistance, this is referred to as a level 2. If the responding regional RRT arrives at the scene and needs additional assistance, the RRT will elevate the incident to a level 3, which engages multiple regional RRTs.

Cpt. Reidinger advised the main objective of the RRT is mitigating any hazardous contamination by controlling and confining contamination from getting into waterways and from leaving the site. For example, if there was a site with leaking drums, the RRT would use efforts to upright and patch any of the drums from leaking. If there is any liquid on the ground, RRT would place berms or dig trenches to prevent flow from the site.

Regarding the September 27, 2015, incident, the local fire department, King Hill Rural Fire (KHRF), responded to the trailer fire. Cpt. Riedinger recalled the trailer consisted of more than 70 55-gallon drums of paint.

According to Cpt. Riedinger, the local fire chief, Fire Chief Derek Janousek, KHRF, handled the situation correctly. When the KHRF arrived on the scene, the trailer was on fire and the trailer was labeled with hazardous material transportation placards; therefore, KHRF called for RRT4 for assistance.

After RRT4 received the call for assistance, it took RRT4 about an hour to arrive at the scene. Upon arrival at the scene, Cpt. Riedinger claimed there were "no active leaks." The tops of the drums had "burned off," leaving the tops of the drums open, but there was no active spill occurring.

Agent's Note: Cpt. Riedinger's Incident Report was previously obtained from the Boise Fire Department, which was documented in an Investigative Activity Report, titled "Incident Report from Boise

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EPA CID Case No. 1003-0101: 0283

**United States Environmental Protection Agency
Criminal Investigation Division
Investigative Activity Report**

Case Number:
1003-0101

Fire Department,” dated 2/9/16.

Since there was nothing for RRT4 to mitigate at the scene, the site turned into a cleanup versus an emergency phase.

Cpt. Riedinger stated the RRT is not tasked to do any hazardous material cleanup. The cleanup is the responsibility of the spiller.

Cpt. Riedinger recalled RRT4 had a “4 gas meter” at the above incident to check for any volatile organic compounds in the area, which could cause imminent threat to human health. This allows RRT4 to “place an invisible fence around an incident,” until the RRT can “dial” the incident down to safe working conditions. Cpt. Riedinger could not recall any specific meter readings.

When asked if he had any conversations with the trucking company, Prime, Inc., Cpt. Riedinger could not recall having any conversations with the truck driver or anyone from Prime. Cpt. Riedinger recalled Sergeant Colin Bonner, Commercial Vehicle Safety Hazardous Materials Division, Idaho State Police (ISP), Meridian, Idaho, was the one speaking to the truck driver about obtaining a cleanup company.

Cpt. Riedinger stated he never told anyone that the material was non-hazardous.

Cpt. Riedinger stated RRT4 did not perform any kind of hazardous determination at the scene.

Cpt. Riedinger claimed RRT4 left the scene before the cleanup company arrived.

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EPA CID Case No. 1003-0101: 0284

**United States Environmental Protection Agency
Criminal Investigation Division
Investigative Activity Report**

Case Number:

1003-0101

Case Title:

Prime, Inc

Subject of Report:

PPG Internal Emails

Reporting Office:

Boise, ID, Resident Office

Activity Date:

March 7, 2016

Reporting Official and Date:

Darin J. Mugleston

Resident Agent in Charge

08-MAR-2016, Signed by *Darin J. Mugleston*

Approving Official and Date:

Edward W. Owens

Assistant Special Agent in Charge

08-MAR-2016, Approved by *Edward W. Owens*

Assistant Special Agent in Charge

SYNOPSIS

On March 7, 2016, Attorney Steven Faeth, Corporate Counsel, Law Department, PPG Industries, Inc. (PPG), Pittsburg, PA, provided internal e-mails from the PPG associates who were involved with the September 27, 2015, semi-trailer fire operated by Prime, Inc. (Prime).

DETAILS

On March 7, 2016, Attorney Steven Faeth, Corporate Counsel, Law Department, PPG Industries, Inc. (PPG), One PPG Place, Pittsburg, PA, provided, via Fedex, Reporting Agent with internal e-mails from the PPG associates who were involved with the September 27, 2015, semi-trailer fire operated by PPG's contract carrier, Prime, on Interstate 84, at mile post 115, near Glens Ferry, ID. A portable document file containing the emails is attached.

ATTACHMENT

PPG Internal Emails, dated 9_27_15 to 3_2_16

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EPA CID Case No. 1003-0101: 0299



PPG Industries, Inc.
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Corporate Counsel
Law Department
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March 2, 2016

SENT VIA FEDERAL EXPRESS
TWO DAY SERVICE

Darin J. Mugleston
Resident Agent in Charge
U.S. Environmental Protection Agency
Criminal Investigation Division
950 W. Bannock Street, Suite 900
Boise, ID 83702

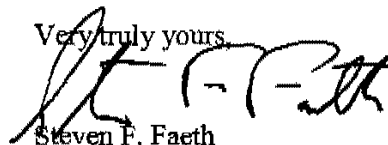
Re: Prime Truck fire - September 2015

Dear Special Agent Mugleston:

I have collected all of the internal e-mails from the PPG associates who were involved with the truck fire involving a PPG contract carrier, Prime Inc. For the sake of completeness, I have included all of the e-mails, even though there appears to be a fair amount of duplication. I have also included document control numbers on each page so that I can keep track of what I have provided to you and we can easily identify documents in case you have any follow up questions.

If you have any questions, please let me know.

Very truly yours,



Steven F. Faeth

SFF/kt
Enclosures

EPA CID Case No. 1003-0101: 0300

**United States Environmental Protection Agency
Criminal Investigation Division
Investigative Activity Report**

Case Number:

1003-0101

Case Title:

Prime, Inc

Subject of Report:

Recorded Interview of Sandy Derrick, B&W Truck Driver

Reporting Office:

Boise, ID, Resident Office

Activity Date:

March 30, 2016

Reporting Official and Date:

Darin J. Mugleston

Acting Assistant Special Agent in Charge

11-APR-2016, Signed by Darin J. Mugleston

Approving Official and Date:

Edward W. Owens

Assistant Special Agent in Charge

14-APR-2016, Approved by Edward W. Owens

Assistant Special Agent in Charge

SYNOPSIS

On March 30, 2016, Sandy Derrick, Tow Truck Driver, B&W Wrecking Services (B&W), stated he does not have a hazmat endorsement on his Commercial Driver's License. Derrick was told by Prime, Inc. (Prime) the trailer caught on fire was a hazmat load with paint on it. Derrick believed he had a hazmat exemption to clean up the trailer fire, because it was an emergency. Derrick believed the site was non-hazardous, but he does not know who told him it was non-hazardous. Derrick said that after B&W cleaned up the trailer fire, B&W transported the burnt trailer with a portion of the drums on it to the B&W yard in Mountain Home, ID. B&W hired Corder Trucking to transport the remaining drums, which were disposed of at the Idaho Waste Systems landfill. According to Derrick, Prime hired a company to transport the trailer with drums from B&W's yard to Utah, but Derrick does not know what happened to the drums after leaving B&W.

DETAILS

On March 30, 2016, at approximately 2:00 p.m., Sandy Derrick, Tow Truck Driver, B&W, was interviewed by Special Agent (SA) Darin Mugleston, EPA-CID, and SA [REDACTED] U.S. Department of Transportation – Office of Inspector General (DOT-OIG). Present during the interview was Detective Dan "Zach" Parlin, Elmore County Sheriff's Office (ECSO). Derrick was interviewed at the ECSO main office, located at 2255 E 8th North, Mountain Home, ID. Derrick was interviewed regarding his knowledge of the cleanup of the September 27, 2015, paint-related waste incident from a semi-trailer fire operated by Prime, on Interstate 84, at mile post 115, near Glens Ferry, ID.

Prior to the interview, Derrick was informed the interview was going to be audio recorded. Derrick also recorded the interview using his personal cell phone.

An Audio recording of Derrick's interview was downloaded to a compact disk by SA Mugleston. The compact disk is stored as evidence at the Boise Resident Office. A copy of the Chain of Custody is attached as a place holder.

A general summary of the audio recorded interview with Derrick has been included below to provide an investigative reference to the topics discussed during the interview. This summary is not intended to be in chronological order or a verbatim account and does not memorialize all statements made during the interview. The recording captures the actual words spoken.

Prior to the interview, SA Mugleston and SA [REDACTED] displayed their credentials to Derrick. Derrick was informed the interview was a non-custodial interview.

In the beginning of the interview, SA Mugleston explained the purpose of the interview. (Recorder Time

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Investigative Activity Report**

Case Number:

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Stamped (RTS): approx. 00:02:00 minutes)

Derrick stated B&W is a towing company with its main office located in Boise, ID. B&W also rents a yard at 2210 Sunset Strip, Mountain Home, ID. Derrick drives a tow truck for B&W and his title is "driver." Derrick was previously employed with B&W before leaving to be a long-haul truck driver. However, approximately five years ago, he was approached by B&W to open an office in Mountain Home. Derrick then opened the facility in Mountain Home, ID. Derrick is the only B&W driver in Mountain Home. (RTS: approx. 00:05:00 minutes)

Further, Derrick said Dwaine Lee owns B&W. Dwaine Lee's brother, Rick Lee, is the manager for the towing side of B&W. B&W also has a crane and rigging business, which is separate from the towing service. The crane and rigging business moves large machinery for machine shop businesses. As a tow truck driver, Derrick reports to Dwaine Lee and Rick Lee. (RTS: approx. 00:07:30 minutes)

Derrick said he has had a "CDL" (Commercial Driver's License) license since 1999. Derrick said there are more rules and restrictions on a CDL license than a regular driver's license. Derrick said he does not have any special endorsements, such as "hazmat," doubles, and triples (doubles and triples are the number of trailers being pulled), for his CDL license. (RTS: approx. 00:10:00 minutes)

Derrick was questioned about the September 27, 2015, semi-trailer fire. Derrick said he got called in the middle of the night from Prime's "break down department" regarding the questioned fire incident. Derrick claimed B&W is on a call list for Prime, whenever Prime needs towing service in the Idaho area. Derrick said to get on Prime's call list you have to do the "footwork" to make the connections with Prime. Derrick estimated that Prime might call B&W once or twice a month for service. (RTS: approx. 00:14:10 minutes)

Derrick added that he used to be a cross country driver for Prime in 1999 for approximately two years. (RTS: approx. 00:18:10 minutes)

In case of a truck breakdown, Prime drivers can contact Prime's breakdown department by either typing a message on the onboard computer system, "QualComm System" or the drivers can make a phone call into Prime. (RTS: approx. 00:018:43 minutes)

When Derrick received Prime's phone call regarding the trailer fire, Derrick claimed Prime said there was a trailer caught on fire. Further, Prime said the trailer was a "Hazmat and it had paint on it." (RTS: approx. 00:20:50 minutes)

After receiving Prime's phone call, Derrick called Rick Lee and told him about the situation. (RTS: approx. 00:22:30 minutes)

When asked what kind of B&W equipment responded to the fire incident, Derrick said he had his heavy duty wrecker and he had B&W bring a truck and flatbed trailer, and a crane to the site. According to Derrick, the crane has its own power and can be driven on the road. In addition, Derrick "outsourced" a side dump truck from Corder Trucking, Mountain Home, ID. Derrick also said B&W brought a backhoe to the site. (RTS: approx. 00:23:00 minutes)

Derrick said the B&W individuals at the site were Rick Lee, Darren Buys, and himself. Also, a driver from Corder Trucker was at the site, but Derrick couldn't recall his name. Derrick claimed the Corder driver had a CDL license. (RTS: approx. 00:25:30 minutes)

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Derrick was shown photos of the fire incident (bates stamped 000105 thru 000109). Derrick explained they used the crane, with a strap, to pick up the “barrels” from the back of the burnt trailer all the way towards the midsection of the trailer. The drums from this section were then placed into the side dump truck. Derrick explained the side dump truck is an all enclosed container, unlike a regular dump truck with a lift gate where things can roll out the back. (RTS: approx. 00:27:00 minutes)

Derrick explained that after the drums from the end of the trailer to the midsection were placed into the side dump truck, they used the crane to pick up the burnt trailer with the remaining drums still on the trailer. Once the burnt trailer was picked up, they slid B&W’s trailer underneath the burnt trailer and then set the burnt trailer on top of B&W’s trailer. Derrick claimed he did not know the number of drums placed in the side dump truck or the number of drums remaining on the burnt trailer. Derrick believed the burnt trailer contained more drums than the side dump truck. (RTS: approx. 00:30:00 minutes)

Derrick believed it took about six to ten hours to clean up the site. (RTS: approx. 00:33:20 minutes)

After the site was cleaned up, B&W took the burnt trailer with the drums to B&W’s yard in Mountain Home, ID. The side dump truck with its drums went to Corder Trucking. (RTS: approx. 00:33:55 minutes)

Derrick said the burnt trailer and drums sat at the B&W yard for approximately a week, until Prime called him for the purpose of transporting the trailer and drums to Utah. According to Derrick, Prime hired a company out of Salt Lake City, Utah, to haul the trailer and drums to Utah. Derrick had no idea what the company did with the trailer or drums after leaving B&W. (RTS: approx. 00:35:40 minutes)

When asked about the paint waste in Corder Trucking’s side dump truck, Derrick said he got a call from Prime the next day after the incident, Monday, September 28, 2015, authorizing the disposal of the waste. Derrick could not recall the name of the Prime employee who called him. Derrick said he then called Idaho Waste Systems (IWS) to see if they could take the paint waste, but he learned that Rick Lee was also talking to IWS about the paint disposal, so Derrick let Rick Lee handle the disposal details with IWS. Derrick claimed Rick Lee told IWS the waste was paint and IWS said it could take the waste. Further, Derrick said when he talked with IWS, he also told IWS it was paint waste. (RTS: approx. 00:38:10 minutes)

After learning IWS can take the paint waste, Derrick called Tim Corder, owner of Corder Trucking. Derrick told Corder to dispose the waste at IWS. After the waste disposal, Derrick was provided an IWS Invoice for the disposal, which he then turned into B&W’s main office, Boise, ID. (RTS: approx. 00:41:15 minutes)

Derrick was told by the investigating agents to tell the truth and that lying to a federal agent is a crime. (RTS: approx. 00:44:00 minutes)

When asked if Derrick knew if the paint material was hazardous, Derrick said Prime told him that it was a “hazmat load” when he arrived at the incident. Prime also told Derrick it was paint. (RTS: approx. 00:47:20 minutes)

To Derrick’s knowledge, B&W has never done an environmental cleanup before the questioned incident. Derrick stated he personally has never done an environmental cleanup before the questioned incident. (RTS: approx. 00:47:40 minutes)

Derrick said B&W does accident cleanups all the time, and “this was a regular cleanup” to him. (RTS:

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Case Number:

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approx. 00:48:10 minutes)

In reference to the questioned incident, Derrick “believed” he was also told that the incident was “no longer a hazmat danger anymore,” because “everything got so hot and burned up.” Derrick does not recall who told him the site was no longer a hazmat incident. (RTS: approx. 00:48:30 minutes)

Derrick admitted he was told by the Idaho State Police (ISP) officer at the scene that he (Derrick) needed a hazmat endorsement. However, Derrick claimed he didn’t need a hazmat endorsement because it is an emergency situation. Derrick has always been told you don’t need a hazmat endorsement when initially removing material from a scene. (RTS: approx. 00:49:25 minutes)

Derrick claimed he told the ISP officer that he didn’t need a hazmat endorsement when removing material from an emergency incident. Derrick claimed the ISP said he will check on that, but the ISP officer has never gotten back to Derrick, according to Derrick. (RTS: approx. 00:50:06 minutes)

When further questioned about hazmat endorsements, placards, and manifests, Derrick reiterated that he has always been told that from an initial breakdown or an accident there is an exemption allowing hazmat material to be initially removed from the road without having a hazmat endorsement or placards. (RTS: approx. 00:50:30 minutes)

When further asked about placards and manifests for the transportation of the paint waste from B&W to Utah, Derrick reiterated he was not present at the B&W yard when the company, who was hired by Prime, came and removed the trailer with drums from the yard to Utah. Therefore, Derrick did not see if the company placarded the material. Derrick also did not tell Corder Trucker to placard or manifest the waste material in the side dump truck when it was driven to IWS for disposal. (RTS: approx. 00:51:10 minutes)

Derrick was shown PPG’s Bill of Lading (bate stamped: 000038) for the paint material. Derrick said he was familiar with the UN numbering system and looking in the “book” [Department of Transportation’s Emergency Response Guidebook] to identify the material. Derrick claimed he did not look up the UN numbers to identify the material on the above Bill of Landing. (RTS: approx. 00:52:50 minutes)

Derrick claimed he told Rick Lee, B&W’s manager, that paint material was a hazmat load. In response, Rick Lee said, “Well, clean it up, just like we do everything else.” (RTS: approx. 00:53:40 minutes)

Derrick claimed he did not have any discussions with anyone at Prime regarding how to clean up the material. Prime never told Derrick to make sure the material was placard. (RTS: approx. 00:54:06 minutes)

Derrick said he made sure he had a copy of the Bill of Lading by taking it from the Prime truck driver. (RTS: approx. 00:57:15 minutes)

When questioned further about what the ISP officer told Derrick concerning have hazmat endorsements, Derrick reiterated he believed he was exempt from transporting hazardous material from point A to point B, but when you drop and unhook the trailer with material that is when you are no longer exempt. (RTS: from approx. 00:58:35 minutes to 01:02:57)

Derrick was unable to provide the citation for the hazmat exemption. (RTS: approx. 01:03:05 minutes)

Derrick did not know why the paint material was hazardous. Derrick said it was flammable until it was all

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Case Number:

1003-0101

burned up. (RTS: approx. 01:03:44 minutes)

When asked about the paint residue left at the scene, Derrick claimed they were going to leave the wet paint on the ground at the scene to dry before cleaning it up. (RTS: approx. 00:59:45 and 01:04:13 minutes)

Derrick recalled telling Idaho Department of Environmental Quality (IDEQ) the material at the site was non-hazardous. Derrick claimed it was non-hazardous because the "flammable part" of the paint was "burnt." Derrick said no one told him that it was non-hazardous. Derrick just assumed it was non-hazardous. Derrick said he did not know if the paint still had potential to be harmful. (RTS: approx. 01:06:15 minutes)

Derrick reiterated Rick Lee had made the arrangements with IWS to receive the paint waste. Derrick said he called IWS, but learned Rick Lee had already been dealing with them, so Derrick just let Rick Lee handle making the arrangements. (RTS: approx. 01:08:10 minutes)

Derrick was shown IWS's invoice for the paint waste disposal (bate stamped: 000039). The invoice showed 35,880 lbs of paint waste was disposed at IWS. (Note: the Bill of Lading listed total weight of paint material being transported as 37,734 lbs) Derrick said the weight amount of disposed paint material listed on the disposal invoice is "wrong." Derrick "guaranteed" there were drums on the mid-section of the trailer that went to Salt Lake City, UT. (RTS: approx. 01:11:30 minutes)

When questioned further about the paint going to Utah, Derrick could not recall the name of the company that came and transported the waste. Derrick claimed Prime called him to tell him of the company coming to pick up the waste. Derrick met the driver and helped load the trailer, but then Derrick left the yard to respond to a call before the company hauled off the trailer. Derrick believed the material was transported off site within a week of the incident. (RTS: approx. 01:13:40 minutes)

During the summation of the interview, Derrick said Darren Buys, B&W driver, drove the truck and trailer containing the midsection of drums from the site of the incident to B&W's yard in Mountain Home, ID. (RTS: approx. 01:17:20 minutes)

During the summation of the interview, Derrick claimed Rick Lee told Derrick there is an exemption for B&W to "haul" the waste to a staging area. (RTS: approx. 01:18:47 minutes)

Derrick claimed Prime originally called him to see if B&W could take the trailer containing the paint waste to Utah. Derrick said he quoted Prime a high number for the transportation, because B&W didn't want to take the waste due to B&W's work overload. (RTS: approx. 01:21:10 minutes)

When asked about the paint residue cleanup after the incident, Derrick stated after he got a call from IDEQ regarding paint residue still on the ground, Derrick gave IDEQ the name of the person Derrick dealt with at Prime. Derrick then called Prime and told Prime the residue needed cleaned up. Derrick also provided Prime with Corder Trucking's number saying Corder Trucking can do the cleanup. (RTS: approx. 01:24:05 minutes)

When asked if he has ever relied upon the hazmat exemption rule before the questioned incident, Derrick said, "just towing." (RTS: approx. 01:31:17 minutes)

When asked if he had done any other similar cleanups like the questioned incident, Derrick stated no. Derrick further said maybe he misunderstood the ISP officer regarding the hazmat endorsements. Derrick

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said there was definitely miscommunication or misunderstanding. (RTS: approx. 01:31:48 minutes)

When asked if Derrick had further discussions with Prime about the material being hazardous or non-hazardous, Derrick said, "No." Derrick said he was just told by Prime the material was a hazardous load and it was paint. Derrick claimed he never told Prime the material was non-hazardous based upon his (Derrick's) assumption. (RTS: approx. 01:32:39 minutes)

When asked about seeing any markings or labels on the drums, Derrick said he did not see any markings on the drums because the drums were burnt. (RTS: approx. 01:34:00 minutes)

Derrick said he believed the hazmat exemption is for the "first initial move" for wrecked or broken down vehicles and hazmat incidents. (RTS: approx. 01:34:20 minutes)

At the conclusion of this interview, Derrick stated everything he said was a true and accurate statement.

This interview was concluded at approximately 3:31 p.m.

ATTACHMENT

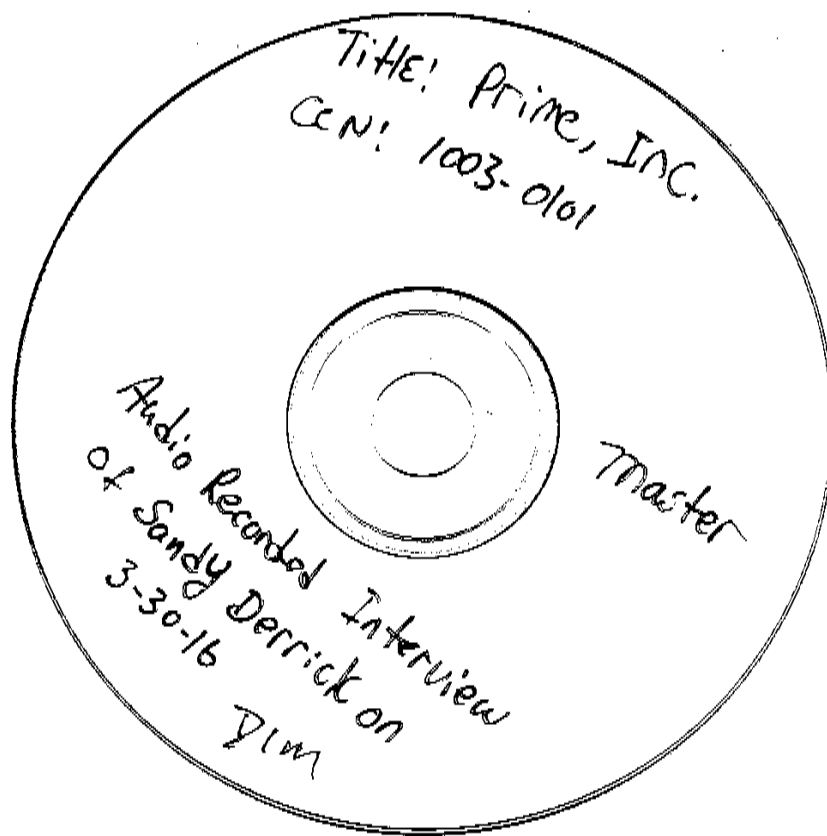
Chain of Custody_AudioRecorded Interview of Derrick_dated 3_30_16

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**United States Environmental Protection Agency
Criminal Investigation Division
Investigative Activity Report**

Case Number:

1003-0101

Case Title:

Prime, Inc

Subject of Report:

Recorded Interview of Tim Corder, CWE

Reporting Office:

Boise, ID, Resident Office

Activity Date:

April 13, 2016

Reporting Official and Date:

Darin J. Mugleston

Resident Agent in Charge

27-APR-2016, Signed by Darin J. Mugleston

Approving Official and Date:

Edward W. Owens

Assistant Special Agent in Charge

28-APR-2016, Approved by Edward W. Owens

Assistant Special Agent in Charge

SYNOPSIS

On April 13, 2016, Tim Corder, Jr. Part-Owner, Corder White Excavating (CWE), was interviewed by EPA-CID and U.S. Department of Transportation – Office of Inspector General (DOT-OIG). Corder said he disposed of the waste material from the burned trailer at Idaho Waste Systems (IWS). Corder was never told the material was hazardous when he disposed of the material. Corder said he conducted the cleanup of the trailer fire residue following the fire incident. After the fire residue material was deemed hazardous by H2O Environmental (H2O), Corder transported the waste to US Ecology. Corder said he never placard his truck for the waste transportation to IWS or to US Ecology.

DETAILS

On April 13, 2016, at approximately 3:00 p.m., Tim Corder, Jr. Part-Owner, CWE, was interviewed by Special Agent (SA) Darin Mugleston, EPA-CID, and SA [REDACTED] DOT-OIG. Corder was interviewed inside SA Mugleston's government vehicle at a CWE jobsite, near Greenhurst Road and Kona Avenue, Nampa, ID. Corder was interviewed regarding his knowledge of the cleanup and disposal of the September 27, 2015, paint-related waste incident from a semi-trailer fire operated by Prime, on Interstate 84, at mile post 115, near Glenns Ferry, ID.

Prior to the interview, Corder was informed the interview was going to be audio recorded. Further, SA Mugleston and SA [REDACTED] displayed their credentials to Corder.

An Audio recording of Corder's interview was downloaded to a compact disk by SA Mugleston. The compact disk is stored as evidence at the Boise Resident Office. A copy of the Chain of Custody is attached as a place holder.

A general summary of the audio recorded interview with Corder has been included below to provide an investigative reference to the topics discussed during the interview. This summary is not intended to be in chronological order or a verbatim account and does not memorialize all statements made during the interview. The recording captures the actual words spoken.

Corder said he is a half owner of CWE, a general contracting company. Corder Trucking is owned by Corder's father, Tim Corder senior, which is a general freight trucking company for the northwest. (Recorder Time Stamped (RTS): approx. 00:02:55 minutes)

Regarding the September 27, 2015, paint-related waste incident from a semi-trailer fire, Corder provided investigating agents with a general description of how CWE received a phone call from B&W Wrecking Services (B&W), asking CWE to deliver a side dump trailer to the questioned site so B&W could load the trailer with some burned debris from a trailer fire. The next day after the incident, Corder himself

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B&W Prime Inc - 000889

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transported the waste material for disposal to IWS. Corder claimed he did not pay for the disposal. (RTS: approx. 00:04:30 minutes)

When asked about CWE's cleanup of the trailer fire residue material in November 2015, Corder received a phone call from Scott Strader, Premium Environmental Services, (812) 853-2400, New Berg, Indiana, asking Corder to clean up the residue from the original fire incident. Corder believed PES was referred to CWE by Sandy Derrick, B&W. Corder said there were tire debris, aluminum debris, and paint residue left at the site. When Corder asked Strader where to take the cleaned up material, Strader informed Corder to take the material where B&W took the other debris, which was to IWS. (RTS: approx. 00:09:10 minutes)

Corder said that before he could dispose of the waste material from the residue cleanup, he received a phone call from "Maureen," Idaho Department of Environmental Quality (IDEQ). Maureen of IDEQ said the material from the residue cleanup could be potentially hazardous. Subsequently, Corder called and had a conversation with Strader and another PES employee about IDEQ's concerns. Later in the interview, Corder said the other PES employee could have been Tom Stone. Either Strader or the other individual (possibly Tom Stone) said once the material was burned, it was no longer hazardous. (RTS: approx. 00:14:00 minutes)

After his discussions with IDEQ and PES regarding the material from the residue cleanup, Corder received a phone call from H2O, Boise, ID. H2O was calling in order to come and profile the material in the trailer from the residue cleanup. After the residue material was sampled by H2O, the trailer with the material sat at CWE for approximately 20 days, until he got a call from H2O saying the load can be disposed at U.S Ecology, Grandview, ID. (RTS: approx. 00:16:25 minutes)

After the general description of Corder's involvement with the two cleanups, Corder was told by the investigating agents to tell the truth and that lying to a federal agent is a crime. (RTS: approx. 00:19:03 minutes)

When asked further questions about the waste from the original fire incident that was disposed at IWS on September 28, 2015, Corder said he could not recall seeing a bunch of drums in the side dump truck. He recalls seeing some "burned up," "smashed up" drums. (RTS: approx. 00:23:20 minutes) Corder was told the material was "burned up debris." Corder didn't know what the debris consisted of exactly. Corder said he recalls someone saying the material was paint, but he didn't know how much paint was in the side dump truck. (RTS: approx. 00:20:25 minutes) Later in the interview, Corder said the side dump trailer had a tarp rolled over the top, so he didn't really see anything inside the trailer. (RTS: approx. 00:29:25 minutes) Corder said he remembered seeing some "drippy" stuff on the side of the truck and on the wheels. (RTS: approx. 00:30:21 and 00:31:05 minutes) Corder said he was not worried about paint in the trailer, because he has seen IWS take paint at the dump. (RTS: approx. 00:30:30 minutes) Further in the interview, Corder said he may have seen a drum or two come out of the trailer.

Corder said when he arrived at the IWS, he told "Debbie" at IWS he had a load of material to dump for B&W. Corder took the material to the top of the hill at the dump. Corder then rolled the tarp back and dumped the load. After the load is dumped, an IWS machine (bull dozer) pushed the material away. (RTS: approx. 00:30:05 and 00:33:52 minutes) Corder claimed he never got out of the trailer when he dumped the load. (RTS: approx. 01:10:38 minutes)

Corder said he has nothing to gain by hiding the disposal of the material. Corder said he only made 200 to 300 dollars for the transportation of the material to the landfill. (RTS: approx. 00:32:38 minutes)

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B&W PHEC Inc. - 000899

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Case Number:

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Corder said he has a Class A Commercial Driver's License (CDL). Corder does not have a hazmat endorsement for his CDL. Corder stated he can't transport hazardous materials. (RTS: approx. 00:25:30 and 00:35:00 minutes)

Corder said he has his "HAZWOPER" certificate and he receives his 8 hour refresher from Boise State University each year. (RTS: approx. 00:25:40 minutes)

Corder said he didn't know the material in his side dump truck from the fire cleanup was hazardous material. Corder was told by Sandy Derrick, B&W, that there was a burnt truck and to take it to IWS. Corder claimed if B&W said to take to U.S. Ecology, Corder would have asked more questions, because U.S. Ecology is a hazardous waste site. Corder doesn't believe Sandy Derrick knew the material was hazardous. According to Corder, if B&W knew it was hazardous, it would have called Steve Fuller, a hazardous waste transporter out of Mayfield, ID, to transport the waste for disposal. (RTS: approx. 00:38:20 minutes)

Corder knows paint is hazardous at some level or quantity. (RTS: approx. 00:47:00 minutes)

When asked further questions about the residue cleanup in November 2015, Corder said he never worked with PES before this incident. Corder claimed PES never told him the residue contained hazardous material. Corder claimed the site didn't have "color" on the ground. Corder said the ground was not covered in "candy apple red" or "yellow." (RTS: approx. 00:52:50 minutes)

Corder said that after Maureen [Vincenty] of IDEQ called Corder about the waste material being potentially hazardous, Corder called PES. Corder can't remember if he talked with Tom Stone or Scott Strader. According to PES, the material was a water based paint and it wasn't hazardous. (RTS: approx. 00:54:55 minutes)

After H2O took samples of the cleaned up residue material, Corder claimed he got a call from H2O telling Corder to take the material to US Ecology, located in Grandview, ID. (RTS: approx. 00:56:00 minutes)

When Corder was questioned why he took hazardous waste to US Ecology without having his hazmat endorsement, Corder said no one told him it was hazardous or he needed placards. Corder said he specifically asked H2O if he (Corder) needs "anything special," because he told H2O he does not have a hazmat endorsement. Corder could not recall who he talked with at H2O. Corder claimed he told the individual at H2O they need to lease Corder's truck and transport the material themselves. In response, Corder claimed the individual at H2O said "don't worry about it, it's good." Corder just thought it was going to US Ecology because of the fire at IWS, which was closed. (RTS: approx. 00:56:58 and 01:00:46 minutes)

Corder was shown the hazardous waste manifest for the waste to US Ecology (Bate stamped 110). Corder claimed only a portion of the manifest was filled out when H2O gave it to him, but Corder doesn't remember which portion wasn't filled out. After Corder took the waste to US Ecology, Corder claimed he sat at the "stab" department for 2 ½ hours until US Ecology fixed the manifest. Corder did not know what the problems were with the manifest. (RTS: approx. 00:58:55 minutes)

Corder said he did not have his truck placard for either the first load of waste material from the burned trailer he took to the IWS landfill or for the other load of material from the residue cleanup he eventually took to US Ecology. Corder claimed no one ever told him to placard the trailer. (RTS: approx. 01:00:18 minutes)

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B&W PHEC Inc. - 000893

**United States Environmental Protection Agency
Criminal Investigation Division
Investigative Activity Report**

Case Number:

1003-0101

and 01:15:35 minutes)

When asked who should have known the material was hazardous, Corder said the people who showed up at the site and saw the Bill of Lading. (RTS: approx. 01:01:40 minutes)

Corder claimed CWE has drivers with hazmat endorsements. (RTS: approx. 01:03:30 minutes)

Corder stated he never questioned what kind of waste he was hauling to the IWS on September 28, 2015. Corder was told it was a burned trailer. Corder never questioned the material because he felt there was no reason to question the material. (RTS: approx. 01:04:10 minutes)

To Corder's knowledge, IWS has received diesel and petroleum contaminated soils, paint products, and asbestos material for the last ten years. (RTS: approx. 01:08:00 minutes)

Corder reiterated he is HAZWOPER certified, knowing the rules and regulations. (RTS: approx. 01:16:15 minutes)

When asked based upon his experience what he would have done if he received the call from Prime to clean up the fire incident, Corder said he would have called Jeff Boulick (phonetic), Specialty Environmental Services, Boise, ID. Corder and SES would have worked together to clean up the site, because they have worked together in the past. (RTS: approx. 01:18:10 minutes)

At the conclusion of this interview, Corder stated everything he said was a true and accurate statement.

This interview was concluded at approximately 4:30 p.m.

ATTACHMENT

Chain of Custody_Audio Recording of Tim Corder_dated 4_13_16

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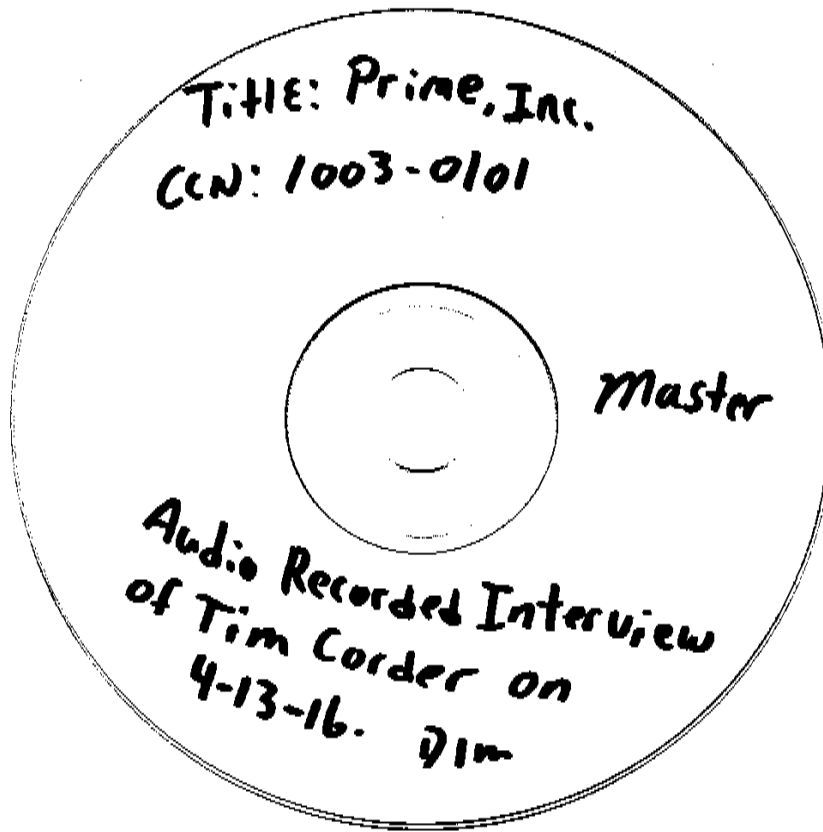
B&VP
Meclec-000892



United States Environmental Protection Agency
Office of Criminal Enforcement, Forensics & Training
CHAIN OF CUSTODY RECORD

Case Number 1003-0101		Case Name Prime, Inc		1. Collection Location/Source Audio Recorded Interview	
2. Item/Sample Number	Item/Sample Date Time	3. Collected By	4. Item/Sample Location	5. Description	
	4/13/16	SA Mogleston	Audio Recorded Interview	One (1) Compact Disk titled "Audio Recorded Interview of Tim Corder on 4-13-16." Initialed "DJM"	
<i>Nothing Follows</i>					
<i>DJM</i>					

B:\VP\Hme\dlac_000899



**United States Environmental Protection Agency
Criminal Investigation Division
Investigative Activity Report**

Case Number:

1003-0101

Case Title:

Prime, Inc

Subject of Report:

Invoices from CWE

Reporting Office:

Boise, ID, Resident Office

Activity Date:

April 27, 2016

Reporting Official and Date:

Darin J. Mugleston

Resident Agent in Charge

28-APR-2016, Signed by Darin J. Mugleston

Approving Official and Date:

Edward W. Owens

Assistant Special Agent in Charge

28-APR-2016, Approved by Edward W. Owens

Assistant Special Agent in Charge

SYNOPSIS

On April 13 and 27, 2016, Tim Corder, Jr. Part-Owner, Corder White Excavating (CWE), provided EPA-CID with Invoices relating to the September 27, 2015, paint-related waste incident from a semi-trailer fire operated by Prime, near Glens Ferry, ID.

DETAILS

On April 13 and 27, 2016, Tim Corder, Jr. Part-Owner, CWE, provided, via email, CWE Invoices to Reporting Agent. The Invoices relate to the CWE trailer rental and the residue cleanup for the September 27, 2015, paint-related waste incident from a semi-trailer fire operated by Prime, on Interstate 84, at mile post 115, near Glens Ferry, ID.

Invoice #1394 relates to the trailer rental to B&W Wrecking Services (B&W), which the trailer was rented by B&W in the initial fire cleanup and waste disposal. CWE transported the paint waste material to Idaho Waste Systems, Mountain Home, ID. The Invoice amount was \$650.00. Invoice #1394 is attached.

In an email dated April 27, 2016, Tim Corder said the following relating to Invoice #1394:

“Darin,

Sorry for the delay, I seem to have to many irons in the fire, here is the invoice for trailer rent and transportation. Since I was out of town on the 27th the call went through dispatch and was consequently invoiced by Corder llc. CWE llc then invoiced Corder llc. Typically all trucking ordered through dispatch is invoiced through Corder llc then passed on to CWE llc when it pertains to excavation. I am sorry for any confusion, I was not aware of this until now.

Thanks, Tim”

Invoice #1413 relates to the cleanup and waste storage for CWE’s residue cleanup from the above paint-related waste incident. The waste material from the residue cleanup was transported by CWE to US Ecology, Grandview, ID. Invoice amount to Premium Environmental Services was \$17,750.00. Invoice #1413 is attached.

ATTACHMENT

CWE Invoice 1394, dated 10 3 15

CWE Invoice 1413, dated 01_06_16

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EPA CID Case No. 1003-0101: 0989

Invoice

CWE, LLC

357 SE Corder Dr.
Mountain Home, ID 83647

Phone # 208-587-7559
Tax ID 27-2574013

Date	Invoice #
10/3/15	1394

PAID
10/12/15

Bill To

Corder, LLC
357 SE Corder Dr.
Mountain Home, ID 83647

		Terms	Due Date
		Net 20	10/23/15
Quantity	Description	Rate	Amount
	Trailer rental--highway cleanup for B & W Wrecker	650.00	650.00
Thank you for your business.		Total	\$650.00

Invoice

CWE, LLC

357 SE Corder Dr.
Mountain Home, ID 83647

Phone # 208-587-7559
Tax ID 27-2574013

Date	Invoice #
1/6/16	1413

Bill To

Premium Environmental Services
5032 S. Plaza Dr.
P. O. Box 370
Newburgh, IN 47629

		Terms	Due Date
		Net 20	1/26/16
Quantity	Description	Rate	Amount
29	Clean up, per original bid less disposal fee 11/16 - 12/29/15 (29 days) excluding Christmas eve and Christmas day. Waste held on truck pending analysis and disposal at the direction of Maireen Vicenty with Idaho DEQ	3,500.00 -250.00 500.00	3,500.00 -250.00 14,500.00
Thank you for your business.		Total	\$17,750.00

**United States Environmental Protection Agency
Criminal Investigation Division
Investigative Activity Report**

Case Number:

1003-0101

Case Title:

Prime, Inc

Subject of Report:

Interview-Documents of Wickenden and Simmons, H2O

Reporting Office:

Boise, ID, Resident Office

Activity Date:

May 4, 2016

Reporting Official and Date:

Darin J. Mugleston

Resident Agent in Charge

06-MAY-2016, Signed by Darin J. Mugleston

Approving Official and Date:

Edward W. Owens

Assistant Special Agent in Charge

12-MAY-2016, Approved by Edward W. Owens

Assistant Special Agent in Charge

SYNOPSIS

On May 4, 2016, Joe Wickenden, Manager, Boise Base, and Craig Simmons, Operations Director, Boise Base, H2O Environmental (H2O), Boise, ID, were interviewed. Simmons took a sample of excavated soil material of the paint-related waste incident. The sample results had 18.5 mg/l of chromium, a hazardous waste. Simmons was never told by Tim Corder, owner of Corder White Excavating (CWE), that Corder didn't have a hazardous materials (hazmat) endorsement to transport hazardous materials.

DETAILS

On May 4, 2016, at approximately 10:30 p.m., Joe Wickenden, Manager, Boise Base, and Craig Simmons, Operations Director, Boise Base, H2O, 6679 S. Supply Way, Boise, ID, were interviewed by Special Agent (SA) Darin Mugleston, EPA-CID, and SA [REDACTED] EPA-CID. The interview was conducted at H2O's Boise Office. The purpose of the interview was to determine their involvement with the September 27, 2015, paint-related waste incident from a semi-trailer fire operated by Prime, Inc. (Prime), on Interstate 84, at mile post 115, near Glens Ferry (also near Hammett), ID.

Agent's Note: On May 3, 2016, investigating agents met with Simmons at H2O, but learned Wickenden was not at work at the time. After a short conversation with Simmons and Wickenden, while Wickenden was on the phone, an interview was rescheduled for the following day, May 4, 2016.

For background, Wickenden has been employed with H2O for 12 years and has an environmental science degree. Simmons has been in the hazardous materials business since 1998 and he has been employed with H2O for 8 years.

Prior to being interviewed for their involvement with the above incident, Wickenden and Simmons were shown a Bill of Lading for the shipment of paint material in the above paint-related waste incident (bate stamped 000038). After looking at the Bill of Lading, both Wickenden and Simmons said the paint material was hazardous. Wickenden said he knows from the Bill of Lading, the paint is not just latex paint, but is hazardous. (Later in the interview, Wickenden said he was informed by Premium Environmental Services (PES) the paint material was just latex paint.) Wickenden said paint with UN numbers and flammable 3 means the material is flammable, which is hazardous. In addition, Wickenden and Simmons said 32 drums of the material had a reportable quantity for strontium chromate, a hazardous material. A reportable quantity being if there was a leak or spill, the spiller needed to call the National Response Center. Wickenden said whenever they are given a Bill of Lading at any incident, they forward the Bill of Lading to H2O's regulatory people in Las Vegas for consultation.

Wickenden said Chemtrec listed on the questioned Bill of Lading is a 24 hour response center for transporters.

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Criminal Investigation Division
Investigative Activity Report**

Case Number:
1003-0101

After providing general information regarding the Bill of Lading, Wickenden and Simmons were questioned about H2O's estimate for further excavation of soil after the paint-related waste incident was cleaned up by B&W Wrecking Services (B&W) on September 27, 2015.

In October 2015, Wickenden advised he received a phone call from Scott Strader, PES, who was hired by Prime to clean up the residue left from the initial cleanup of the September 27, 2015, paint-related fire incident. During the phone call, Wickenden was informed by Strader about the paint-related incident. Wickenden remembered Strader said a "hauler" had an accident with "latex" paint and it was only partially cleaned up. Strader wanted H2O to provide an estimate to see what it would take to clean up the remaining area of where the incident occurred.

Wickenden claimed PES is an environmental broker. Transportation companies like Prime, Swift trucking, etc., will call an environmental broker when there has been some sort of accident. An environmental broker has a call center and map, and can contact companies who can respond to any type of incident anywhere in the states.

Wickenden advised H2O has worked with PES on many occasions over the years, and to his knowledge H2O has not had any known issues with PES.

Approximately a few days before October 27, 2015, Wickenden conducted a site inspection where the questioned incident occurred, "I-84 Westbound Mile Marker 114.7, Hammett, ID." Wickenden recalled seeing where someone tried to clean up the accident in an area of approximately 40 x 40 feet. Wickenden observed within the accident area paint material still on the ground, along with diesel fuel and oil residue.

After returning from the site, Wickenden prepared an estimate for PES, dated October 27, 2015. Wickenden provided the estimate to Scott Strader, PES, via email. In the estimate, Wickenden provided a quote for the disposal of "nonhazardous, non-regulated soil" of approximately 40 yards of soil material. In the estimate, Wickenden also listed fees for analytical sampling. Wickenden said H2O always takes samples to confirm if material is hazardous or nonhazardous. The total estimate was for \$10,040.00. H2O's Services Estimate is attached.

Wickenden said after he sent the estimate in an email, Strader responded to the email saying, "I will get with the client to see how they want to proceed. Thank You, Scott Strader." Wickenden's email chain is attached.

On October 28, 2015, Wickenden received an email from Strader stating, "I just want to let you know, we went with another contractor for this excavation. I appreciate all your help. Thank you, Scott Strader." Strader's email is attached.

After receiving Strader's above email, Wickenden called Strader to see why H2O had not been selected to do the cleanup. According to Wickenden, Strader said if it is up to us (PES), we would use you (H2O); however, our client wants us to go with another company out of Mountain Home, ID, because they were cheaper. In response, Wickenden wanted to do his "due diligence" and told Strader to be careful, he (Wickenden) didn't know of a qualified company in Mountain Home who could do a proper cleanup. Wickenden stated that Strader responded by saying the company in Mountain Home gave a "cheaper rate. Significantly, cheaper rate." Wickenden again told Strader to be "careful," there is no company in Mountain Home that could do it correctly.

When questioned further about PES, Wickenden said he believed PES never saw the Bill of Lading for

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EPA CID Case No. 1003-0101: 0993

**United States Environmental Protection Agency
Criminal Investigation Division
Investigative Activity Report**

Case Number:
1003-0101

Prime's transportation of paint material, because PES would have never told Wickenden it was just latex paint, meaning nonhazardous. Also, Wickenden claimed Strader was aware Idaho Department of Environmental Quality (IDEQ) was upset over the initial fire incident not being properly cleaned up.

Wickenden opined that if PES was hired by Prime to handle the initial fire incident, PES would not have permitted a towing company (B&W) to conduct the clean up of the above incident.

Interviewing Agents then questioned Wickenden and Simmons regarding H2O's sampling of the excavated soil material from the residue cleanup by Tim Corder, CWE.

Wickenden stated that sometime on or before November 17, 2015, he received a phone call from James Sundys, PES, asking H2O to take soil samples of the material excavated from the paint residue by Tim Corder.

On November 17, 2015, Wickenden received an email from Sundys, referencing the above phone call, requesting H2O to collect the above soil sample and have TCLP analysis. In the email, Sundys wanted a fast turnaround for the sampling request. Sunday's email is attached.

Simmons stated he was then asked by Wickenden to conduct the sampling request by PES.

On November 18, 2015, Simmons went to the original site of the fire incident and excavation. Simmons claimed the site looked cleaned up with fresh backfill.

After visiting the excavation site, Simmons went to Corder's yard in Mountain Home, ID, to take a sample of the excavated soil material stored in Corder's truck. According to Simmons, Corder confirmed the soil material in the back of Corder's truck came from the questioned paint-related waste incident. Simmons also recalled Corder saying he (Corder) would not be doing this type of work in the future, because he'll be calling H2O from now on.

Simmons used H2O's sampling protocol to take one (1) composite sample of the excavated soil in the bed of Corder's truck. Simmons said he randomly took approximately four (4) or five (5) samples of soil in the bed of the truck to make one composite sample. Simmons stated he scraped off the top layer of the soil to find "clean" dirt to sample. Simmons said he purposely did not sample soil areas containing paint residue. Simmons wanted to sample soil that "looked clean." After taking the composite sample, Simmons filled out a chain of custody and sent the sample to ESC Lab Sciences, Mount Juliet, TN, for analysis. H2O's Chain of Custody is attached.

Simmons took photos of the excavated soil in the bed of Corder's truck. Copies of the photos are attached.

On November 23, 2015, ESC provided an analytical report to H2O. According to Simmons, the sample results had 18.5 mg/l of chromium, making the excavated soil hazardous material. Simmons and Wickenden said anything over 5 mg/l for chromium is hazardous. ESC's Analytical Report is attached.

On November 30, 2015, Simmons sent an email to Tom Stone, Operations Manager, PES, asking for Safety Data Sheets (SDS) for the paint material transported by Prime. In response to Simmons' email, Stone provided the SDS sheets and the Bill of Lading relating to the questioned paint material. In Stone's email reply, Stone said, "...The BP1Y100b is the one with the elevated Strontium Chromate and Barium Chromate levels...and those drums of paint comprised almost half of the entire load, so it's not surprising

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**United States Environmental Protection Agency
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Investigative Activity Report**

Case Number:
1003-0101

that the analyticals were elevated.” Simmons’ email chain with Stone are attached.

Simmons stated that at some point, he had a conversation with someone at PES during the sampling process (Simmons couldn’t remember if it was Strader or Tome Stone), wherein the PES individual told Simmons that he wished H2O would have done the cleanup originally.

On approximately December 29, 2015, after Simmons obtained the required Generator and EPA Identification numbers and completed the US Ecology’s Waste Profile Form, Simmons created a Hazardous Waste Manifest. The Waste Profile Form and Hazardous Waste Manifest are attached.

On December 29, 2015, Simmons took the Hazardous Waste Manifest to Tim Corder. Simmons said Corder knew the soil material was hazardous material, because they discussed the sample results and Simmons explained the manifest to Corder.

Simmons could not recall if he specifically asked Corder if Corder could haul hazardous material. Simmons believed he just assumed Corder could haul the hazardous material. Simmons recalled Corder saying he has been out to US Ecology before and that his sister works at US Ecology.

Simmons said Corder never stated he didn’t have a hazmat endorsement.

Simmons stated he would have never told Corder to transport hazardous material if he had known Corder hadn’t had a hazmat endorsement.

Simmons stated it would be a “flat out lie” if Corder had claimed he (Simmons) had told Corder it was okay to transport hazardous waste without a hazmat endorsement. Simmons reiterated Corder never said he didn’t have a hazmat endorsement.

Simmons said Corder did say he did not have a hazardous waste permit to haul hazardous waste. Simmons told Corder the hazardous waste permit can be purchased at the disposal facility, US Ecology. Simmons reiterated he assumed Corder has his hazmat endorsement.

Simmons claimed Corder did ask if one of H2O’s drivers could transport the waste to US Ecology. Simmons told Corder no, because of insurance and liability issues.

In response to the allegations that Simmons told Corder it’s okay to transport the waste without a hazardous materials endorsement, Simmons said there is no benefit for H2O to have Corder transport the waste for disposal. It would have been to H2O’s benefit to have Corder dump out the material and have H2O haul the material to the disposal site, because H2O could then charge PES for transportation.

Simmons said if Corder couldn’t transport the waste, Corder should have stated he couldn’t haul it.

When asked if the hazardous waste manifest was only partially filled out when it was given to Corder, Simmons said, “No.” The waste manifest was completely filled out, except for the portion to be filled out by the designated facility, US Ecology.

When asked if there was a problem with the hazardous waste manifest once the material was received at US Ecology, Simmons said there was a discrepancy with the quantity of the soil material disposed. The manifest originally had 24 yards of material to be disposed, but US Ecology said the actual amount of material disposed was only 20 yards.

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**United States Environmental Protection Agency
Criminal Investigation Division
Investigative Activity Report**

Case Number:
1003-0101

Simmons provided H2O's Invoice to PES for the sampling of excavated material. The total cost was \$4,600.25. The Invoice is attached.

Simmons and Wickenden explained there are three requirements for a transporter to have in order to transport hazardous materials or hazardous waste. First, the driver needs a hazardous materials endorsement on his driver's license, which is a federal requirement. Second, the vehicle to be used in the transportation of hazardous material needs a hazardous materials endorsement, which is an Idaho Transportation Department requirement. Third, if transporting hazardous waste (hazardous waste is defined differently than hazardous materials), the load needs a hazardous waste permit.

At the conclusion of the interview, Wickenden expressed his concerns over the fact H2O was never told in the very beginning by PES the paint material had chromium hazardous material. Wickenden said H2O went out to the site to get an estimate and then sample under "good will." Wickenden claimed if they had cleaned up the material without being told of the potential dangers, they would have been exposed to chromium. Wickenden said "chromium is bad stuff." Wickenden said, "People were exposed because someone did clean it up."

The interview was concluded at approximately 12:30 p.m., after Wickenden and Simmons provided no further information.

After the interview, at approximately 2:30 p.m., Wickenden called SA Mugleston. Wickenden stated that after the interview, he and Simmons found some errors on the Hazardous Waste Manifest they prepared. Wickenden said that on line 5, the Generator's site address is incorrectly listed. Wickenden stated it was an oversight by listing the generator's site address as Caldwell, ID. In addition, Wickenden said that on line 6, the transporter should have been Corder and not H2O. Wickenden said the wrong transporter information was another "oversight" error. H2O uses a computer generated manifest, and they neglected to change the transporter from an old manifest to reflect Corder. Wickenden said there were no additional errors on the manifest.

Wickenden said if H2O would have used the correct transporter information, H2O would have caught that Corder did not allegedly have his hazmat endorsement. Wickenden explained that every transporter needs an EPA identification number. If Corder does not have his hazardous waste endorsement, Corder would not be able to get an EPA identification number. Wickenden expressed his frustrations that H2O made those errors on the manifest.

On May 5, 2016, Wickenden and Simmons were phoned by SA Mugleston to go over the above information and verify their statements.

ATTACHMENT

Services Estimate, dated 10 27 15
Wickendens Email Chain, dated 10 27_15
Strader Email Chain, dated 10 28_15
Chain of Custody, dated 11 18 15
Photos by Simmons, dated 11 18_15
ESC_Analytical, dated 11_19_15
Simmons Email, dated 11 30 15
Haz Waste Manifest, dated 12 29 15
USEcology Waste Profile Form, dated 12_01_15

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EPA CID Case No. 1003-0101: 0996

**United States Environmental Protection Agency
Criminal Investigation Division
Investigative Activity Report**

Case Number:

1003-0101

H2O Invoice, dated 2_27_16

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[illegible]

November 23, 2015

H2O Environmental - Garden City, ID

Sample Delivery Group: L801974
Samples Received: 11/19/2015
Project Number: Corder Prime
Description: Prime Excavation

Report To: Craig Simmons
6679 South Supply Way
Boise, ID 83716

Entire Report Reviewed By:



Jarred Willis
Technical Service Representative

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by ESC is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

EPA CID Case No. 1003-0101: 0999

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ONE LAB. NATIONWIDE.



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SAMPLE SUMMARY

ONE LAB. NATIONWIDE.



PRMES01 L801974-01 Waste

Collected by
Craig Simmons

Collected date/time
11/18/15 11:16

Received date/time
11/19/15 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst
Mercury by Method 7470A	WG830769	1	11/21/15 17:20	11/22/15 09:05	BRJ
Metals (ICP) by Method 6010B	WG830724	1	11/21/15 09:50	11/22/15 03:35	WBD
Preparation by Method 1311	WG830299	1	11/20/15 15:39	11/20/15 15:40	CHM

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

ACCOUNT:
H2O Environmental - Garden City, ID

PROJECT:
Corder Prime

SDG:
L801974

EPA Case No. 1003-0101: 1001

DATE/TIME:
11/23/15 15:29

PAGE:
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CASE NARRATIVE

ONE LAB. NATIONWIDE.



All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times. All MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jarred Willis
Technical Service Representative

¹ Cp² Tc³ Ss¹ Cn⁵ Sr⁶ Qc⁷ Gl⁸ Al⁹ Sc

ACCOUNT:
H2O Environmental - Garden City, ID

PROJECT:
Corder Prime

SDG:
L801974

EPA CID Case No. 1003-0101: 1002

DATE/TIME:
11/23/15 15:29

PAGE:
4 of 11

PRIMES01

Collected date/time: 11/18/15 11:16

SAMPLE RESULTS - 01

LB01974

ONE LAB. NATIONWIDE.



Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		11/20/2015 3:39:12 PM	WG830299

1 Cp

2 Tc

3 Ss

4 Cn

Mercury by Method 7470A

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Mercury	ND		0.0100	0.20	1	11/22/2015 09:05	WG830769

5 Sr

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Arsenic	ND		0.450	5	1	11/22/2015 03:35	WG830724
Barium	ND		1.35	100	1	11/22/2015 03:35	WG830724
Cadmium	ND		0.450	1	1	11/22/2015 03:35	WG830724
Chromium	18.5		0.450	5	1	11/22/2015 03:35	WG830724
Lead	ND		0.450	5	1	11/22/2015 03:35	WG830724
Selenium	ND		0.450	1	1	11/22/2015 03:35	WG830724
Silver	ND		0.450	5	1	11/22/2015 03:35	WG830724

6 Qc

7 Gl

8 Al

9 Sc

WG830769

Mercury by Method 7470A

QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.



Method Blank (MB)

(MB) 11/22/15 08:35

Analyte	MB Result mg/l	MB Qualifier	MB RDL mg/l
Mercury	ND		0.0100

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 GI

8 Al

9 Sc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/22/15 09:41 • (LCSD) 11/22/15 08:40

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Mercury	0.0300	0.0290	0.0286	97	95	80-120			1	20

L801683-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 11/22/15 08:42 • (MS) 11/22/15 08:45 • (MSD) 11/22/15 08:48

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.0300	ND	0.0223	0.0240	74	80	1	75-125	J6		7	20

L802002-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 11/22/15 08:50 • (MS) 11/22/15 08:53 • (MSD) 11/22/15 09:00

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Mercury	0.0300	ND	0.0242	0.0291	81	97	1	75-125			18	20

EPA CID Case No. 1003-0101; 1004

WG830724

Metals (ICP) by Method 6010B

QUALITY CONTROL SUMMARY

L801974-01

ONE LAB. NATIONWIDE.



Method Blank (MB)

(MB) 11/22/15 02:38

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l
Arsenic	ND		0.450
Barium	ND		1.35
Cadmium	ND		0.450
Chromium	ND		0.450
Lead	ND		0.450
Selenium	ND		0.450
Silver	ND		0.450

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) 11/22/15 02:41 • (LCSD) 11/22/15 02:43

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Arsenic	9.00	9.42	9.40	105	104	80-120			0	20
Barium	9.00	9.27	9.24	103	103	80-120			0	20
Cadmium	9.00	9.35	9.32	104	104	80-120			0	20
Chromium	9.00	9.80	9.77	109	109	80-120			0	20
Lead	9.00	9.54	9.53	106	106	80-120			0	20
Selenium	9.00	9.60	9.62	107	107	80-120			0	20
Silver	9.00	9.30	9.27	103	103	80-120			0	20

7 GI

8 Al

9 Sc

L801683-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 11/22/15 02:47 • (MS) 11/22/15 02:52 • (MSD) 11/22/15 02:55

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	9.00	0.185	9.70	9.77	106	107	1	75-125			1	20
Barium	9.00	0.357	9.35	9.37	100	100	1	75-125			0	20
Cadmium	9.00	ND	9.35	9.36	104	104	1	75-125			0	20
Chromium	9.00	ND	9.60	9.56	107	106	1	75-125			0	20
Lead	9.00	ND	9.54	9.50	106	106	1	75-125			0	20
Selenium	9.00	0.0372	9.82	9.88	109	109	1	75-125			1	20
Silver	9.00	ND	9.27	9.29	103	103	1	75-125			0	20

E:\QA\QC\SAMPLES\10-3-0101-1005

WG830724

Metals (ICP) by Method 6010B

QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.



L801974-01

L802002-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) 11/22/15 03:41 • (MS) 11/22/15 03:50 • (MSD) 11/22/15 03:53

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Arsenic	9.00	0.0289	9.42	9.38	104	104	1	75-125			0	20
Barium	9.00	0.0510	9.18	9.13	101	101	1	75-125			1	20
Cadmium	9.00	ND	8.57	8.49	95	94	1	75-125			1	20
Chromium	9.00	0.00328	9.74	9.60	108	107	1	75-125			1	20
Lead	9.00	0.529	9.85	9.78	104	103	1	75-125			1	20
Selenium	9.00	ND	9.65	9.57	107	106	1	75-125			1	20
Silver	9.00	ND	9.25	9.18	103	102	1	75-125			1	20

1 Cp

2 Tc

3 Ss

4 Cn

5 Sr

6 Qc

7 Gl

8 Al

9 Sc

EPA CID Case No. 1003-0101: 1006

GLOSSARY OF TERMS

ONE LAB, NATIONWIDE.



Abbreviations and Definitions

SDG	Sample Delivery Group.
MDL	Method Detection Limit.
RDL	Reported Detection Limit.
ND,U	Not detected at the Reporting Limit (or MDL where applicable).
RPD	Relative Percent Difference.
(dry)	Results are reported based on the dry weight of the sample. [this will only be present on a dry report basis for soils].
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
Rec.	Recovery.
SDL	Sample Detection Limit.
MQL	Method Quantitation Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.

Qualifier Description

J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
----	-------------------------------------------------------------------------------------------------------

¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.



ESC Lab Sciences is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our "one location" design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be **YOUR LAB OF CHOICE**.

State Accreditations

Alabama	40660	Nevada	TN-03-2002-34
Alaska	UST-080	New Hampshire	2975
Arizona	AZ0612	New Jersey-NELAP	TN002
Arkansas	88-0469	New Mexico	TN00003
California	01157CA	New York	11742
Colorado	TN00003	North Carolina	Env375
Connecticut	PH-0197	North Carolina ¹	DW21704
Florida	E87487	North Carolina ²	41
Georgia	NELAP	North Dakota	R-140
Georgia ¹	923	Ohio-VAP	CL0069
Idaho	TN00003	Oklahoma	9915
Illinois	200008	Oregon	TN200002
Indiana	C-TN-01	Pennsylvania	68-02979
Iowa	364	Rhode Island	221
Kansas	E-10277	South Carolina	84004
Kentucky ¹	90010	South Dakota	n/a
Kentucky ²	16	Tennessee ^{1,4}	2006
Louisiana	AI30792	Texas	T 104704245-07-TX
Maine	TN0002	Texas ⁵	LAB0152
Maryland	324	Utah	6157585858
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	109
Minnesota	047-999-395	Washington	C1915
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA
Nebraska	NE-QS-15-05		

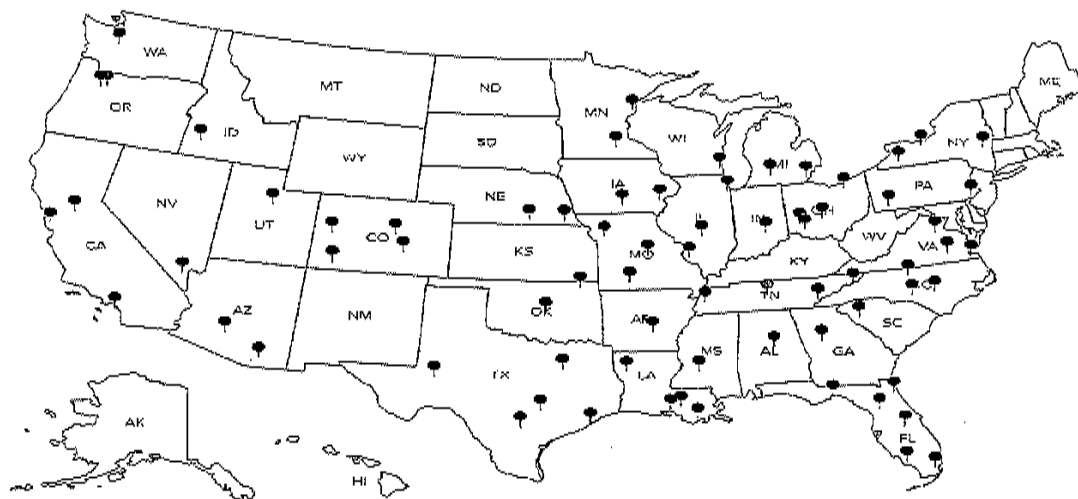
Third Party & Federal Accreditations

A2LA - ISO 17025	1461.01	AIHA	100789
A2LA - ISO 17025*	1461.02	DOH	1461.01
Canada	1461.01	USDA	5-67674
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ^{na} Accreditation not applicable

Our Locations

ESC Lab Sciences has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. **ESC Lab Sciences performs all testing at our central laboratory.**



¹ Cp

² Tc

³ Ss

⁴ Cn

⁵ Sr

⁶ Qc

⁷ Gl

⁸ Al

⁹ Sc

EPA CID Case No. 1003-0101: 1008

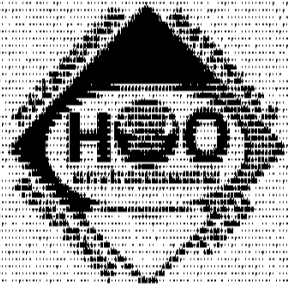
ACCOUNT:
H2O Environmental - Garden City, ID

PROJECT:
Corder Prime

SDG:
LB01974

DATE/TIME:
11/23/15 15:29

PAGE:
10 of 11



INVOICE

Invoice #	1003-0101-1009
Date	3/27/2018

Item	Description	Quantity	Unit Price	Total
1	HEO Logo	1	100.00	100.00
2	HEO Logo	1	100.00	100.00
3	HEO Logo	1	100.00	100.00
4	HEO Logo	1	100.00	100.00
5	HEO Logo	1	100.00	100.00
6	HEO Logo	1	100.00	100.00
7	HEO Logo	1	100.00	100.00
8	HEO Logo	1	100.00	100.00
9	HEO Logo	1	100.00	100.00
10	HEO Logo	1	100.00	100.00
11	HEO Logo	1	100.00	100.00
12	HEO Logo	1	100.00	100.00
13	HEO Logo	1	100.00	100.00
14	HEO Logo	1	100.00	100.00
15	HEO Logo	1	100.00	100.00
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25	HEO Logo	1	100.00	100.00
26	HEO Logo	1	100.00	100.00
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28	HEO Logo	1	100.00	100.00
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78	HEO Logo	1	100.00	100.00
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83	HEO Logo	1	100.00	100.00
84	HEO Logo	1	100.00	100.00
85	HEO Logo	1	100.00	100.00
86	HEO Logo	1	100.00	100.00
87	HEO Logo	1	100.00	100.00
88	HEO Logo	1	100.00	100.00
89	HEO Logo	1	100.00	100.00
90	HEO Logo	1	100.00	100.00
91	HEO Logo	1	100.00	100.00
92	HEO Logo	1	100.00	100.00
93	HEO Logo	1	100.00	100.00
94	HEO Logo	1	100.00	100.00
95	HEO Logo	1	100.00	100.00
96	HEO Logo	1	100.00	100.00
97	HEO Logo	1	100.00	100.00
98	HEO Logo	1	100.00	100.00
99	HEO Logo	1	100.00	100.00
100	HEO Logo	1	100.00	100.00

Grand Total	
Balance Due	
\$1,000.00	

EPA-CID Case No. 1003-0101-1009

Please print or type: (Form designed for use on elite (12-pitch) typewriter.)

Form Approved, OMB No. 2050-0039

15122911038 55300th 20415

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number IDR-000205219	2. Page 1 of 1	3. Emergency Response Phone (702) 386-4148	4. Manifest Tracking Number 008405001 JJK		
5. Generator's Name and Mailing Address PRIME, INC. 2740 NORTH MAYFAIR AVENUE SPRINGFIELD, MO 65803 Generator's Phone: 816-228-8530 2400			Generator's Site Address (if different than mailing address) PRIME, INC. 1-84 EAST BOUND, MM 26 CALDWELL, ID 83605				
6. Transporter 1 Company Name H2O ENVIRONMENTAL (BQISE)			U.S. EPA ID Number NVR000086498				
7. Transporter 2 Company Name			U.S. EPA ID Number				
8. Designated Facility Name and Site Address US ECOLOGY, INC. 20400 LEMLEY ROAD GRAND VIEW, ID 83624 Facility's Phone: 800-274-1518			U.S. EPA ID Number IDD073114854				
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt/Vol	13. Waste Codes
	X	NA3077, Hazardous waste, solid, n.o.s. (Chromium) 9, PGIII	001	DT DRS	0029	Y	D007
	2						
	3						
	4						
14. Special Handling Instructions and Additional Information 1) PROFILE# 38996 (HAZARDOUS WASTE "SOLID") ERG# 171 2) PROFILE# 3) PROFILE# 4) PROFILE# WEAR APPROPRIATE SAFETY EQUIPMENT IF UNDELIVERABLE, NOTIFY H2O							
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name; and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.							
Generator's/Offeror's Printed/Typed Name CRAIG SIMMONS			Signature <i>Craig Simmons</i>		"ON BEHALF OF" Month Day Year 12/29/15		
INTL	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: Date leaving U.S.:						
	Transporter signature (for exports only):						
TRANSPORTER	17. Transporter Acknowledgment of Receipt of Materials						
	Transporter 1 Printed/Typed Name Jim Greer / CWR LLC			Signature <i>Jim Greer</i>		Month Day Year 12/29/15	
DESIGNATED FACILITY	18. Discrepancy						
	18a. Discrepancy Indication Space <input checked="" type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection Quota released pending resolution 12/29/15 Actual received 90 yrcds, sh pu Craig Simmons via telecom 1/5/16 ck						
	18b. Alternate Facility (or Generator) U.S. EPA ID Number						
	Facility's Phone						
DESIGNATED FACILITY	18c. Signature of Alternate Facility (or Generator) Month Day Year						
	19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)						
1. H302		2.		3.		4.	
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a							
Printed/Typed Name Miguel Rodriguez			Signature <i>Miguel Rodriguez</i>		Month Day Year 12/29/15		

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

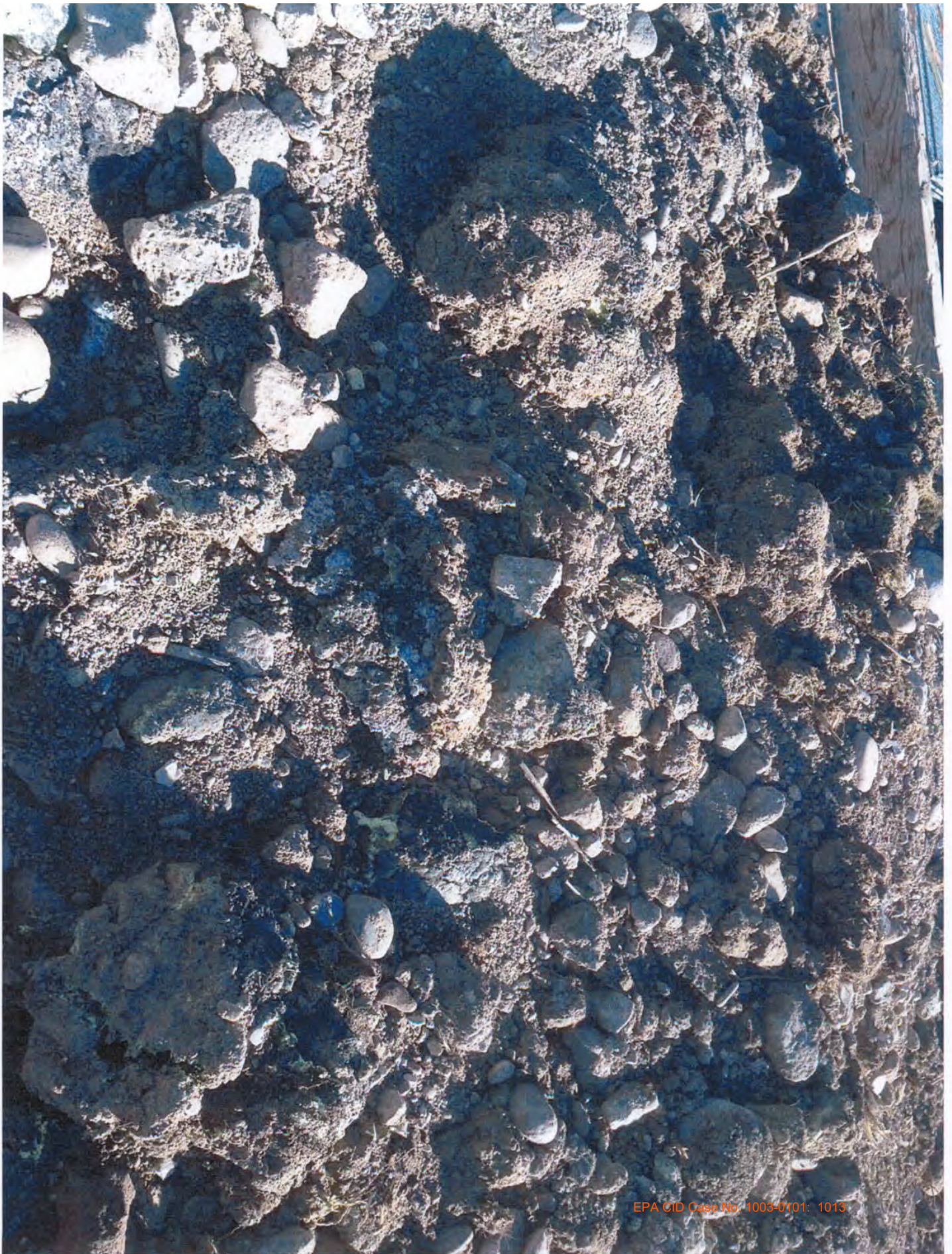
DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)



EPA C/D Case No. 1002-07041-1011



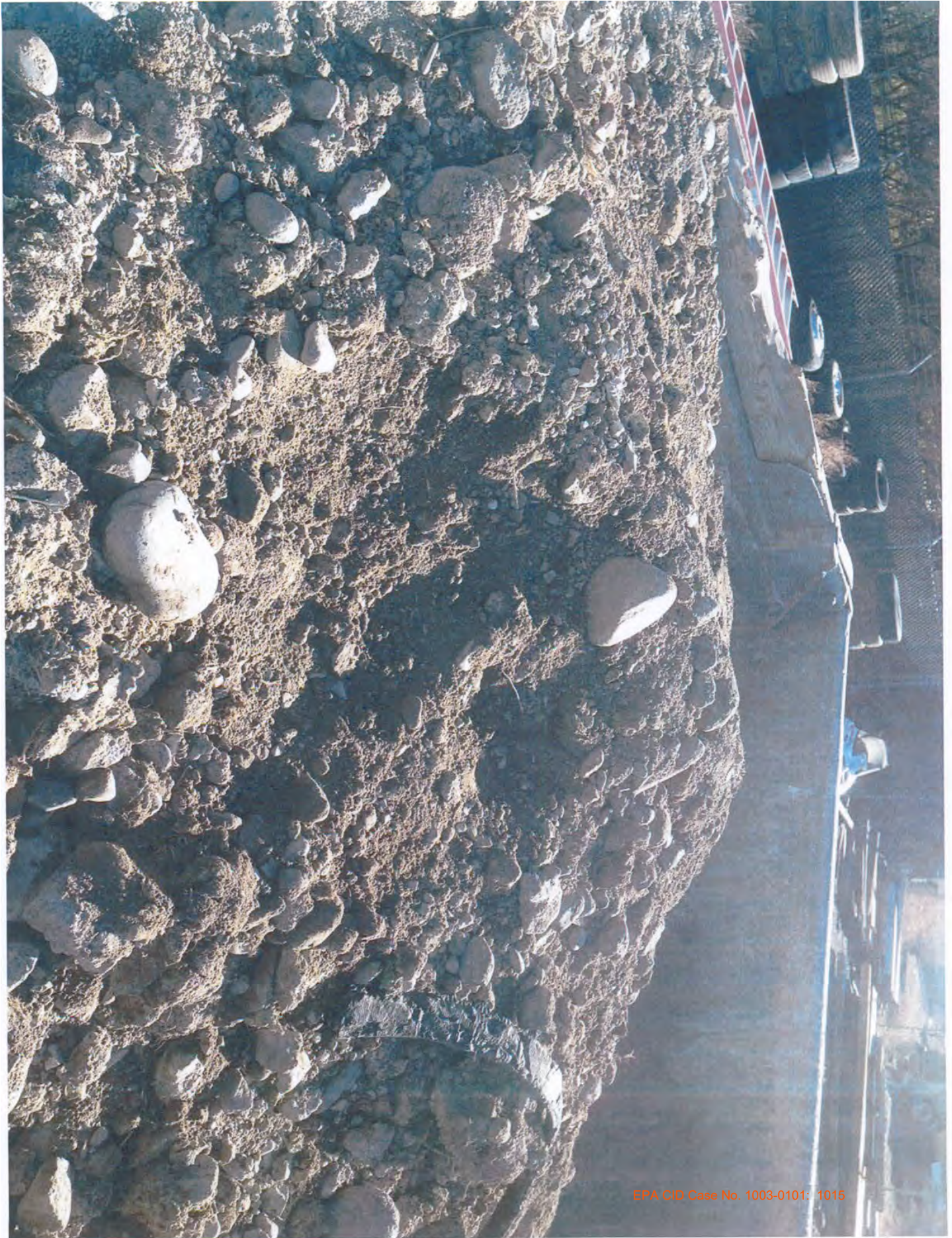
EPA CID Case No. 1003-0101, 1012



EPA CID Case No. 1003-0101: 1013



EPA-GID/Case No. 1003-0101-1014



EPA CID Case No. 1003-0101: 1015



Industrial & Hazardous Waste Remediation - Transport - Disposal
24 Hr. Emergency Response

- ☐ 4435 E. Colton Ave., Suite #101, Las Vegas, NV 89115, 702.396.4148
- ☐ 3510 Barron Way, Suite #200, Reno, NV 89511, 775.351.2237
- ☒ 6679 S. Supply Way, Boise, ID 83716, 208.343.7867
- ☐ 2364 South Airport Blvd., Suite #2, Chandler, AZ 85249, 480.855.5676
- ☐ 903 W. Center St., Suite D, N. Salt Lake, UT 84054, 801.677.0036
- ☐ 201-1 Quinella Dr., Sunland Park, NM 88063, 915.218.4634

www.envcleanup.com

SERVICES ESTIMATE

To:	Scott Strader			From:	Joe Wickenden		
Company:	Premium Environmental Services			Email:	jwickenden@envcleanup.com		
Address:				Date:	10-27-2015		
Email:	scott@premiumenvironmentalservices.com			Job Location:	I-84 Westbound Mile Marker 114.7 Hammett, ID 83627		
Phone:	812-853-2400	Cell:					
Scope of work: Excavation of petroleum (oil and diesel) and latex paint left from truck fire. Transport and dispose of waste in accordance with local, state, and federal regulations. Backfill site to ITD Standards. Estimate is for excavation of 40 yards of material. This is based on information given to H2O as well as site assessment. If the contamination is beyond 40 yards, more costs will be associated.							
Description	Rate	Quantity	UOM	Total			
Project Manager	85	15	hr	\$ 1,275.00			
Operator	65	12	hr	\$ 780.00			
Environmental Technician	50	12	hr	\$ 600.00			
Backhoe	75	10	hr	\$ 750.00			
Backhoe Delivery/Pickup	375	1	trip	\$ 375.00			
Disposal Charges - Non Hazardous, Non Regulated Soil	40	40	tons	\$ 1,600.00			
18-24 Yard Side Dump	115	12	hr	\$ 1,380.00			
18-24 Yard Side Dump	115	12	hr	\$ 1,380.00			
Backfill Material (Meeting ITD Specifications)	10	40	tons	\$ 400.00			
Traffic Control - Includes Traffic Plan	1	1000	per	\$ 1,000.00			
Analytical	1	500	lump	\$ 500.00			
				\$ 0.00			
				\$ 0.00			
				\$ 0.00			
				\$ 0.00			
				\$ 0.00			
Total				\$ 10,040.00			

Estimate Approval Signature: _____

Approval Date: _____

Work is invoiced hourly on a portal-to-portal time and materials basis. Changes in scope of work due to site conditions, waste volumes, waste characteristics, regulatory criteria or Client's request will constitute a change order and work will be invoiced using our current Posted Rates. Terms and conditions as set forth in the H2O Environmental Service Agreement are also applied. H2O Environmental has the necessary Contractors Licenses, transportation permits, bonds and Insurance coverage to perform this type of work. Certificates of Liability, Auto, Pollution Control and Workers Compensation Insurance are available upon request.

EPA CID Case No. 1003-0101: 1016

From: Craig Simmons [<mailto:csimmons@envcleanup.com>]
Sent: Monday, November 30, 2015 2:11 PM
To: tom@premiumenvironmentalservices.com
Cc: Joe Wickenden
Subject: Corder, Prime

Hello Tom,

Could I please get the SDS for the Prime paint spill in Hammett ID. I will get the information to our regulatory people and get this profiled into where it needs to go.

We will also need to have you get in touch with Prime Transportation and get them an E.P.A number for disposal. If there is anything you need from us please let me know.

Thank you,

Craig Simmons
Ops Director, Boise Base



6679 South Supply Way

Boise, ID 83716

Ph: 208.343.7867

Cell: 208.484.6752

Fax: 208.322.2670

csimmons@envcleanup.com

www.h2oenvironmental.org

- 24 hour hazmat response
- (866) H2O-SPILL
- vacuum truck & waste management services



Joe Wickenden

From: Tom Stone <tom@premiumenvironmentalservices.com>
Sent: Monday, November 30, 2015 1:50 PM
To: Craig Simmons
Cc: Joe Wickenden; James Sundys; Brittney Daugherty
Subject: RE: Cored, Prime
Attachments: MSDS_137D40.pdf; MSDS_B123C24.pdf; MSDS_BP1Y100B.pdf; MSDS_UC56609.pdf; BOL.pdf

Hi Craig,

Here are the SDS sheets and the BOL for the Prime cleanup. The BP1Y100B is the one with the elevated Strontium Chromate and Barium Chromate levels..and those drums of paint comprised almost half of the entire load, so it's not surprising that the analyticals were elevated.

We will work on getting the EPA ID for the site.

Generator Info:

Prime Inc.
2740 N Mayfair St
Springfield MO 65803
POC David White
417-866-0001

I have also copied Brittney Daugherty, our Waste Coordinator, on this email as well. Once the profile is completed, can you send it to her and myself for signature?

Thank you,

Tom Stone

Operations Manager



P.O. Box 370
5032 South Plaza Drive
Newburgh, IN 47629
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Phone: (812) 853-2400 Office
Fax: (812) 853-9400

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Joe Wickenden

From: Craig Simmons
Sent: Monday, November 30, 2015 4:03 PM
To: Tom Stone
Cc: Joe Wickenden
Subject: RE: Corder, Prime

Hello Tom,

Could you please send me all the generator information address, phone numbers, contact info. I need it to complete the waste profile form.

Thank you,

From: Tom Stone [<mailto:tom@premiumenvironmentalservices.com>]
Sent: Monday, November 30, 2015 1:50 PM
To: Craig Simmons
Cc: Joe Wickenden; James Sundys; Brittney Daugherty
Subject: RE: Cored, Prime

Hi Craig,

Here are the SDS sheets and the BOL for the Prime cleanup. The BP1Y100B is the one with the elevated Strontium Chromate and Barium Chromate levels..and those drums of paint comprised almost half of the entire load, so it's not surprising that the analyticals were elevated.

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From: Craig Simmons [<mailto:csimmons@envcleanup.com>]
Sent: Monday, November 30, 2015 2:11 PM
To: tom@premiumenvironmentalservices.com
Cc: Joe Wickenden
Subject: Corder, Prime

Hello Tom,

Could I please get the SDS for the Prime paint spill in Hammett ID. I will get the information to our regulatory people and get this profiled into where it needs to go.

We will also need to have you get in touch with Prime Transportation and get them an E.P.A number for disposal. If there is anything you need from us please let me know.

Thank you,

Craig Simmons
Ops Director, Boise Base



6679 South Supply Way
Boise, ID 83716

Ph: 208.343.7867

Cell: 208.484.6752

Fax: 208.322.2670

csimmons@envcleanup.com

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Joe Wickenden

From: Tom Stone <tom@premiumenvironmentalservices.com>
Sent: Monday, November 30, 2015 4:27 PM
To: Craig Simmons
Cc: Joe Wickenden; Brittney Daugherty
Subject: RE: Corder, Prime

Here you go. Can you please copy Brittney on these emails as well?

Generator Info:

Prime Inc.
2740 N Mayfair St
Springfield MO 65803
POC David White
417-866-0001

Thank you,

Tom Stone

Operations Manager



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From: Craig Simmons [mailto:csimmons@envcleanup.com]
Sent: Monday, November 30, 2015 5:03 PM
To: Tom Stone
Cc: Joe Wickenden
Subject: RE: Corder, Prime

Hello Tom,

Could you please send me all the generator information address, phone numbers, contact info. I need it to complete the waste profile form.

Thank you,

From: Tom Stone [mailto:tom@premiumenvironmentalservices.com]
Sent: Monday, November 30, 2015 1:50 PM
To: Craig Simmons
Cc: Joe Wickenden; James Sundys; Brittney Daugherty
Subject: RE: Cored, Prime

Hi Craig,

Here are the SDS sheets and the BOL for the Prime cleanup. The BP1Y100B is the one with the elevated Strontium Chromate and Barium Chromate levels..and those drums of paint comprised almost half of the entire load, so it's not surprising that the analyticals were elevated.

We will work on getting the EPA ID for the site.

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POC David White
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Tom Stone

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From: Craig Simmons [<mailto:csimmons@envcleanup.com>]
Sent: Monday, November 30, 2015 2:11 PM
To: tom@premiumenvironmentalservices.com
Cc: Joe Wickenden
Subject: Corder, Prime

Hello Tom,

Could I please get the SDS for the Prime paint spill in Hammett ID. I will get the information to our regulatory people and get this profiled into where it needs to go.
We will also need to have you get in touch with Prime Transportation and get them an E.P.A number for disposal.
If there is anything you need from us please let me know.

Thank you,

Craig Simmons
Ops Director, Boise Base



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Fax: 208.322.2670

csimmons@envcleanup.com

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- vacuum truck & waste management services



Joe Wickenden

From: Scott Strader <scott@premiumenvironmentalservices.com>
Sent: Wednesday, October 28, 2015 12:22 PM
To: Joe Wickenden
Cc: 'James Sundys'; 'Tom Stone'
Subject: RE: Hammett, ID Excavation Estimate

Joe,

I just want to let you know, we went with another contractor for this excavation. I appreciate all your help.

Thank you,

Scott Strader



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5032 South Plaza Drive
Newburgh, IN 47629
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From: Joe Wickenden [<mailto:jwickenden@envcleanup.com>]
Sent: Tuesday, October 27, 2015 9:45 AM
To: Scott Strader <scott@premiumenvironmentalservices.com>
Subject: Hammett, ID Excavation Estimate

Hi Scott,

I apologize for not getting this to you sooner! Attached is an estimate for the cleanup in Hammett, ID. We are prepared to get this scheduled once you give us a go-ahead. If you have any questions or concerns please give me a call or shoot me an email.

Thank you,

Joe Wickenden
Base Manager



6679 S. Supply Way
Boise, ID 83716

(208)343-7867 Office

(208)602-8986 Cell

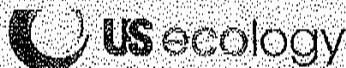
(208)322-2670 Fax

jwickenden@envcleanup.com

www.envcleanup.com

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- vacuum truck & waste management services



**WASTE PROFILE FORM**

US Ecology Nevada (Beatty) 800-239-3993
US Ecology Idaho (Grand View) 800-274-1516
US Ecology Texas (Robstown) 800-242-3209
US Ecology Michigan (Detroit) 800-396-3265

PROFILE # _____

A. GENERATOR INFORMATION			
1. Generator: Prime Inc.		<input type="checkbox"/> Billing information is same <input type="checkbox"/> P.O. required for payment	
2. Facility Address: 2740 N Mayfair St Springfield, MO 65803		12. Billing Company: H2O Environmental	
3. Mailing Address: 2740 N Mayfair St		13. Billing Address: 6679 S Supply Way	
4. City/State/Zip: Springfield, MO 65803		14. City/State/Zip: Boise Idaho 83716	
5. Technical Contact: Craig Simmons		15. Billing Contact: Ray McVey	
6. Phone: (208)343-7867		7. Fax: (208)322-2670	16. Phone: (208)343-7867
			17. Fax: (208)322-2670
8. Generator Status: <input type="checkbox"/> CESQG <input type="checkbox"/> SQG <input checked="" type="checkbox"/> LQG		18. Email: mcvey@envcleanup.com	
9. EPA ID #: IDR000126219		10. State ID #:	
11. SIC Codes: 4213 1794			
B. SHIPPING INFORMATION			
1. US DOT Shipping name: NA 3077 HAZARDOUS WASTE SOLID N.O.S. (CHROMIUM) 9 III			
2. Hazard Class: 9		3. UN/NA #: 3077	4. Packaging Group: III
5. RQ: NA			
6. Container Type: <input checked="" type="checkbox"/> Bulk <input type="checkbox"/> Totes <input type="checkbox"/> Pallet <input type="checkbox"/> Boxes <input type="checkbox"/> Drums <input type="checkbox"/> Other, Describe:			
7. Frequency: <input type="checkbox"/> Year <input type="checkbox"/> Quarterly <input type="checkbox"/> Monthly <input checked="" type="checkbox"/> 1 time <input type="checkbox"/> Other, Describe:			
8. Shipment: Size: 25		Quantity: YARD	9. Waste Import: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, complete Waste Import Supplement)
C. GENERAL MATERIAL & REGULATORY INFORMATION			
1. Common name for this waste: Soil contaminated with Chromium			
2. Process generating the material: Excavation from truck accident			
3. Describe physical appearance and odor of the waste: Soil with paint stains			
4. Odor of the waste: <input type="checkbox"/> None <input checked="" type="checkbox"/> Slight <input type="checkbox"/> Strong		5. Physical State: <input type="checkbox"/> Liquid <input type="checkbox"/> Sludge/Slurry <input checked="" type="checkbox"/> Solid	
6. Describe Color: Earth Tone with various colors		7. Liquid phases: <input type="checkbox"/> Single <input type="checkbox"/> Double Layer <input type="checkbox"/> Multi-layer	
8. Knowledge is from: <input checked="" type="checkbox"/> Lab analysis <input type="checkbox"/> MSDS <input type="checkbox"/> Process/generator knowledge			
9. Waste Type (US Ecology Texas customers only): <input type="checkbox"/> N/A <input type="checkbox"/> Industrial <input type="checkbox"/> Non-Industrial			
10. Is the waste restricted under EPA Land Disposal Restrictions (5268)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
11. If LDR "Yes", is waste: <input type="checkbox"/> Wastewater <input checked="" type="checkbox"/> Non-wastewater <input type="checkbox"/> Debris (5268.2)		12. Alt. Standards for soil? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
13. Is the waste RCRA hazardous waste containing benzene and originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-Product Recovery Plant (SIC 3312)? (If yes, complete Benzene Waste Operations Supplement Form and Thermal Supplement Form):		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
14. VO Conc.(5264.1083): <input checked="" type="checkbox"/> <500 ppmw <input type="checkbox"/> ≥500ppmw		15. Has waste been treated after point of generation? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
16. CERCLA Regulated (Superfund) Waste: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		17. Butadiene waste regulated by 563 Subpart XX: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
18. Waste contains UHC constituent(s) (5268.48), above a treatment standard, other than those for which the waste exhibits a characteristic. (If yes, list all UHC's in Section D):		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
19. Waste exempt from definition of "solid waste" or "hazardous waste" (If yes, list reference 40CFR _____):		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
20. State Waste Codes:			
21. RCRA Waste Codes: D007			
22. Source Code: G75 I			
23. Form Code: N/A		24. Management Code: H (USE only)	

Revision date: 07/15/2015

Page 1

EPA GID Case No. 1003-0101- 1027

D. MATERIAL COMPOSITION (use additional form if necessary)

Constituent	Units	TCLP	Totals	Range total $\geq 100\%$		
				Typical	Min	Max
soil	%	<input type="checkbox"/>	<input checked="" type="checkbox"/>	100	100	100
chromium	mg/l	<input checked="" type="checkbox"/>	<input type="checkbox"/>	18.5	18.5	18.5
SILVER (RDL Greater than treatment standards)	MG/L	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.450	0.450	0.450
CADMIUM (RDL Greater than treatment standards)	MG/L	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.450	0.450	0.450
		<input type="checkbox"/>	<input type="checkbox"/>			
		<input type="checkbox"/>	<input type="checkbox"/>			
		<input type="checkbox"/>	<input type="checkbox"/>			
		<input type="checkbox"/>	<input type="checkbox"/>			
		<input type="checkbox"/>	<input type="checkbox"/>			
		<input type="checkbox"/>	<input type="checkbox"/>			
		<input type="checkbox"/>	<input type="checkbox"/>			

E. WASTE CHARACTERISTICS

1. Oxidizer	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	9. Reactive sulfides	ppm	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
2. Explosive	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	10. Reactive cyanides	ppm	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
3. Organic peroxide	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	11. Water/air reactive		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
4. Shock sensitive	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	12. Thermally unstable		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
5. Tires	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	13. TSCA regulated PCB waste (control sheet required with shipment)		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
6. Pyrophoric	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	14. Medical/infectious waste		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
7. Compressed gas	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	15. Radioactive (If yes, complete Profile Supplement for Radioactive Waste)		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
8. Halogenated organics	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
16. Possibility of incidental liquids from transportation? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
17. Is waste a solid using the paint filter test? <input checked="" type="checkbox"/> Yes (solid) <input type="checkbox"/> No (not solid)				
18. pH: (If solid, what is pH if mixed with water?) Range 7 to 7 Typical 7 <input type="checkbox"/> ≤ 2 <input type="checkbox"/> $2 < 12.5$ <input type="checkbox"/> ≥ 12.5				
19. Flash Point: NA $^{\circ}$ F <input type="checkbox"/> $< 140^{\circ}$ F				
20. Is the waste oil bearing waste from Petroleum Refining, Production or Transportation practices? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				

F. GENERATOR'S CERTIFICATION

☐ Yes ☒ No I certify this material may be disposed without further treatment.

I authorize US Ecology to correct inconsistencies on the waste profile form that impact waste management decisions with my oral or written authorization. US Ecology will require re-submittal of the waste profile information if substantial changes are determined necessary. I understand material that does not conform to specifications described in this profile may be rejected by US Ecology unless other contractual arrangements have been agreed to by both parties. I certify, under penalty of law, that I am familiar with this waste stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, that all known or suspected hazards have been disclosed, and that this form was completed in accordance with the instructions provided.

Print Name	Signature	Title	Date
Brittney Daugherty	<i>Brittney Daugherty</i>	Authorized Agent	12/1/2015

Revision date: 07/15/2015

Page 2

EPA CID Case No. 1003-0101- 1028

Joe Wickenden

From: Scott Strader <scott@premiumenvironmentalservices.com>
Sent: Tuesday, October 27, 2015 11:29 AM
To: Joe Wickenden
Cc: 'Tom Stone'
Subject: RE: Hammett, ID Excavation Estimate

Joe,

I will get with the client to see how they want to proceed.

Thank you,

Scott Strader



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From: Joe Wickenden [<mailto:jwickenden@envcleanup.com>]
Sent: Tuesday, October 27, 2015 9:45 AM
To: Scott Strader <scott@premiumenvironmentalservices.com>
Subject: Hammett, ID Excavation Estimate

Hi Scott,

I apologize for not getting this to you sooner! Attached is an estimate for the cleanup in Hammett, ID. We are prepared to get this scheduled once you give us a go-ahead. If you have any questions or concerns please give me a call or shoot me an email.

Thank you,

Joe Wickenden
Base Manager



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**United States Environmental Protection Agency
Criminal Investigation Division
Investigative Activity Report**

Case Number:

1003-0101

Case Title:

Prime, Inc

Subject of Report:

Interview of Noel Bailey, US Ecology

Reporting Office:

Boise, ID, Resident Office

Activity Date:

May 17, 2016

Reporting Official and Date:

Darin J. Mugleston

Resident Agent in Charge

20-MAY-2016, Signed by Darin J. Mugleston

Approving Official and Date:

Edward W. Owens

Assistant Special Agent in Charge

20-MAY-2016, Approved by Edward W. Owens

Assistant Special Agent in Charge

SYNOPSIS

On May 17, 2016, Noel Bailey, Technical Manager, US Ecology Idaho - a US Ecology Inc. company (US Ecology), was interviewed. Bailey said the transporter, Tim Corder, of the questioned hazardous material, had in his possession the Hazardous Waste Manifest when he arrived at US Ecology. When Corder provided the manifest to US Ecology, the manifest was completely filled out by the generator, except for the section for the Designated Facility. Additionally, Corder filled out a Hazardous Waste Permit form at US Ecology.

DETAILS

On May 17, 2016, at approximately 10:50 a.m., Noel Bailey, Technical Manager, US Ecology, 20400 Lemley Road, Grand View, Idaho 83624, was interviewed at his employment by Special Agent (SA) Darin Mugleston and SA [REDACTED] EPA-CID. Present during the interview was Rebecca Hogaboam, Environmental Compliance Manager, US Ecology. Bailey was interviewed regarding paint contaminated soil being disposed as hazardous waste at US Ecology on December 29, 2015.

Bailey briefly explained the process for inbound disposal of hazardous waste. US Ecology also accepts non-hazardous waste. Before the waste is transported to US Ecology for disposal, the generator of the waste has to fill out a US Ecology Waste Profile Form to identify if the waste is hazardous or non-hazardous. If the waste is hazardous, the Waste Profile Form will have the waste analysis attached to the form. The generator is responsible for informing US Ecology what makes the material hazardous. After the generator submits the Waste Profile Form and US Ecology approves the form, the generator will then schedule a disposal date with US Ecology.

Further, the generator also completes and signs the Land Disposal Restriction (LDR) Form, which is in accordance with 40 Code of Federal Regulations part 268.

Bailey further explained any hazardous waste being transported across state lines or within the State of Idaho needs a Hazardous Waste Permit (also known as a "Trip Permit") from the Idaho Transportation Department (ITD). Transporters get the permit when they go through Ports of Entry. Bailey stated that ITD has authorized US Ecology to issue Hazardous Waste Permits to transporters disposing waste at US Ecology. Bailey explained many Idaho transporters don't go through Ports of Entry before getting to US Ecology; therefore, they are unable to obtain a Hazardous Waste Permit. Consequently, US Ecology will issue the permit to the transporter at its facility. This permit is an Idaho State Regulation. The Idaho Statutes for Motor Vehicles is attached.

Bailey explained what happens next to a load of hazardous waste when arriving for disposal at US Ecology. Bailey said the transporter provides US Ecology with the Hazardous Waste Manifest, which is

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EPA CID Case No. 1003-0101: 1035

**United States Environmental Protection Agency
Criminal Investigation Division
Investigative Activity Report**

Case Number:
1003-0101

prepared by the generator in advance. After the paperwork is provided to US Ecology, the Hazardous Waste Manifest along with the Hazardous Waste Permit and LDR form go to the Receiving Department. The transporter truck is then weighed in and goes to the waste receiving process for disposal.

Bailey stated the intake process can take about a half hour from start to finish for most bulk loads.

Bailey and Hogaboam were then asked questions regarding the shipment and disposal of hazardous waste generated by Prime, Inc, on December 29, 2015. Bailey said he recalls this specific disposal, because of the confusion over who was listed as the transporter on the below manifest.

Bailey said that on December 1, 2015, Brittney Daugherty, Authorized Agent, for the generator, Prime, Inc., signed the Waste Profile Form for the questioned material, which was then submitted to US Ecology. In addition, the LDR was submitted with the Waste Profile Form. The Waste Profile Form and LDR are attached.

Bailey said the Hazardous Waste Manifest for the questioned material was already filled out by the generator before the transporter, Tim Corder, arrived at US Ecology, on December 29, 2015. Bailey said the only portion not filled out on the manifest was Sections 18, 19, and 20, which were to be filled out by the designated facility, US Ecology. A copy of the Hazardous Waste Manifest is attached.

Bailey claimed there was a discrepancy with the questioned Hazardous Waste Manifest. The manifest had the quantity of material being disposed listed as 24 cubic yards. However, after the truck was weighed, the actual amount was 20 yards. Bailey said it's not uncommon for generators to be off on the estimated weight, because they don't have access to scales when preparing the manifests. After the load was weighed, the amount disposed was 27.66 tons (55,320 lbs) of hazardous soil material. A copy of the weight ticket is attached.

Bailey said that when the questioned material arrived at US Ecology, there was some confusion over the transporter. The manifest had the transporter listed as H2O Environmental. However, Tim Corder was the actual transporter of the waste. Bailey claimed it took a little bit of time for US Ecology to correct the confusion. Bailey recalled contacting H2O to clear up the confusion.

Bailey said he knows Tim Corder, because Corder had previously brought waste to US Ecology. Bailey does not know if the waste brought in by Corder was hazardous or non-hazardous. Additionally, Bailey said Corder's sister, Maria McMonigle, is US Ecology's Director of Customer Service.

Bailey said when Tim Corder arrived at US Ecology, Corder filled out the Hazardous Waste Permit for the questioned material. A copy of the Hazardous Waste Permit is attached.

When asked if Tim Corder has his hazardous material endorsement on his driver's license, Bailey said he does not know if Corder has his hazmat endorsement. Bailey said US Ecology does not check the transporters' licenses to see if they are endorsed to transport hazardous waste. Bailey said it's ITD's responsibility to determine if Corder has his hazmat endorsement.

When asked if Tim Corder knew the material being disposed was hazardous waste, Bailey said he can't speak to Corder's knowledge of hazardous waste. However, Bailey said Corder had in his possession the Hazardous Waste Manifest, which says the material was hazardous. In addition, Bailey said Corder filled out the Hazardous Waste Permit at US Ecology.

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EPA CID Case No. 1003-0101: 1036

**United States Environmental Protection Agency
Criminal Investigation Division
Investigative Activity Report**

Case Number:
1003-0101

Bailey did not know if Corder's truck had hazardous waste placards.

Bailey reiterated the Hazardous Waste Manifest was completely filled out by the generator, except for the section for the Designated Facility.

When asked how long Corder was at US Ecology during the disposal process, Bailey said the process took about an hour, because the weight ticket had Corder coming in at 12:47 p.m. and leaving at 1:48 p.m.

Bailey said US Ecology Invoiced H2O for the disposal. The disposal amount was \$3,605.48. A copy of the Invoice is attached.

Bailey provided additional US Ecology documents, which relate to the stabilization of the material. The Stabilization documents and Field Sheets are attached.

ATTACHMENT

- 1-Idaho Statutes
- 2-Waste Profile Form and Profile Tracking Form, dated 12_01_15
- 3-Land Disposal Restriction form, dated 12_29_15
- 4-Hazardous Waste Manifest, dated 12_29_15
- 5-Weight Ticket, dated 12_29_15
- 6-Hazardous Waste Permit, dated 12_29_15
- 7-Invoice, dated 01_08_16
- 8-US Ecology Stabilization and Field Sheet, dated 12_29_15

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EPA CID Case No. 1003-0101: 1037

ATTACHMENT 1 Idaho Statutes



Idaho Statutes

TITLE 49 MOTOR VEHICLES

CHAPTER 22 HAZARDOUS MATERIALS/HAZARDOUS WASTE TRANSPORTATION ENFORCEMENT

49-2202. PERMIT REQUIREMENTS FOR TRANSPORTERS OF HAZARDOUS WASTES. (1) Every person, including a private carrier or a common or contract carrier, who operates a vehicle on any highway of this state transporting hazardous waste shall first procure from the department an annual or single trip permit for each vehicle so driven in which the shipment meets any one of the following qualifiers:

- (a) Is required to be placarded pursuant to title 49, code of federal regulations, part 172;
- (b) Is manifested on a United States environmental protection agency uniform hazardous waste manifest form 8700-22 and 8700-22A, or its equivalent;
- (c) Is any waste material containing polychlorinated biphenyls (PCB) which is regulated by title 40, code of federal regulations, part 761; but in the event waste material is being transported to a disposal facility approved in compliance with 40 CFR 761.70 or 40 CFR 761.75 and is accompanied by a hazardous waste manifest form 8700-22 or 8700-22A, or its equivalent, then a permit shall be required regardless of the polychlorinated biphenyl concentration.

This permit shall be available for examination and shall be displayed in accordance with rules adopted by the department. The provisions of this section shall not apply to vehicles owned by any city, county, state or federal governmental department or agency, special purpose district created pursuant to law or rural electric cooperatives.

(2) The fee for a single trip permit for the transportation of hazardous waste shall be twenty dollars (\$20.00).

(3) The fee for an annual permit for the transportation of hazardous waste shall be two hundred fifty dollars (\$250).

(4) Any carrier required to pay the fees assessed pursuant to this section is authorized to pass along such fees to the shipping party. No portion of the fees shall be prorated, reduced or transferred to another vehicle.

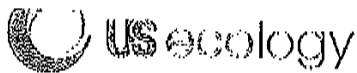
(5) The department may select vendors to serve as agents on state highways for the purpose of selling hazardous waste permits where fixed ports of entry do not adequately serve a respective highway entering the state. The vendor shall be remunerated at the rate determined by contract between the vendor and the department per permit sold, and the vendor shall collect the fees provided in this section, and pay the fees to the department. The vendor shall guarantee payment by giving a bond to the state of Idaho in a sum as shall be fixed by the department, the premium on the bond to be paid by the department.

(6) The operation of a vehicle, which is subject to the permit requirements of this section in a negligent manner is a violation of the provisions of this chapter.

History:

[49-2202, added 1988, ch. 265, sec. 454, p. 814; am. 1989, ch. 317, sec. 1, p. 816; am. 1990, ch. 331, sec. 1, p. 908; am. 2006, ch. 20, sec. 1, p. 78.]

ATTACHMENT
2
US Ecology Waste Profile Form
and
Profile Tracking Form



WASTE PROFILE FORM

US Ecology Nevada (Beatty)
US Ecology Idaho (Grand View)
US Ecology Texas (Robstown)
US Ecology Michigan (Detroit)

800-237-3943
800-274-1511
800-242-3209
800-396-3265

PROFILE # 38946

A. GENERATOR INFORMATION			
1. Generator: Prime Inc. <i>See 4. Updates</i>		<input type="checkbox"/> Billing information is same <input type="checkbox"/> P.O. required for payment	
2. Facility Address: <i>PO Box 6444 Springfield, MO 65803</i>		12. Billing Company: H2O Environmental	
3. Mailing Address: 2740 N Mayfair St		13. Billing Address: 6079 S Supply Way	
4. City/State/Zip: Springfield, MO 65803		14. City/State/Zip: Bolso Idaho 83716	
5. Technical Contact: Craig Simmons		15. Billing Contact: Ray McVoy	
6. Phone: (208)343-7867		16. Phone: (208)343-7867	17. Fax: (208)322-2670
7. Fax: (208)322-2670		18. Email: mcvoy@envcleanup.com	
8. Generator Status: <input type="checkbox"/> CESQG <input type="checkbox"/> SQG <input checked="" type="checkbox"/> LQG			
9. EPA ID #: <i>IDR000206219</i>		10. State ID #:	
11. SIC Codes: 4213 1794			
B. SHIPPING INFORMATION			
1. US DOT Shipping name: <i>NA 3077, HAZARDOUS WASTE SOLID N.O.S. (CHROMIUM), 9, 11</i>			
2. Hazard Class: 9		3. UN/NA #: 3077	4. Packaging Group: III
5. RQ: NA			
6. Container Type: <input checked="" type="checkbox"/> Bulk <input type="checkbox"/> Totes <input type="checkbox"/> Pallet <input type="checkbox"/> Boxes <input type="checkbox"/> Drums <input type="checkbox"/> Other, Describe:			
7. Frequency: <input type="checkbox"/> Year <input type="checkbox"/> Quarterly <input type="checkbox"/> Monthly <input checked="" type="checkbox"/> 1 time <input type="checkbox"/> Other, Describe:			
8. Shipment: Size: <i>25</i> Quantity: <i>YARD</i>		9. Waste Import: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If yes, complete Waste Import Supplement)	
C. GENERAL MATERIAL & REGULATORY INFORMATION			
1. Common name for this waste: <i>Soil contaminated with Chromium</i>			
2. Process generating the material: <i>Excavation from truck accident</i>			
3. Describe physical appearance and odor of the waste: <i>Soil with paint stains</i>			
4. Odor of the waste: <input type="checkbox"/> None <input checked="" type="checkbox"/> Slight <input type="checkbox"/> Strong		5. Physical State: <input type="checkbox"/> Liquid <input type="checkbox"/> Sludge/Slurry <input checked="" type="checkbox"/> Solid	
6. Describe Color: <i>Earth Tone with various colors</i>		7. Liquid phases: <input type="checkbox"/> Single <input type="checkbox"/> Double Layer <input type="checkbox"/> Multi-Layer	
8. Knowledge is from: <input checked="" type="checkbox"/> Lab analysis <input type="checkbox"/> MSDS <input type="checkbox"/> Process/generator knowledge			
9. Waste Type (US Ecology Texas customers only): <input type="checkbox"/> N/A <input type="checkbox"/> Industrial <input type="checkbox"/> Non-Industrial			
10. Is the waste restricted under EPA Land Disposal Restrictions (§268)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
11. If LDR "Yes", is waste: <input type="checkbox"/> Wastewater <input checked="" type="checkbox"/> Non-wastewater <input type="checkbox"/> Debris (§268.2)			
12. Alt. Standards for soil? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
13. Is the waste RCRA hazardous waste containing benzene and originating at a Petroleum Refinery (SIC 2911), Chemical Manufacturing Plant (SIC 2800 thru 2899) or Coke by-Product Recovery Plant (SIC 3312)? (If yes, complete Benzene Waste Operations Supplement Form and Thermal Supplement Form): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
14. VO Conc. (§264.1083): <input checked="" type="checkbox"/> <500 ppmw <input type="checkbox"/> ≥500 ppmw		15. Has waste been treated after point of generation? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
16. CERCLA Regulated (Superfund) Waste: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		17. Butadiene waste regulated by §63 Subpart XX: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
18. Waste contains UHC constituent(s) (§268.48), above a treatment standard, other than those for which the waste exhibits a characteristic. (If yes, list all UHC's in Section D): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
19. Waste exempt from definition of "solid waste" or "hazardous waste" (If yes, list reference 40CFR _____): <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
20. State Waste Codes:			
21. RCRA Waste Codes: <i>D007</i>			
22. Source Code: <i>076-044</i>		23. Form Code: <i>NAW301</i>	24. Management Code: <i>H</i> (USE only)

D. MATERIAL COMPOSITION (use additional sheets if necessary)						
Constituent	Units	TCLP	Totals	Range total $\geq 100\%$		
				Typical	Min	Max
soil	%	<input type="checkbox"/>	<input checked="" type="checkbox"/>	100	100	100
chromium	mg/l	<input checked="" type="checkbox"/>	<input type="checkbox"/>	10.5	10.5	10.5
SILVER (RDL Greater than Treatment STANDARDS)	MG/L	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.450	0.450	0.450
CADMIUM (RDL Greater than Treatment STANDARDS)	MG/L	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.450	0.450	0.450
		<input type="checkbox"/>	<input type="checkbox"/>			
		<input type="checkbox"/>	<input type="checkbox"/>			
		<input type="checkbox"/>	<input type="checkbox"/>			
		<input type="checkbox"/>	<input type="checkbox"/>			
		<input type="checkbox"/>	<input type="checkbox"/>			
		<input type="checkbox"/>	<input type="checkbox"/>			
		<input type="checkbox"/>	<input type="checkbox"/>			

E. WASTE CHARACTERISTICS			
1. Oxidizer	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	9. Reactive sulfides _____ ppm
2. Explosive	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	10. Reactive cyanides _____ ppm
3. Organic peroxide	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	11. Water/air reactive
4. Shock sensitive	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	12. Thermally unstable
5. Tires	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	13. TSCA regulated PCB waste (control sheet required with shipment)
6. Pyrophoric	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	14. Medical/Infectious waste
7. Compressed gas	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	15. Radioactive (If yes, complete Profile Supplement for Radioactive Waste)
8. Halogenated organics	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
16. Possibility of incidental liquids from transportation? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
17. Is waste a solid using the paint filter test? <input checked="" type="checkbox"/> Yes (solid) <input type="checkbox"/> No (not solid)			
18. pH: (If solid, what is pH if mixed with water?) Range 7 to 7 Typical 7 <input type="checkbox"/> ≤ 2 <input type="checkbox"/> $2 < 12.5$ <input type="checkbox"/> ≥ 12.5			
19. Flash Point: NA \geq F <input type="checkbox"/> $< 140 \geq$ F			
20. Is the waste oil bearing waste from Petroleum Refining, Production or Transportation practices? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			

F. GENERATOR'S CERTIFICATION	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	I certify this material may be disposed without further treatment.
<p>I authorize US Ecology to correct inconsistencies on the waste profile form that impact waste management decisions with my oral or written authorization. US Ecology will require re-submittal of the waste profile information if substantial changes are determined necessary. I understand material that does not conform to specifications described in this profile may be rejected by US Ecology unless other contractual arrangements have been agreed to by both parties. I certify, under penalty of law, that I am familiar with this waste stream through analysis and/or process knowledge, and that all information provided is true, accurate, representative and complete, that all known or suspected hazards have been disclosed, and that this form was completed in accordance with the instructions provided.</p>	
Print Name	Signature
Brittney Daugherty	Brittney Daugherty
Title	Date
Authorized Agent	12/1/2015



WASTE PROFILE MODIFICATION FORM

Facility Use Only	
Date Added	Initial
12/29/2015	SL

PROFILE # 38946-0

A. GENERATOR INFORMATION

Generator:	PRIME INC.	Requestor Name (Print):	CRAIG SIMMONS
Facility Address (No PO Boxes):	I-84 Eastbound mm 25, Caldwell, ID	Title:	
Mailing Address:	2740 N MAYFAIR ST	Phone:	208-343-7867
City/State/Zip:	SPRINGFIELD, MO 65803		
Common Name of Waste:			

B. AMENDMENTS

1. Section A2 ☐ Addition ☐ Deletion ☒ Change

Describe:

Customer Requests Generator Site/Address to be updated to I-84 Eastbound MM 25, Caldwell, ID 83605
Per Craig Simmons Via Telecomm 12/29/15

2. Section ☐ Addition ☐ Deletion ☐ Change

Describe:

3. Section ☐ Addition ☐ Deletion ☐ Change

Describe:

4. Section ☐ Addition ☐ Deletion ☐ Change

Describe:

C. GENERATORS CERTIFICATION

I hereby certify that the amendments noted above to the above referenced profile are complete and accurate to the best of my knowledge and ability to determine that no deliberate or willful omissions of composition or properties exist and that all known or suspected hazards have been disclosed.

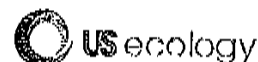
Generator's Authorized Signatory: _____

USEI PROFILE TRACKING FORM

WPQ Number 38946		EPA Waste Codes D007 UHCs <input checked="" type="radio"/> Y <input type="radio"/> N		Customer/Generator H20 / Prime INC.	
WPQ Summary		Customer Service		Date: 12/15/15	Waste Approvals/Rad Review
Common Name for This Material		Profile Received			Date: 12/15/15
soil cont. w/ cadmium		Profile Review (All sections complete)			
<input checked="" type="checkbox"/> 1-Time		Entered into AESOP			
Waste Management		Signature: <i>[Signature]</i>		12/17/15	Forward to Lab
<input checked="" type="checkbox"/> RCRA		(Non-Standard Pricing)			Signature: <i>[Signature]</i>
<input type="checkbox"/> Non RCRA		Pricing Built in AESOP <input type="checkbox"/>			Lab
<input type="checkbox"/> TSCA		Pricing Approved by Management <input type="checkbox"/>			Date: 12/15/15
<input type="checkbox"/> NORM/Radioactive		Pricing Addendum Sent to Customer <input type="checkbox"/>			Profile Received
<input type="checkbox"/> Asbestos-Friable/Non Friable		Pricing Addendum Received from Customer <input type="checkbox"/>			Profile Reviewed/Approved
<input type="checkbox"/> Direct Landfill		Signature Added to AESOP <input type="checkbox"/>			Forward to Environmental
<input type="checkbox"/> Solidification/Evaporation		Contract in Place <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			Signature: <i>[Signature]</i>
<input checked="" type="checkbox"/> Stabilization		Shipment Mode			Environmental
<input type="checkbox"/> Neutralization		<input checked="" type="checkbox"/> Bulk <input type="checkbox"/> Box <input type="checkbox"/> Other		Ton	Date: 12/15/15
<input type="checkbox"/> Encapsulation-Micro/Macro		<input type="checkbox"/> Tanker <input type="checkbox"/> Drum <input type="checkbox"/> Totes		Cubic Yard	
<input type="checkbox"/> Storage Only/Off Site Disposal		<input type="checkbox"/> Bag <input type="checkbox"/> Labpack <input type="checkbox"/> Pallets		Drum	
<input type="checkbox"/> CESQG		Biennial Codes			Profile Received
LDR <input checked="" type="checkbox"/> 1-Time <input type="checkbox"/> Each <input type="checkbox"/> None		Form-W 301 Man-H 132 Source-G 44			Profile Reviewed/Approved
Safety		Comments: SILVER & CADMIUM AND UHC'S			Forward to Customer Service
<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		<input type="checkbox"/> Caution: HIGH/LOW PH LIQUID/SOLID.			Signature: <i>[Signature]</i>
BOO 1 RA3		<input type="checkbox"/> Caution: Oxidizer, Cover In Storage.			
FO 1 W10		Radioactive <input type="checkbox"/> Table 1a 1b <input type="checkbox"/> Table 2a 2b 2c <input type="checkbox"/> Table 3: <input type="checkbox"/> Table 4a 4b <input type="checkbox"/>		Dose Chart Needed: Y <input type="checkbox"/> N <input type="checkbox"/>	Container Type:
GO 1		Compatibility Group E			
Lab		Item No.	Description and Location of Deficiency or Question	Corrective Measures	Resolved
<input type="checkbox"/> LEL					Rad Info
<input type="checkbox"/> pH					Isotopic Ave.
<input checked="" type="checkbox"/> Flame					U238
<input checked="" type="checkbox"/> Spark					Th232
<input checked="" type="checkbox"/> Water React					Ra226
<input checked="" type="checkbox"/> Paint Filter					Ra228
<input type="checkbox"/> Free Liquids (Potentially Wet)					Pb210

ATTACHMENT
3
Land Disposal Restriction Form

US Ecology, Inc. Land Disposal Restriction Form



GENERATOR: Prime INC EPA I.D. NUMBER: IDR000205219
WASTE STREAM or PROFILE NUMBER: 30946 MANIFEST DOC. NO. 008405001 JJK LINE NO. 9a.1
WASTE IS A: ☐ WASTEWATER ☒ NON-WASTEWATER ☐ DEBRIS
NOTIFICATION FREQUENCY: ☒ ONE TIME ☐ REQUIRED WITH EACH SHIPMENT
EPA WASTE CODES (from 40 CFR 268.40) D007
UHC's (Underlying Hazardous Constituents 40 CFR 268.48)? ☐ No ☒ Yes - List: SILVER, CADMIUM,

A. ☐ Restricted Waste Meets Treatment Standards (40 CFR 268.7(a) (3))

The restricted waste identified above meets the treatment standards in 40 CFR 268.40 or Alternative LDR treatment standards for contaminated soil 40 CFR 268.49 and can be landfill disposed without further treatment. I have attached all supporting analytical data, where available.

I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR Part 268 Subpart D. I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

B. ☐ Restricted Waste Treated To Treatment Standards (40 CFR 268.7(b) (1) & 268.7 (b) (2))

The treatment residue, or extract of such residue, or the restricted waste identified above has been tested to assure that the treatment residues or extract meet all applicable treatment standards in 40 CFR 268.40 and/or performance standards in 40 CFR 268.45. I have attached all supporting analytical data, where available.

I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR Part 268 Subpart D. I believe that the information I submitted is true, accurate and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

C. ☐ Restricted Waste With Technology Based Treatment Standards (40 CFR 268.7(b) (4))

I certify under penalty of law that I personally have examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the treatment standards specified in 40 CFR 268.40, without impermissible dilution of the prohibited waste. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

D. ☐ Restricted Waste Decharacterized But Requires Treatment For UHC (40 CFR 268.9)

I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 CFR 268.40 to remove the hazardous characteristic. This decharacterized waste contains Underlying Hazardous Constituents (UHC) that require further treatment to meet the universal treatment standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

E. ☒ Restricted Waste Subject To Treatment (40 CFR 268.7(a) (2))

The restricted waste identified above must be treated to the applicable treatment standards in 40 CFR 268.40, or treated to comply with applicable prohibitions set forth in Part 268.32 or RCRA Section 3004(d). I have attached all supporting analytical data, where available.

F. ☐ Hazardous Debris Subject To Treatment (40 CFR 268.45)

This hazardous debris identified above must be treated to the alternative treatment standards in 40 CFR 268.45.

G. ☐ Restricted Waste Subject To A Variance or Extension (40 CFR 268.7(a) (4))

This restricted waste identified above is subject to a case by case exemption under 40 CFR 268.5, an exemption under 40 CFR 268.6 or a nationwide capacity variance under Subpart C of 40 CFR 268, and is not prohibited from land disposal. LDR prohibitions become effective on _____ (date) for this restricted waste. The corresponding treatment standard(s) are promulgated in 40 CFR 268.40. I have attached all supporting analytical data, where available.

H. ☐ Restricted Waste Managed In A "Lab Pack" (40 CFR 268.7(a) (9))

I certify under penalty of law that I personally have examined and am familiar with the waste and that the lab pack contains only waste that have been excluded under appendix IV to 40 CFR Part 260 and that this lab pack will be sent to a combustion facility in compliance with the alternative treatment standards for lab packs at 40 CFR 268.42(c). I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

I certify and warrant that the information that appears on this form, and appended documents, is true and correct. I have correctly indicated how my waste is to be managed in accordance with 40 CFR 268. My certification is based on personal examination of the information submitted, or is based on my inquiries of those individuals responsible for obtaining the information.

Authorized Signature

Title OPS MANAGER

Date 12-27-15

UHC list from 40 CFR Part 268.48 available upon request

ATTACHMENT

4

Hazardous Waste Manifest

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0035

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number 1 D R 0 0 0 2 0 5 2 1 8	2. Page 1 of 1	3. Emergency Response Phone (702) 386-4148	4. Manifest Tracking Number 008405001 JJK
----------------------------------	----------------------------------------------------------	--------------------------	------------------------------------------------------	-----------------------------------------------------

5. Generator's Name and Mailing Address PRIME, INC. 2740 NORTH MAYFAIR AVENUE SPRINGFIELD MO 65803	Generator's Site Address (if different than mailing address) PRIME, INC. 1-84 EASTBOUND MM 26 CALDWELL ID 83608
Generator's Phone: 8 1 2 8 6 3 - 2 4 0 0	

6. Transporter 1 Company Name H2O ENVIRONMENTAL (BOISE)	U.S. EPA ID Number HVR000080400
-------------------------------------------------------------------	-------------------------------------------

7. Transporter 2 Company Name	U.S. EPA ID Number
-------------------------------	--------------------

8. Designated Facility Name and Site Address OS ECOLOGY INC. 20400 LEMLEY ROAD GRAND VIEW MO 63824	U.S. EPA ID Number IDD073114854
Facility's Phone: 800-274-1916	

9a. HHA	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes	
		No.	Type				
X	NA3077, Hazardous waste, solid, n.o.s. (Chromium 8, P811)	001	DT	0024	Y	0007	

14. Special Handling Instructions and Additional Information 1) PROFILED 2) PROFILED 3) PROFILED 4) PROFILED	USE APPROPRIATE SAFETY EQUIPMENT IF UNDESLIVERABLE, NOTIFY H2O
------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------

15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled, packaged, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.

I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator/Officer's Printed/Typed Name CRAIG SIMMONS	Signature <i>[Signature]</i>	Month Day Year 12 29 15
----------------------------------------------------------------	---------------------------------	-----------------------------------

16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S.	Port of entry/exit: Date leaving U.S.:
---------------------------------------------------------------------------------------------------------------------	-------------------------------------------

17. Transporter Acknowledgment of Receipt of Materials		
Transporter 1 Printed/Typed Name Jim Crow	Signature <i>[Signature]</i>	Month Day Year 12 29 15
Transporter 2 Printed/Typed Name	Signature	Month Day Year

18. Discrepancy

18a. Discrepancy Indication Space Owner released pending inspection 12/29/15	<input checked="" type="checkbox"/> Quantity <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection
Actual received 20 yds. on 12/29/15 via telecom 1/5/16 etc	

18b. Alternate Facility (or Generator)	Manifest Reference Number: U.S. EPA ID Number
----------------------------------------	---------------------------------------------------------

Facility's Phone:	18c. Signature of Alternate Facility (or Generator)	Month Day Year
-------------------	-----------------------------------------------------	----------------

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)			
---------------------------------------------------------------------------------------------------------------------------------	--	--	--

1. H150	2.	3.	4.
----------------	----	----	----

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in item 18a		
Printed/Typed Name William Rodriguez	Signature <i>[Signature]</i>	Month Day Year 12 29 15

ATTACHMENT
5
US Ecology Weight Ticket

U.S.E.I.

Load #

15722911038

-15
32

Inbound 12:47 PM
Weight 20000 lb

CR

PI MX 72362

-15
32

Outbound 01:58 PM
Gross 20000 lb
Tare 24740 lb
Net 55320 lb

Weigher

Cyn Glue

Container Type

TH

Comments

U.S.E.I. .001

ATTACHMENT
6
Hazardous Waste Permit

ATTACHMENT
7
US Ecology Invoice

US Ecology Idaho, Inc.
P.O. Box 400
20400 Lemley Road
Grand View, Idaho 83624

Phone: (800) 274 1516
(208) 834 2275
Fax: (208) 834 2997
(208) 834 2919

US Ecology Idaho

a US Ecology Inc. company

INVOICE

H2O ENVIRONMENTAL
Attn: ED SAVRE
6679 SUPPLY WAY
BOISE, ID 83716-5545

Page 1 of 1

Invoice #: G48458
Invoice date: 01/08/2016
Customer ID: 020502 / H2OENVIRO

Please remit checks to:
P.O. BOX 26273
Salt Lake City, UT 84126-0273

Please wire to:
Bank: Wells Fargo Bank, N.A. San Francisco, CA
ABA: 121000248 Account #: 5130000820
Account Name: USE/Subsidiaries

Terms: 30 Days

Quantity	Unit	DESCRIPTION	Rate	Total
Generator: PRIME INC., I-84 EASTBOUND MM 25, CALDWELL, ID 83605		EPA ID: IDR000205219		
Reference #: 15122911038-008405001 JJK-1-1		Waste Stream #: 38946-0		
27.86	TON/YARD	Stabilization - RCRA Solids (D004-D011)	\$118.50	\$3,277.71
		10% Energy, Insurance and Recovery fee		\$327.77
Total				\$3,605.48

** Minimum quantity/minimum charge applied.

ATTACHMENT
8
US Ecology Stabilization
and
Field Sheet

Page 1 of 1

pH Range: >2,<12.50

Stabilization

[illegible]

I Certify the waste on this form has been disposed in the location designated

Comments:

0007

B00-NO SPECIAL EQUI F01-SAFETY GLASSES G01-LATEX EXAM GLO R03-1/2 RESP W/ YELL W10-CADMIUM

1-TIMEM, RCRA, STABILIZATION, SILVER & CADMIUM ARE UHC'S.

9L
4fL
2fe

12/29/2015

Field Sheet

Page 1 of 2

Batch: MX72362

Waste Weight: 55,320 UOM: LBS
 Start Time: 12/29/15 14:14 End Time: 12/19/15 00:00
 Processed By: JPOLLARD
 Process: Stabilization
 Bin No: _____

Current Stage: _____
 Post Density: 96.3 Ton/Cu.Yd Final pH: _____
 Sample #: L-847422
 Location: PIT 1
 Sub Location: _____

Inventory Comments: _____

Mix comments:

847422

Add silo lime mix well.
 Add ferrous mix well.
 Add flake mix well.
 Add water mix well.

Safety Code

R03 B00 G01 W10 F01

Recipe

Reagent	%	Weight (LBs)	Gallons	Actual (Lbs)	Initial
LIME	9.0 %	4,978.80		5039	RS
FER.SULF-DRY	2.0 %	1,106.40		1180	
SODIUM SULFIDE	4.0 %	2,212.80	4165	2255	✓
WATER	0.0 %	0.00	500.00	4165	
CLAY				5000	OK
Net Reagent Wt. :		8,298.00			
Total Wt. :		63,618.00		72,959	OK

METALS
PASSInventory Items

Reference #	Waste Stream #	Waste Stream Name	Generator #	Qty.	Container Type	Truck #
51229-1038-008405001 JJK-1-1	38946-0	SOIL CONTAMINATED WITH CHROMIUM	PRIME INC.	1	DUMP TRUCK	32-TIM

Treatment meets mix design specifications and permit requirements:

Signature: [Signature]Date: 12-29-15

Field SheetBatch: **MX72362**

certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the treatment standards specified in 40 CFR 268.40 without impermissible dilution of the prohibited waste. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

Approved for Disposal by: Dana HarlowDate: 1/4/16Time: 9:59**Disposal Coordinates**

No. of Items	Type of Item	SX	LIQ	Size of Item H X W X D	Container # or Item # Visual Inspection / Comments	F/T Initials	Lab Initials	Weight LBs	Cubic Feet	90% Full	Gen No	Cell	Section X1	Section X2	Ft.Mark Y1	Ft.Mark Y2	Tier Z1	Tier Z2	Disposal Date	Signature

I Certify the waste on this form has been disposed in the location designated

Comments: _____

**United States Environmental Protection Agency
Criminal Investigation Division
Investigative Activity Report**

Case Number:

1003-0101

Case Title:

Prime, Inc

Subject of Report:

4-27-16 Receipt of B&W Records

Reporting Official and Date:

Darin J. Mugleston

Resident Agent in Charge

23-MAY-2016, Signed by Darin J. Mugleston

Reporting Office:

Boise, ID, Resident Office

Activity Date:

May 20, 2016

Approving Official and Date:

Edward W. Owens

Assistant Special Agent in Charge

23-MAY-2016, Approved by Edward W. Owens

Assistant Special Agent in Charge

SYNOPSIS

The U.S. Department of Transportation – Office of Inspector General (DOT-OIG)'s Memorandum of Activity (MOA) for the receipt of records from Rick Lee, Manager, B&W Wrecking Services (B&W) is attached.

DETAILS

On April 27, 2016, Rick Lee, Manager, B&W, provided documents to Special Agent [REDACTED] DOT-OIG. On May 20, 2016, Reporting Agent received DOT-OIG's MOA on the receipt of the documents, which is attached.

ATTACHMENT

DOT-OIGs MOA Receipt of BWS Records, dated 04_27_16

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EPA CID Case No. 1003-0101: 1084

Memorandum of Activity

Case Number: C16H0010903	Reporting Office: JRI-9 Seattle	Type of Activity: Document Review
Date of Activity: 04/27/2016	Date Report Drafted: 04/27/2016	Location of Activity:
Subject of Activity: LEE, RICK	Activity Conducted By (Name(s)): Colby Britton	Signature: C B

On April 27, 2016, Special Agent Colby Britton, U.S. Department of Transportation, Office of Inspector General, received an email from Rick Lee, B&W Wrecker Service (B&W). The email contained the following billing records related to the clean-up of a semi-trailer that caught fire carrying nearly 38,000 pounds of UN1263 paint:

--Corder invoice #17342 for \$1,070, and record of B&W payment to Corder.

--Idaho Waste Systems invoice for \$807.30, and record of B&W payment to Idaho Waste Systems.

--B&W invoice #65551 for \$11,250 billed to Prime Inc.

ATTACHMENT(S):

Email from Rick Lee

Reviewed By (Initials): W S

Date: 04/28/2016

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From: [Rick Lee](#)
To: [REDACTED]
Subject: invoices attached
Date: Wednesday, April 27, 2016 1:43:07 PM
Attachments: [EPA INVOICES APRIL 27 2016.pdf](#)

Invoice

Corder, LLC
357 SE Corder Dr.
Mountain Home, ID 83647

Tim Corder Sr., Owner
Jake Corder, Safety Manager
Mike Bohling, Operations Manager
EIN 20-1951963
208-587-7559

Date	Invoice #
9/29/15	17342

Bill To

R & W Wrecker Service
20 S. Garden
Boise, ID 83705

Terms	Due Date
Net 20	10/19/15

Date	Service	Description	Quantity	Rate	Amount
		PO #Haz paint brend Primc truck			
	Rental	Trailer rent		250.00	250.00
	Rental	Dump Trailer		400.00	400.00
	Freight	Truck		250.00	250.00
	Labor	(David)		120.00	120.00
	Misc.	Clothes replacement		50.00	50.00
		Idaho State Sales Tax		6.00%	0.00
<p><i>Accident I-84</i> <i>9-27-15</i> <i>Invoice \$6555</i></p>					

Thank you for business, we appreciate it!

Total \$1,070.00

Please make all checks payable to **Corder, LLC**

PLEASE NOTE:

Finance charges will accrue at the rate of 21% (\$15 minimum) on all past due invoices.
Your prompt payment is always appreciated!

EPA CID Case No. 1003-0101: 1087

B & W WRECKER SERVICE

12414

CORDER LLC*

Date	Type	Reference
9/30/2015	Bill	

Original Amt.
1,070.00

Balance Due
1,070.00

9/30/2015
Discount
Check Amount

Payment
1,070.00
1,070.00

Wells Fargo Checking

1,070.00



Rev. 2/14

10256/10256 (5/15) 573954



10/20/2015 03:51PM 2087962729

IDAHO WASTE SYSTEMS
PO BOX 1386
MOUNTAIN HOME, ID 83647

000000 cash

IDAHO WASTE SYSTEMS

PAGE 01/01
WEIGHMASTER

02	168087				Debi
DATE IN	DATE OUT	TIME IN	TIME OUT	VEHICLE	ROLL OFF
09/28/15	09/28/15	12:55	13:04		
REFERENCE		ORIGIN			
B&W					

Manual Gross Wt. 76800 LB
Scale 1 Tare Wt. 40920 LB
Net Weight 35880 LB

Inbound - Cash ticket

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	FEE	TOTAL
17.94	TON	liquids	45.00	807.30	0.00	807.30
<div style="position: relative; height: 100px;"> 343-2541 fick </div>						

This is to certify that this load
does not contain any hazardous material.
Load screened at site 2 by: (when applicable)
208-796-2727 Office number

343-
6247

NET AMOUNT
807.30
TENDERED
807.30
CHANGE
0.00
CHECK NO.

SIGNATURE

Needs paid.

B & W WRECKER SERVICE

12499

IDAHO WASTE SYSTEM
Date 10/27/2015 Type Bill Reference

Original Amt.
807.30

Balance Due
807.30

10/30/2015
Discount
Check Amount

Payment
807.30
807.30

Wells Fargo Checking

807.30

Rev. 2/14

EPA CID Case No. 1003-0101-1089 (10/15/2015) 678954

B&W Wrecker Service
20 S Garden
Boise, Idaho 83705

Date: 9/27/2015

Call # 2878

Invoice # 65551

Company Name	Year Make and Model of Truck	Owner /Company Contact For Trailer	Year Make and Model of Trailer
Prime Inc			
Contact Name	Truck Number	Contact Name	Trailer Number
Dave Oheim	651146		143320
Address	Vin Number	Address	Lic #
City State Zip Code	Lic	City State Zip Code	Insurance Company Name
Phone	Insurance Company Name	Phone	Insurance Contact Person
417-521-3865			
Cell Phone	Insurance Contact Person	Cell Phone	Phone Number
417-848-7448			
E-Mail Address	Phone Number	E-Mail Address	Cell Phone Number
dhiem@promeinc.com			
Driver's Name	Cell Phone Number	Driver's Phone Number	E-Mail Address
Accident Site		Holding Site	Claim #
I-84 MM 114		B&W Mtn Home	
Hours	Number of Hours	Cost Per Hour	Total
Unit 3	11.5	\$200.00	2,300.00
Unit 123	11.5	\$200.00	2,300.00
Unit side dump	11.5	\$200.00	2,300.00
Crane	11.5	\$0.00	2,195.00
Service Truck	0	\$0.00	
Traffic Control	0		
Extra Labor	12	\$65.00	780.00
Disposal Labor	0	\$0.00	-
Load Swap			-
Reload	2	\$175.00	350.00
Misc			
Flat Fee			-
Air Bags	0	\$0.00	-
Disposal Fee's	1	\$550.00	550.00
Cones	10	\$10.00	100.00
Traffic Arrow	0	\$0.00	-
Storage Days/Rental Days	Number of Days	Cost Per Day	
Truck			
Trailer	5	\$75.00	375.00
Refer Rental			-
Dry Van Rental			-
		Total	11,250.00

Sandy
Dorson
Rick

**United States Environmental Protection Agency
Criminal Investigation Division
Investigative Activity Report**

Case Number:

1003-0101

Case Title:

Prime, Inc

Subject of Report:

EPA Hazardous Waste Identification Number Inquiry by IDEQ

Reporting Office:

Boise, ID, Resident Office

Activity Date:

July 6, 2016

Reporting Official and Date:

Darin J. Mugleston

Resident Agent in Charge

06-JUL-2016, Signed by Darin J. Mugleston

Approving Official and Date:

Edward W. Owens

Assistant Special Agent in Charge

08-JUL-2016, Approved by Edward W. Owens

Assistant Special Agent in Charge

SYNOPSIS

On July 6, 2016, Rene Anderson, Hazardous Waste Analyst Data Manager, Waste Management and Remediation Division, Idaho Department of Environmental Quality (IDEQ), was contacted. Anderson said IDEQ never received an EPA Hazardous Waste Generator Identification Number (EPA ID number) application or issued an EPA ID number for the initial paint waste generated on September 27, 2015.

DETAILS

On July 6, 2016, Rene Anderson, Hazardous Waste Analyst Data Manager, Waste Management and Remediation Division, Idaho Department of Environmental Quality (IDEQ), was contacted by Reporting Agent. Anderson was contacted regarding her records inquiry to determine if there was an EPA ID number issued for the September 27, 2015, paint-related waste incident from a semi-trailer fire operated by Prime, Inc. (Prime), on Interstate 84, at mile post 115, near Glens Ferry, ID. Anderson said the following information:

After conducting an inquiry, IDEQ never received an EPA ID application or issued an EPA ID number for the initial paint waste generated on September 27, 2015. Anderson advised Prime should have applied and been issued an EPA ID number for the September 27, 2015 waste generation.

On December 7, 2015, IDEQ received an application from Prime for an EPA ID number for the excavated soil from the above paint waste incident, which was disposed at US Ecology, Grandview, ID. IDEQ issued an EPA ID number and a letter sent to Prime on December 10, 2015.

IDEQ has no records that B&W Towing or Wrecker applied for an EPA ID number.

Anderson said Brett's Towing, dba Lincoln Environmental Services, located at 3160 Reeves Avenue, Ogden, UT, has an EPA ID number as an active Hazardous Waste Transporter. The number is UTR000006783, which was issued in 2001.

Anderson advised if there was hazardous waste generated in Idaho and then transported to Utah, there needs to be a unique EPA ID number for the generated waste. Anderson reiterated there are no records of an EPA ID number for the questioned paint waste.

Anderson provided no further information.

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EPA CID Case No. 1003-0101: 1111

**United States Environmental Protection Agency
Criminal Investigation Division
Investigative Activity Report**

Case Number:

1003-0101

Case Title:

Prime, Inc

Subject of Report:

Interview of Brett Baur and Steve Marrs, Bretts Towing

Reporting Office:

Boise, ID, Resident Office

Activity Date:

August 1, 2016

Reporting Official and Date:

Darin J. Mugleston

Resident Agent in Charge

04-AUG-2016, Signed by Darin J. Mugleston

Approving Official and Date:

Jeanne Proctor

Special Agent in Charge

08-AUG-2016, Approved by Edward W. Owens

Assistant Special Agent in Charge

SYNOPSIS

On August 1, 2016, Brett Baur, Owner, and Steve Marrs, Office Manager, Brett's Towing, Ogden, Utah, confirmed they transported a burnt trailer from Idaho to Prime, Inc.'s facility in Salt Lake City, UT. Baur and Marrs didn't know if the burnt trailer contained drums of paint waste.

DETAILS

On August 1, 2016, at approximately 4:15 p.m., Brett Baur, Owner, and Steve Marrs, Office Manager, Brett's Towing, 3160 Reeves Avenue, Ogden, Utah, were interviewed at their employment by Special Agent (SA) Darin Mugleston, EPA-CID, and SA [REDACTED] U.S. Department of Transportation – Office of Inspector General (DOT-OIG). Baur and Marrs were interviewed regarding the allegations Brett's Towing transported Prime's burnt trailer with alleged drums of paint waste from Idaho to Utah.

SA [REDACTED] and SA Mugleston introduced themselves and displayed their credentials to Baur and Marrs.

After explaining the purpose of the interview, Marrs said he was called by someone from Prime's "break down" department to transport a burnt trailer in Idaho to Prime's facility in Salt Lake City, UT.

Marrs does not know who called him from Prime. Marrs advised he deals with different people from Prime, not just one person. Marrs only knows first names of the individuals from Prime. According to Marrs, he only deals with people from Prime's Springfield, MO, facility. Marrs never deals with Prime's Salt Lake City facility.

Baur informed that Brett's Towing does a lot of business with Prime.

When Prime called with the above request, Marrs was given a reference number and the contact number for Sandy from B&W Wrecking Services. Marrs never spoke with Sandy before or after this incident.

Marrs claimed he called Sandy from B&W to get the details of the trailer's location and what kind of equipment was needed to transport the burnt trailer. During the conversation with Sandy, Marrs was never told there was paint material on the trailer. Marrs recalled talking with Sandy about B&W helping lift the trailer onto Brett's Towing flatbed trailer.

According to Baur and Marrs, Prime did not tell Brett's Towing if there was any paint material on the trailer. Baur and Marrs did not know if the trailer had any drums. Baur and Marrs both said they assumed the trailer was burned up.

Marrs said Brett's Towing's truck driver, Cody Spencer, was the driver who transported the trailer from

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EPA CID Case No. 1003-0101: 1128

**United States Environmental Protection Agency
Criminal Investigation Division
Investigative Activity Report**

Case Number:

1003-0101

Idaho directly to Prime's facility in Salt Lake City, UT. Spencer did not tell neither Baur nor Marrs what was on the load. Marrs indicated Spencer is no longer an employee of Brett's Towing, because he is working in the oil fields.

Baur said if they knew there was hazardous paint on the trailer, they would have secured the trailer to obtain the appropriate documentation, i.e., placards, MSDS sheets, etc. Baur said Brett's Towing normally doesn't do hazardous material transportation. However, Brett's Towing does have hazardous material endorsed drivers to transport wrecked vehicles.

Baur doesn't think the truck driver, Spencer, took any photos of the trailer.

Baur and Marrs claimed they never saw the trailer, because the driver went directly to Prime's Salt Lake City facility.

At the end of the interview, investigating agents requested documents from Brett's Towing. Baur said he will provide requested documents to investigating agents.

The interview was concluded at approximately 5:00 p.m.

Document on Loan for Enforcement Sensitive EPA CID

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EPA CID Case No. 1003-0101: 1129

**United States Environmental Protection Agency
Criminal Investigation Division
Investigative Activity Report**

Case Number:

1003-0101

Case Title:

Prime, Inc

Subject of Report:

Consent Search to Sample Drums at Prime, Salt Lake City, Utah

Reporting Office:

Boise, ID, Resident Office

Activity Date:

August 24, 2016

Reporting Official and Date:

Darin J. Mugleston

Resident Agent in Charge

29-AUG-2016, Signed by: Darin J. Mugleston

Approving Official and Date:

Jeanne Proctor

Special Agent in Charge

29-AUG-2016, Approved by: Jeanne Proctor

Special Agent in Charge

SYNOPSIS

On August 24, 2016, Consent to Search was conducted by EPA-CID and EPA's National Enforcement Investigations Center (NEIC) to inspect and sample drums of paint waste at Prime, Inc. (Prime)'s facility in Salt Lake City, Utah.

DETAILS

On August 24, 2016, at approximately 9:00 a.m., a Consent to Search was conducted at Prime, 3720 W. 800 S, Salt Lake City, Utah, by EPA and NEIC. Consent was authorized by Attorney Peter Christensen, Law Firm of Strong and Hanni, who represents Prime. The Consent to Search permitted EPA-CID and its representative, NEIC, to inspect and sample drums of paint waste associated with the September 27, 2015, fire incident involving Prime's semi-trailer that was transported from Mountain Home, Idaho to Prime's Salt Lake City facility. A copy of the Consent to Search is attached.

The following EPA personnel participated on the consent search: Special Agent (SA) Darin Mugleston, EPA-CID; SA [REDACTED] EPA-CID; John Fowler, National Technical Coordinator (NTC), NEIC; and Jake Stewart, NTC, NEIC.

The following Prime representatives were present at times or throughout the consent search: Attorney Peter Christensen, Law Firm of Strong and Hanni; Attorney Marshall Hendrickson, Law Firm of Strong and Hanni; Brian Singleton, Operations Manager, Prime, Salt Lake City Facility; Glen Jones, Account Manager, H2O Environmental (H2O), Salt Lake City, UT; and Tim Loving, Project Manager, H2O, Salt Lake City, UT. Prime also had several employees who operated the forklift to remove and stage the drums off the trailer.

Prior to removing the drums off the trailer, SA Mugleston took digital photos of the trailer and drums. SA Mugleston downloaded the digital images 1 through 7 from his Canon Power Shot A1100 IS camera and burned the images to a Compact Disk, on August 26, 2016. The digital images will be kept in the Boise Resident Office. A copy of the Chain of Custody for the CD is attached as a place holder to this report. A portable document format file containing the photo log, sketch, and photos are attached.

During the consent search, NEIC labeled and inspected each drum. NEIC collected samples from eight (8) drums. A detailed sampling report will be provided by NEIC.

NEIC provided split samples to H2O with a Chain of Custody. The Chain of Custody will be included in NEIC's final report.

At the conclusion of the consent search, SA Mugleston conducted an exit briefing with Attorney

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EPA CID Case No. 1003-0101: 1170

**United States Environmental Protection Agency
Criminal Investigation Division
Investigative Activity Report**

Case Number:

1003-0101

Marshall Hendrickson and Brian Singleton, Prime.

During the exit briefing, SA Mugleston provided a receipt for the collection of the samples to Brian Singleton, Prime, which is attached.

The Consent Search was concluded at approximately 4:00 p.m.

ATTACHMENT

Consent to Search Form, dated 8_24_16

Chain of Custody Consent Search Photos, dated 8 24 16

PDF Containing Photo Log, Sketch, Photos, dated 8_24_16

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EPA CID Case No. 1003-0101: 1171



EPA CID Case No. 1003-0101: 1172



U.S. Environmental Protection Agency
Office of Criminal Enforcement, Forensics & Training

CONSENT TO SEARCH

I HAVE BEEN ASKED TO PERMIT SPECIAL AGENTS OF THE ENVIRONMENTAL PROTECTION AGENCY AND THEIR REPRESENTATIVES TO SEARCH:

Prime, Inc.
3720 W. 800 S
Salt Lake City, Utah

Where they may observe, inspect, and analyze the physical remnants and contents of the trailer associated with an incident occurring on or about September 27, 2015 involving Bill of Lading No. 0811B65356/ Load ID No. CAP00709220 that was transported from Mountain Home, Idaho to Salt Lake City, Utah and is currently stored at the Prime facility.

Agents and their representatives may review processes, take photographs & measurements, collect samples and catalogue all items associated with the trailer from the incident now stored at the Prime facility identified above. Additionally, any samples taken or collected from the trailer or its contents will be sent to the Environmental Protection Agency National Enforcement Investigations Center for further testing, analysis, and characterization.

This consent may be withdrawn in writing at any time by notifying an EPA Special Agent present at the search.

I HAVE NOT BEEN THREATENED, NOR FORCED IN ANY WAY.
I FREELY CONSENT TO THIS SEARCH.

Peter H. Christensen
Signature for Facility Date

Darin J. Mylchreest 8/24/16
Signature for EPA Date

[Signature] 2016 August 24
Witness Date

PRIME, INC
Salt Lake City, UT

1003-0101

8/24/16

Consent Search



EPA ID Case No. 1003-0101-1177





EPA CID Case No. 1003-Q-101 1179



EPA CJD Case No. 1003-0-107 1160





**United States Environmental Protection Agency
Criminal Investigation Division
Investigative Activity Report**

Case Number:

1003-0101

Case Title:

Prime, Inc

Subject of Report:

6-28-16 Transcript of Recorded Interview of Tim Corder, CWE

Reporting Office:

Boise, ID, Resident Office

Activity Date:

November 1, 2016

Reporting Official and Date:

Darin J. Mugleston

Resident Agent in Charge

02-NOV-2016, Signed by Darin J. Mugleston

Approving Official and Date:

Jeanne Proctor

Special Agent in Charge

02-NOV-2016, Approved by Edward W. Owens

Assistant Special Agent in Charge

SYNOPSIS

The U.S. Department of Transportation – Office of Inspector General (DOT-OIG) provided the transcript of the June 28, 2016, recorded interview of Tim Corder, part-owner of Corder White Excavating (CWE).

DETAILS

On November 1, 2016, DOT-OIG provided Reporting Agent the transcript for the June 28, 2016, recorded interview of Tim Corder, part-owner, CWE, which was conducted by Special Agent (SA) Darin Mugleston, EPA-CID, and SA [REDACTED] DOT-OIG. The Corder transcript is attached.

ATTACHMENT

Transcript of Tim Corder Interview, dated 6_28_16

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EPA CID Case No. 1003-0101: 1324

Capital Reporting Company

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UNITED STATES DEPARTMENT OF TRANSPORTATION

OFFICE OF INSPECTOR GENERAL

Sworn Interview of Tim Corder, Jr.

Case Number I16H0010903

On June 28, 2016

At _____

Interview Conducted by

Special Agent [REDACTED] DOT OIG

Special Agent Darin Mugleston, EPA CID

Zack Parlin, Sergeant

Capital Reporting Company

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26 P R O C E E D I N G S

27 MR. MUGLESTON: We always record our interviews.

28 MR. CORDER: Well, I think before you -- I mean,
29 you're going to record it again. That's fine. That's your --

30 MR. MUGLESTON: Yeah.

31 MR. CORDER: But you guys need to remember that when
32 you're asking all these questions, this was clear back in
33 February, and you guys now have all the picture and all the
34 puzzle.

35 MR. MUGLESTON: Close.

36 MR. CORDER: And I'm just one little piece of it.
37 So it was no big deal to me what we did. It wasn't anything
38 out of the ordinary. So I don't know that I'm going to have
39 all exactly what you want or how you want it.

40 MR. MUGLESTON: Well, that's -- you're still part of
41 the puzzle.

42 MR. CORDER: Right.

43 MR. MUGLESTON: We're still trying to figure it all
44 out, Tim. And so, don't worry about that. We're -- we -- in
45 fact, [REDACTED] hasn't been back since we were out there in
46 February. So that's why we're back.

47 MR. CORDER: Yeah, I saw [REDACTED] over here, he said --

48 MR. [REDACTED] Oh, I was just asking what you were
49 building, but it looks like a trailer of some type.

50 MR. CORDER: Oh, my wife is not quite in charge, but

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3

51 almost in charge. I don't know if you've heard of that
52 Mountain Home Music Festival that was up by Tacoma. She's in
53 charge of the garbage part of it or quite a bit. The 4-H
54 club, local 4-H club had enough people to volunteer to do the
55 garbage. And last year, for volunteering on the first year,
56 the club received \$10,000. So of course I got volunteered to
57 assist in the making it a little easier part of it.

58 MR. [REDACTED] Yeah.

59 MR. CORDER: So --

60 MR. [REDACTED] Or been told, as I like to call it.

61 MR. CORDER: Well, we put 190 miles on two different
62 motorcycles inside the venue where the singers are, just
63 circling.

64 MR. [REDACTED] Wow.

65 MR. CORDER: Picking up trash, and then we remove it
66 to a bigger trailer and then it goes out to the dumpster, so.

67 MR. MUGLESTON: You said near Tacoma? You're
68 talking about --

69 MR. CORDER: Well, the first year was by Tacoma. I
70 think last year it was --

71 MR. MUGLESTON: Out in Washington?

72 MR. CORDER: Yeah, it was over there. This year,
73 it's here. Last year and the next -- it goes five-year cycles
74 and they're Mountain Home up here in the hills for the next
75 four more years.

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76 MR. MUGLESTON: Yeah.

77 MR. CORDER: And they told us there'd be no money
78 the first year for the volunteers. And the trash went so well
79 and the whole project went so well that they gave us \$10,000
80 for the 4-H, which is -- this club, they pay two to three
81 grand a year to have the fair. And they have to fundraise.
82 So it's a big deal. They're saying this next year we might
83 get 20 out of it.

84 MR. MUGLESTON: Really?

85 MR. CORDER: And they'd like my wife to follow them
86 around because they do them all summer in different parts of
87 the country --

88 MR. [REDACTED] Are you making -- you're making --

89 MR. CORDER: Yeah, I just started the other night
90 and I got that far, and I haven't gotten any further yet.

91 MR. [REDACTED] That's cool.

92 MR. CORDER: So, it's upside-down, obviously, but --

93 MR. MUGLESTON: Tim, just for the record, I just
94 want to say that today is June the 28th, correct --

95 MR. CORDER: Yeah.

96 MR. MUGLESTON: Or 27th?

97 MR. [REDACTED] 28th.

98 MR. [REDACTED] Yeah.

99 MR. MUGLESTON: 28th, and Sergeant Zack Parlin and
100 [REDACTED] [REDACTED] and myself are with Tim Corder. Is this your

Capital Reporting Company

5

101 office or I mean, your --

102 MR. CORDER: Just a shop. Just a shop.

103 MR. MUGLESTON: Okay, and we're going to just
104 discuss a little bit further on our investigation. I
105 appreciate what you said, Tim, about, you know, just a small
106 piece of the puzzle, and that is absolutely correct. And
107 we're hoping that as we -- and hopefully this will be the last
108 time that we have to talk to you.

109 MR. CORDER: Good

110 MR. MUGLESTON: But I cannot stress enough that this
111 is the time to be truthful with us, and that the best of your
112 recollection the stuff that we talk about that you can
113 remember. And then, we'll just put this piece of the puzzle
114 together and hopefully we'll figure out what happened at the
115 end. So [REDACTED] you want to --

116 MR. [REDACTED] Start?

117 MR. MUGLESTON: -- ask your -- ask your questions?

118 WHEREUPON,

119 TIM CORDER

120 was called for questioning, and after having first given
121 consent, was examined and testified as follows:

122 EXAMINATION

123 BY MR. [REDACTED]

124 Q Yeah. All right. So bear with me. I've been up
125 since 3:00 in the morning here, catching the first flight out.

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126 All right. So I guess we're going to talk about two
127 incidents. There was the transportation, or the movement of
128 this material from the yard here to Idaho Waste Systems.

129 A Okay.

130 Q And then there's the movement of material from here
131 to U.S. Ecology.

132 A Okay.

133 Q And so, we already talked to you about those before.
134 But let's just go through some of that stuff one more time,
135 just to make sure we understand it and I also want to just get
136 some follow-up questions about what you told us before. So
137 I'd just kind of like -- just for starters, this is the warm-
138 up, easy stuff. When the material was here, what information
139 did you have about what that material was?

140 A The first time?

141 Q The first time when it was in your yard before you
142 drove it to Idaho Waste Systems? What information did you
143 have about what that material was?

144 A I don't remember that I knew anything other than it
145 was a trailer load of a wreck.

146 Q Trailer, okay. And is the wreck that you're talking
147 about the wreck that occurred on September 27th?

148 A Yeah. I was out of town. They called for a
149 trailer. We delivered a trailer. I was under the assumption,
150 like I told you before, that we were just dropping a trailer.

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151 Apparently the trailer showed back up here. It was, what,
152 Saturday I think was the wreck?

153 MR. MUGLESTON: Yeah, Sunday.

154 BY MR. [REDACTED]

155 A Saturday, Sunday, something.

156 Q Yeah.

157 A Or Saturday maybe and they cleaned it Sunday. I
158 don't know. Anyway, so the trailer's here in the yard and I
159 need the trailer Monday morning.

160 Q For a different job?

161 A For a different job.

162 Q Okay.

163 A So that's where it was. All I know is there was a
164 load of junk that had to go to Idaho Waste is what I was told,
165 which is Simco Road. So I hooked onto it, again, Monday
166 morning and took it to Idaho Waste on my way to the other job.

167 Q Okay.

168 A I didn't pay for the disposal. I didn't arrange the
169 disposal, nothing.

170 Q Right.

171 A All I did was grab the trailer that I sent out
172 there, that's pretty common for us to send a trailer to a
173 wreck for this company, and took it to the landfill that they
174 told me to take it to.

175 Q Okay.

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176 A It was tarped. When I got here, I unrolled the
177 tarp. It's a side dump, which is like a big bathtub.

178 Q So Sunday -- you came here Sunday and it was tarped?

179 A Correct, as far as I remember.

180 Q Well, okay. That's what -- if the accident -- the
181 accident was Sunday, is that correct?

182 MR. MUGLESTON: Yes.

183 BY MR. [REDACTED]

184 Q So was it Monday, then, that you came?

185 A It would have been Monday morning.

186 Q Monday morning you come.

187 A Early, early.

188 Q Well, I guess when was the first time you came and
189 saw the side dump? Was it Sunday or Monday?

190 A Monday morning.

191 Q Monday morning, okay. And when you arrived Monday
192 morning here, you said it was tarped?

193 A Yeah, it's got an automatic tarp thing at the top.

194 Q Okay. All right. So, and did you know that the --
195 what did you know about the debris? Like where the debris
196 came from? Did you --

197 A Just the interstate, down by Hammett somewhere.

198 Q From the accident?

199 A From the accident.

200 Q Okay, and did you know that it was paint?

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201 A At that time, no.

202 Q Okay, at that time. So we're talking about before
203 you drove it, what you knew.

204 A Yeah. I mean, all I knew was, like I said, I was
205 called and said, can we borrow your trailer.

206 Q Okay, and that was Sunday when --

207 A Or whenever, Saturday, Sunday, prior to Monday.

208 Q Okay, and you got called from who?

209 A The wrecker company. I don't remember which
210 individual for sure.

211 Q B&W Wrecker?

212 A Yeah, B&W.

213 Q So it wasn't your own dispatch that called you? It
214 was --

215 A Originally, the dispatch talked to me, yes, about
216 the -- can they -- can B&W have the trailer.

217 Q Okay.

218 A And then, I think when they were headed to the
219 accident or something -- I don't remember exactly how that
220 was. Someone from there called and said, hey, are we going to
221 be able to get that trailer. And I said, yeah, I talked to
222 dispatch and told them to send it.

223 Q Okay. Okay. So then, it's here Monday and you
224 arrive and you don't know what's in it. But you know that --
225 you know that what's in it is from the accident.

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226 A Correct.

227 Q But you don't know, I guess, what that is?

228 A I didn't care at this point because it was from an
229 accident from a wrecker company that we use all the time, told
230 to take it to a landfill that we go to regularly.

231 Q Yeah.

232 A So why would I question any of that? Maybe I should
233 have. But --

234 Q Okay. Did -- so what did -- did anybody give you
235 any information about -- before you drove it to the landfill,
236 about the material?

237 A No, I don't -- I don't remember hearing anything
238 about what it was before I took it away. In fact, I think I
239 had a conversation with Deb and she said, what is it. And I
240 said, it's the stuff that B&W called you about whatever. It's
241 -- she said take it up on the --

242 Q A conversation with you said Deb?

243 A Yeah.

244 Q Okay.

245 A She runs -- excuse me. She runs the landfill scale.

246 Q Okay.

247 A So I remember something. She said, what is this,
248 meaning is it mine because we deliver our own stuff and their
249 demolition or whatever. She said it's not ours. This is that
250 B&W wreck over there or whatever. She said, get it up, take

251 it up on the hill.

252 Q Okay, and so how did you know then to take it to
253 Idaho Waste Systems?

254 A B&W said take it there.

255 Q All right. So you had a conversation with B&W. And
256 what did B&W tell you about what it was?

257 A They said it was the wreck from Hammett.

258 Q They just called it the wreck?

259 A As far as I remember.

260 Q To the best of your recollection?

261 A I don't -- I don't remember any specifics because I
262 was in a hurry and I just said where do you want this stuff.
263 And they said it's got to go to Idaho Waste.

264 Q And what -- then what did you know about the wreck,
265 I guess?

266 A Nothing.

267 Q I mean, what did you know about --

268 A I was out of town. All I knew is there was a truck
269 wreck at that time.

270 Q Okay. So the person you spoke to at B&W then, did
271 they tell you more specifically what the contents was?

272 A It was just wreck debris, as far as I remember, man.

273 Q Did they tell you it was paint?

274 A I don't remember the word paint until later.

275 Q Okay.

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276 A And it wasn't paint that I heard. It was burned up
277 paint containers and stuff. So --

278 Q Right.

279 A -- you know, to me, later -- I mean, now we're
280 skipping ahead -- but later, when somebody says it's a bunch
281 of burned up paint containers, I'm thinking there's nothing
282 left but containers.

283 Q Right, right.

284 A Maybe some melted rubber, plastic or whatever
285 they're -- you know, totes or whatever it is. It's all melted
286 up and --

287 Q Okay.

288 A I'm not -- I mean, you have a fire that they can't
289 put out I wouldn't think -- later I find out -- I wouldn't
290 think that paint would be left, whatever. So at that time, I
291 didn't know it was anything other than just some debris left
292 over from the wreck.

293 Q Okay, and did --

294 [Phone rings]

295 BY MR. [REDACTED]

296 Q Feel free to get whatever you need to get.

297 A No, it's okay.

298 Q I guess we should say too, as we said in the
299 previous interview, this is totally voluntary. You don't have
300 to answer any questions. You can ask us to leave. You can

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301 leave, whatever. You know, you understand that? This is
302 totally voluntary on your part?

303 A Yes.

304 Q So did any -- did B&W give you any documentation
305 about what the --

306 A No.

307 Q Okay. So you had no documentation about what was --
308 what the material was. As far as you recall, they told you
309 that it was just wreckage material. Did they tell you that it
310 -- did they say anything about whether or not it was hazmat?

311 A No. There was no conversation.

312 Q No conversation, okay. So then I'll ask it in a yes
313 or no way, I guess. Did they tell you that it was hazmat?

314 A No.

315 Q Did they tell you that it was not hazmat?

316 A No.

317 Q Okay. Did you ask what it was?

318 A No. It's going to Idaho Waste.

319 Q And then you didn't ask anybody what it was, or you
320 didn't ask the person at B&W that told you to take it there?

321 A I didn't care what it was because it was going to
322 Idaho Waste. You get what I'm saying?

323 Q No, I understand. I --

324 A It was told -- that's not a -- that's a nonhazardous
325 landfill. The company that's in charge of fixing -- cleaning

326 up the wreck hires my trailer to go out there and load
327 something and says take it to Idaho Waste. Idaho Waste, I get
328 out there, they're accepting it. So assuming that there's
329 some conversation between those people --

330 Q Okay, and that's -- you know, these are -- I'm not
331 judging the answer --

332 A I don't need a manifest to haul garbage out to a
333 landfill. That's what I considered.

334 Q Okay. So Monday, you come here. It's tarped. B&W
335 -- somebody at B&W tells you to take it to the dump. They
336 tell you that it's material from the wreckage. They didn't
337 give you any documentation about what it was. No bill of
338 lading. No material safety data sheets or anything like that.
339 The person at B&W didn't tell you that it was hazardous. They
340 didn't tell you that it wasn't hazardous. You guys didn't
341 talk about whether or not it was hazardous. You didn't ask
342 questions about whether or not it was hazardous, or any -- did
343 you ask any follow-up questions about just what it was?

344 A Not that I remember.

345 Q And you know, you believed that they're telling you
346 to take it to a facility that does not take hazardous
347 material. So why would you ask whether or not it's hazardous
348 material. Is that right?

349 A Correct.

350 Q All right. So then you drove it to the dump and

351 dumped it. And what you said in your last interview is you
352 didn't see -- when you got there Monday morning, it was tarped
353 and you didn't see it when it was dumped because they -- I
354 don't know, the tarp unrolls and then it gets pushed out to
355 the side.

356 A It's an auto-tarp. And I backed up to my passenger
357 side, dumped it. I was on the phone. It was somebody else
358 worried about something else. Just dumped it and left.

359 Q Okay.

360 A I don't have to see it the way that trailer dumps.

361 Q Okay. So some of the people that work at B&W,
362 there's Rick Lee. Do you know these names, the people that
363 work at B&W?

364 A Kind of.

365 Q Okay. There's Rick Lee, a guy named Daren Bice,
366 Sandy Derick.

367 A I know Sandy.

368 Q You know Sandy? Okay. Was it Sandy that called you
369 and told you to take it to Idaho Waste Systems?

370 A I think. I think that was the conversation. I
371 don't remember exactly who it was.

372 Q You don't remember exactly who it was? Okay. But
373 you think it might have been Sandy?

374 A Probably was.

375 Q Probably was? Okay.

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376 MR. [REDACTED] Okay. Do you have any follow-up
377 questions about the first incident?

378 MR. MUGLESTON: Mm-hmm. [Negative.]

379 BY MR. [REDACTED]

380 Q Okay. Then the second incident, and thank you, I
381 mean, that helps. That's basically what did we talk to you
382 last time, about an hour-and-a-half or something like that.

383 A Well, you've kind of got --

384 Q That basically covers it in more concise -- more
385 concisely.

386 A You've kind of got to understand. Like you said,
387 when that all went down, you guys are looking at it now all
388 together. I mean, looking at something went wrong and you
389 guys are trying to put it all back together. Then, it was
390 just a wreck on the interstate. It was done by people you
391 trust, you know? And it just -- maybe I should have gave it
392 some thought, but I didn't, you know? We do it all the time,
393 so --

394 MR. PARLIN: [REDACTED] I've got a couple of things, I'm
395 just trying to understand a little bit here. Is it -- from an
396 investigator standpoint, is it normal behavior when -- I'm
397 assuming you've gone this type of stuff for B&W and other
398 companies before.

399 MR. CORDER: A little bit, yeah.

400 MR. PARLIN: Okay. Is it -- is it normal for you or

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401 your driver or whomever just to go pick up stuff and not be
402 provided any kind of paperwork or any knowledge about --

403 MR. CORDER: Well, we haven't sent a trailer like
404 that to a wreck before. We've sent lowboys, which is flatbed,
405 to load like a wrecked camper or a wrecked whatever --

406 MR. PARLIN: Okay.

407 MR. CORDER: -- where there's no manifest with that
408 or anything because it's going to either a yard for repair or
409 something.

410 MR. PARLIN: Equipment.

411 MR. CORDER: I mean, it's going away somewhere.
412 This, I don't think we've ever been actually on -- that we
413 sent this type of trailer for a loose -- I guess you'd call it
414 a loose debris.

415 MR. PARLIN: Okay.

416 MR. CORDER: And like I said, I was 300 miles away
417 when I got the call and it just -- I didn't put any thought to
418 it, you know? It was just sending it out there for some junk.
419 We got a truck wreck. We need a trailer, so --

420 MR. PARLIN: And you mentioned Monday morning when
421 you came back, you came back and noticed the trailer was full
422 and you needed that trailer, correct?

423 MR. CORDER: Yeah.

424 MR. PARLIN: Did you notice anything about the
425 trailer, just outward appearance --

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426 MR. CORDER: No.

427 MR. PARLIN: -- from like being extremely dirty,
428 having any debris or --

429 MR. CORDER: It was dirty when it -- it was dirty
430 when it went out there. We'd been hauling slop and manure and
431 all kinds of -- and we'd sent it out on some other jobs. So
432 it was a mess. The trailer was a mess when we sent it.

433 MR. PARLIN: Okay. Did you notice any paint or any
434 odd colors, any odd markings, any damage that may have been
435 done to it?

436 MR. CORDER: I don't remember any damage. But it's
437 hard to damage it.

438 MR. PARLIN: Right.

439 MR. CORDER: It's a rock --

440 MR. MUGLESTON: I think the first time you said that
441 you remembered some paint on the side of it.

442 MR. CORDER: I think when I left Idaho Waste, there
443 was some color on one of the tires. I think I remember,
444 because you've got to get out on the scale to go in to sign
445 when you leave, when you come and go out there. You get out
446 of the truck, go in the scale and sign something, you know.
447 And I think I remember seeing some color on the tires. One of
448 the tires maybe, an off-yellow or green color. But I mean, it
449 -- you're in a dump. You're dumping. If you've ever been out
450 there -- I mean, you ever been out there? When they were on

451 top, have you been out there? You just go up on top and
452 you're just backing out on trash. It's not like you're
453 dumping on a nice little pad and they push it off somewhere.
454 You're just driving out there in the garbage. So, I don't
455 know.

456 BY MR. [REDACTED]

457 Q So you said -- where were you? You were 300 miles
458 away?

459 A A couple hundred miles. I was in -- over by Baker
460 County.

461 Q Baker? So when -- then who called you about -- so
462 it was probably you say Sandy who called you to tell you to
463 take it to Idaho waste. But who called you about sending a
464 side dump?

465 A That's the part I don't remember.

466 Q You don't remember?

467 A I don't remember if it was our dispatch or him. I
468 don't -- I just don't remember how that --

469 Q And --

470 A I was on a four-wheeler out in the middle of the
471 woods. I don't really --

472 Q Sure.

473 A It was nothing. So what? Send a trailer.

474 Q Yeah, and what did they tell you, you were sending
475 the trailer to?

476 A A wreck.

477 Q But just a wreck? And did you ask any follow-up
478 questions about what type of wreck?

479 A No. I already told you that. I already told you
480 that I didn't ask any questions. We sent a trailer to a
481 wreck. My original assumption was they were just going to use
482 the trailer.

483 Q Yeah. What do you mean by just use the trailer?

484 A Just rent the trailer.

485 Q Oh, okay.

486 A They would pull it. We'd just take it out there and
487 drop it off at an exit and --

488 Q And then --

489 A And I think that's -- I don't remember, because it
490 wasn't anything. But that's kind of -- I think that's kind of
491 the way it went. We would have just took it out there and
492 dropped it off. Now, what happened between dropping it off
493 and getting it loaded and bringing it here is none of my -- I
494 don't know.

495 Q So you can just detach the tractor from that thing?

496 A Oh, yeah.

497 Q And then they would have their tractor hook up to
498 it? That's what you thought they were going to do?

499 A They've done that with our flatbeds before. So I
500 thought that's what was going to happen.

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501 Q Do you have any thoughts as to why they didn't do
502 that?

503 A No. Nope.

504 Q Did you give any instructions to the driver that
505 went out there --

506 A I never talked to the driver.

507 Q -- to make sure that they did that? You never
508 talked to the driver?

509 A Not that I remember. I don't even know which driver
510 it was. They fired two or three or got rid of two of three in
511 that time period. And I don't know. Don't remember which one
512 it was.

513 Q All right, and I -- I'm sure you asked this -- or
514 answered this, but when they called and said there was a wreck
515 out there, it was just a wreck to you. You didn't -- they
516 didn't say anything about it being a truck carrying paint or
517 anything like that?

518 A No.

519 Q So --

520 A I was out of town.

521 Q Yeah.

522 A I hadn't seen any news, you know? Nothing. It was
523 just a wreck from a wrecker company that cleans up wrecks.

524 Q By the time that you'd gotten back here though to --
525 on that Monday, you're back here and you're going to drive

526 that stuff to the dump, you didn't have any more information
527 about what it was?

528 A I figured the trailer would be empty.

529 Q Oh, when you got here?

530 A Yeah.

531 Q You were surprised to see the trailer had material
532 in it when you got here?

533 A Yeah, I figured -- so I just called them up and said
534 this is going to Idaho Waste, right? Yeah.

535 Q So you called them or they called you?

536 A I don't remember. There was a conversation about
537 taking a trailer to Idaho Waste. I don't know if I initiated
538 it or whatever. It's too long ago and too many things ago.

539 Q Yeah. Well, it matters to us because there was
540 hazardous waste in that side dump. And you drove it. Now,
541 that doesn't necessarily mean that you -- you know, when I say
542 you drove it, I'm not saying -- I'm not arguing right now that
543 you knew that you were driving hazardous waste. But the
544 scenario that you're proposing is that somebody else knew and
545 they didn't tell you.

546 A I don't know that anybody knew.

547 Q That --

548 A Later, going forward, I was told way back after you
549 guys called or not you folks, but Doreen or whatever, that it
550 was possibly something else other than what we -- what I

551 thought it was originally, other than a wreck. So at that
552 point, it's a different story. Up to this point, all I know
553 is it was a wrecked truck out on the interstate.

554 Q Yeah. Well, I mean, I will go back though to what I
555 was saying is that let's say then you say you don't know that
556 Sandy -- if Sandy's the one you spoke to, you don't know that
557 Sandy knew that it was hazardous. Is that what you're saying?

558 A Well, I'm assuming because they've never cleaned up
559 hazardous, that I know of, prior to or since then. So why
560 would they pick this one to do that? There's two or three
561 companies that they call when it is hazardous and trucking
562 companies that they call when it is hazardous -- or not they
563 call, but whoever, H2O or whoever their contractor is would
564 call someone else that's for that. All we do is that kind of
565 stuff for them and that's all they've done that I know of. So
566 I don't know who told them that it was okay to clean that up
567 or not clean it up. I don't know all that. All I know is I
568 was told it was a truck wreck and I assumed they were just
569 borrowing the trailer and it would be back in the yard ready
570 to go. I get here and it's full and --

571 Q Okay.

572 A I go out there and it's taken care of. I mean, she
573 knew it was coming.

574 MR. PARLIN: Did you -- do you recall anybody,
575 either you or you having knowledge of anybody else from --

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576 with your company having any conversations with anybody
577 regarding this crash with anybody other than B&W --
578 representative from B&W?

579 MR. CORDER: With our --

580 MR. PARLIN: You know, with any other trucking
581 company maybe calling you guys up or any other company?

582 MR. CORDER: Not that I know of.

583 MR. PARLIN: Okay.

584 MR. CORDER: The only people that would have -- if
585 it would have been hazardous and H2O would have either hauled
586 it themselves -- they're the main contractor for that kind of
587 stuff out of Boise. They would have hauled it themselves or
588 hired Steve's Four Wheeler. You've probably seen the new --

589 MR. PARLIN: Yeah.

590 MR. CORDER: And by brother-in-law runs that
591 company. So he never received a phone call.

592 MR. PARLIN: Okay.

593 BY MR. [REDACTED]

594 Q So let's say that --

595 A Oh, I don't know who shows up on the scene. I don't
596 know if the state police show up, the county. I don't know
597 who shows up and says this has got to be a certain way. I
598 don't know who that is. I've never been there before. I
599 mean, maybe you guys can tell me.

600 Q Right.

601 A I've heard that the state police show up with some
602 kind of team and say, okay, this needs this or that or the
603 other and go ahead and haul it off, our investigation's done.
604 I don't know how all that happens. So I'm just assuming all
605 that's been done. I mean, if it's --

606 MR. PARLIN: I got you.

607 BY MR. [REDACTED]

608 A -- a wreck and the next day or two days later, if it
609 was hazardous, why didn't somebody catch that in that string
610 above me and say leave that trailer sit until we figure out --

611 MR. PARLIN: Well, that's kind of what we -- what
612 I'm helping these guys try and figure out is where -- you
613 know, if something did go wrong, we're trying to figure out
614 what cog in the wheel. And right now, you're providing us
615 some very good information to help us in that direction.

616 MR. CORDER: Yeah, I mean, we didn't make any money
617 on that deal. It isn't like we got rich off the deal. We
618 don't care to hide anything or nothing. It's -- I'd just as
619 soon if we started all over, I wouldn't send the stupid
620 trailer.

621 MR. PARLIN: Yeah, I know.

622 BY MR. [REDACTED]

623 Q Well, we've got to find out though. I mean, maybe
624 at the end of the day, we found out -- we don't know what the
625 outcome will be of -- whatever we find out, we can't say right

626 now what any outcome is going to be. But we have to try, as
627 best we can, to find out what happened. And if what you're
628 saying is that you didn't know what you were hauling, nobody
629 told you, you didn't get any documentation about it, you
630 didn't have any information about the accident, but also you
631 didn't ask any questions about what it was -- is that -- I
632 mean, is that normal? Is that how you would --

633 A In that scenario, I would probably do it just like
634 that again. Well, now I wouldn't. But up until then, I would
635 have because it's -- like I said, it's a company that doesn't
636 deal in hazardous, that hasn't.

637 Q B&W?

638 A Yes. It's two or three days later. It's been
639 through an investigation by I'm assuming county and state. I
640 don't know. I mean, all these people looked at it and nobody
641 said, hey, where'd that trailer load of stuff go at that
642 point. To me, and it's going to a landfill that --

643 MR. PARLIN: Now that you mentioned landfill, it
644 brings me back to something you said earlier. You had
645 mentioned that you know that that landfill doesn't take
646 hazardous waste. Was that -- was that correct?

647 MR. CORDER: Well, I guess I should clarify. I know
648 they don't certain kinds of haz. I've seen them take paint
649 for years. I've seen them take asbestos. I've seen them take
650 lead-based -- you know, scrapings from houses. I mean, we

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651 hauled, I don't know. Like 600 tons a day in there for 10
652 years from Blackfoot -- household waste.

653 MR. PARLIN: Oh, okay.

654 MR. CORDER: You know, and over the years, you see
655 all kinds of things go in there.

656 MR. PARLIN: Right.

657 MR. CORDER: And I was always told by the manager
658 then, well yeah, we can take paint and diesel dirt.
659 Contaminated soils, they'd put it out and farm it, they'd call
660 it. Diesel dirt and a certain level of like gasoline
661 contaminated soils went out there. You know, all kinds of
662 stuff over the years. So and my sister runs the one at U.S.
663 Ecology. She's the head of customer service for U.S. Ecology
664 in Grand View.

665 MR. PARLIN: Oh, down there in Owyhee?

666 MR. CORDER: So I know kind of what they usually
667 take and what this one doesn't take. And we've had jobs we've
668 been on, cleanups that were -- DQ had us do one at Gowen
669 Field, for instance, three years ago. Well, part of that
670 product had to go to U.S. Ecology. So we hired trucks, not
671 ours, that are licensed and drivers that took that to U.S.
672 Ecology and the rest went to appropriate places.

673 MR. PARLIN: Okay. So it sounds like that's a
674 common practice for you, if you know it's hazardous, to
675 outsource --

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676 MR. CORDER: Yeah, it goes -- I don't mess -- we
677 don't have any hazardous coverage on the trucks or --

678 MR. PARLIN: Right. Okay.

679 MR. CORDER: We did at one time. But we haven't for
680 years.

681 MR. PARLIN: You also mentioned the weight tickets
682 when you -- and they might have asked this before. I wasn't
683 with the original interview. You mentioned weight tickets
684 when you rolled in there that day and when you rolled out.

685 MR. CORDER: Well, they scale you in and then when
686 you come out, they scale you out so they know what the net
687 was.

688 MR. PARLIN: Oh, okay. And do they provide you with
689 a copy of it or --

690 MR. CORDER: It's all their deal and I didn't take a
691 copy because I wasn't paying the bill.

692 MR. PARLIN: Oh, okay.

693 MR. CORDER: I think Darin's got -- you've got
694 copies of it.

695 MR. MUGLESTON: Yeah, B&W paid it.

696 MR. PARLIN: Okay.

697 MR. CORDER: Yeah.

698 MR. PARLIN: All right.

699 MR. CORDER: It was all arranged. I mean, there's
700 the other clue. I pull in there and she knows it's coming.

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701 MR. PARLIN: Right.

702 MR. CORDER: Now, the question was is this yours or
703 theirs because we haul demolition and stuff.

704 MR. PARLIN: Right.

705 MR. CORDER: So she was clarifying whether this
706 particular trailer was that particular load. Yeah, she said
707 good enough. Sign here. Take it on the hill. There was no
708 take it over there and dump it because it's something special.

709 MR. PARLIN: No dump it in a certain place or
710 anything?

711 MR. CORDER: No dump it -- we've got to put it right
712 here, nothing. Just take it up on the hill and see Gary.

713 MR. PARLIN: Okay. Now, did your -- your side dump,
714 I'm not familiar with the operations. Does it dump
715 automatically or does someone have to unload that?

716 MR. CORDER: Oh, you dump it from inside the truck.

717 MR. PARLIN: Okay.

718 MR. CORDER: It rolls either way and that time, that
719 particular load, it was set to roll off the passenger side.

720 MR. PARLIN: Okay. So you --

721 MR. MUGLESTON: Off what side?

722 MR. CORDER: The passenger, if I remember right. So
723 you don't see it. You don't have to see it --

724 MR. PARLIN: Right.

725 MR. CORDER: -- because you dump it. I think it was

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726 the passenger side. You dump it like this. So it tips over
727 and then your tractor's here and you pull away and leave.

728 MR. PARLIN: Okay. When you -- when you went up
729 there to dump the material, even before you dumped the
730 material or anything, did you -- do you remember -- do you
731 recall any particular smells, smelling any -- or in any of
732 your other dealings with the dump out there, do you remember
733 chemical smells or any --

734 MR. CORDER: That place stinks all the -- that place
735 just stinks all the time, between dead animals and rotting
736 trash. I mean, it's just a mess.

737 MR. PARLIN: Okay. Do you ever remember any pungent
738 chemical smells from it?

739 MR. CORDER: Oh, you mean in the past?

740 MR. PARLIN: Yeah, in the past. Anytime you've been
741 out there.

742 MR. CORDER: Well, it's hard to tell what they are.
743 They take slurry from who knows what kind of sumps.

744 MR. PARLIN: Okay, and when you -- you mentioned
745 driving up to the top of that hill out there. Do you ever
746 remember like a big box, a liquid box or anything like that in
747 the top of the hill?

748 MR. CORDER: That's usually up -- in fact, I don't
749 think they've used that liquid box for a while. But you're
750 talking about that old truck bed?

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751 MR. PARLIN: Yeah, a dump bed.

752 MR. CORDER: It was always up high on the top, very
753 top because they would mix it up there and let it run off into
754 the trash.

755 MR. PARLIN: Okay, and do you ever remember seeing
756 any other placarded vehicles or anybody else dump placarded
757 stuff up there?

758 MR. CORDER: No, I don't remember any placards up
759 there, other than contaminated soil, you know, like diesel
760 spill stuff. What's that, 3077 or something like that?

761 MR. PARLIN: NOS.

762 MR. [REDACTED] I don't mean to cut you off.

763 MR. PARLIN: No, you're good.

764 BY MR. [REDACTED]

765 Q I saw there was an invoice from your company to
766 Corder, LLC and it was like \$600 or something like that. But
767 then, the invoice from Corder, LLC to B&W was like \$1,100.
768 Can you explain what the difference was?

769 A I don't know what the difference would have been.
770 They dispatched it. So they would have billed it, even though
771 it was our trailer. We have a little bit of an odd
772 relationship there because I used to run that deal and started
773 that deal. I have a different partner. So if they dispatched
774 it, they would have billed it. And I don't know if it was for
775 labor or for something else. B&W tows their trucks and they

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776 sell parts also. And I don't know what -- I wasn't involved.

777 I don't send that bill out. So I don't know what the --

778 Q You said they bill it. They bill what? Like

779 there's a cost for accepting a dispatch call?

780 A They would have set the invoice for the rental of
781 the trailer.

782 Q Okay. So if the --

783 A We share -- we share the same secretary and office.

784 Q Yeah.

785 A And we don't have an account, CWE, with B&W. So
786 Corder dispatched it. So they would have billed it through
787 Corder to B&W.

788 Q Yeah, but --

789 A And then they would have then -- CWE would have then
790 billed Corder for whatever the rent was due on that trailer.

791 MR. MUGLESTON: Let me -- let me stop for just a
792 minute. I -- actually, you brought up a good question.
793 That's what I forgot to print out. That was some confusion to
794 me, Tim, was the invoices, not that it's a big picture thing.
795 But can you explain to me again -- and I'm just now catching
796 up here. So I know you have the two companies. You have the
797 Corridor -- or CWE, which is your company, Corder and White
798 Excavating --

799 MR. CORDER: Mine and one other partner.

800 MR. MUGLESTON: Then, there's Corder Trucking.

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801 MR. CORDER: Corder, LLC.

802 MR. MUGLESTON: Corder, LLC. Was that invoice to
803 Corder, LLC?

804 MR. [REDACTED] The invoice from CWE to Corder, LLC
805 was for something like \$600, if I recall. The invoice from
806 Corder, LLC to B&W was for like -- or to Prime or to whoever -
807 -

808 MR. CORDER: No, it wasn't -- we never billed Prime.

809 MR. [REDACTED] Okay.

810 MR. CORDER: Nobody did. I checked that after last
811 time.

812 MR. [REDACTED] Okay.

813 MR. CORDER: We've never had any conversation with
814 prime.

815 MR. [REDACTED] Then the invoice from Corder, LLC to
816 B&W was for like \$500 more or something, like \$1,100.

817 MR. MUGLESTON: And that's typically --

818 MR. CORDER: It could have been a markup, some of
819 it.

820 MR. MUGLESTON: Okay.

821 MR. CORDER: It could have been parts because they
822 sell used truck parts.

823 MR. MUGLESTON: Okay.

824 MR. CORDER: It could have been --

825 MR. MUGLESTON: So that's not uncommon to happen.

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826 MR. CORDER: It could have been a tow bill.

827 MR. MUGLESTON: Okay.

828 MR. CORDER: That wouldn't have been uncommon to --

829 MR. MUGLESTON: Okay.

830 MR. CORDER: I think that's -- I think you had me
831 forward that to you and that's why I did it that way.

832 MR. MUGLESTON: Yeah, I'm --

833 MR. [REDACTED] Okay.

834 BY MR. [REDACTED]

835 Q So we'll -- we're going to keep trying to get to the
836 bottom of who knew what when related to the first incident.
837 And I think we understand -- we've pretty well covered your
838 side of the story and what you're saying that you knew and all
839 that. But if -- I mean, if the case -- if it was just the
840 case that, you know, you found yourself backed into a
841 situation on Monday that you weren't too happy with, but you
842 figured what the hell, it's only, what, 30 miles or something
843 to the dump --

844 A I wasn't worried about it. There was no situation.

845 Q As far as you knew.

846 A As far as I was concerned, there was no situation
847 other than I needed to get to my job.

848 Q Well, I say as far as you knew because there was a
849 situation. There was hazmat. There was hazardous waste.

850 A Now you know that.

851 Q Yeah, that's what I mean.

852 A Up to that point, nobody had said anything. You've
853 got a state team. You've got Prime or whoever the hell owned
854 the thing. They didn't bother to -- I guess. I mean, you're
855 standing here asking me. So apparently none of those people
856 did anything that they were supposed to do.

857 Q Well, this helps us to figure that out and that's
858 why I'm asking that final question is because we're going to
859 spend a lot of time trying to figure it out. But if the truth
860 is simply that Monday morning, you came here, you needed the
861 truck, so you're like, what the heck, I'll just get this stuff
862 to the dump really quick, what's the chances of something
863 happening, then it would help everybody -- if that's the
864 truth, it would help us all if you would just tell us that.

865 A I'm telling you, I don't know. I didn't know that
866 there was anything wrong with it, based on that fact that it's
867 loaded out here, going to a dump that doesn't accept -- they
868 all know about it. The wrecker company has paid for it and
869 contacted them. So apparently somebody above them had already
870 told them it was good to go there or not hazardous. I don't
871 know. I don't know what happened above me.

872 MR. PARLIN: The other thing we're trying to find
873 out too, if those at fault on any of the agencies, any of the
874 first responder agencies that was out there. You know, if the
875 state police turned the other cheek --

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876 MR. CORDER: Yeah, I don't know.

877 MR. PARLIN: Or if my guys turned the other cheek,
878 that's one thing that I'm interested in getting to the bottom
879 of too.

880 MR. CORDER: All I know is I heard later, and I
881 don't know what time, but after you guys got to digging around
882 and then people started talking. I understand that there was
883 some state agency out there that looked it all over and told
884 them to go ahead. Don't know which agency. But I was told
885 that. So now, looking back, I still don't think that I did
886 anything wrong because there's at least three agencies -- an
887 owner of the truck, an environmental company that's in charge
888 of cleaning up their messes across the country, correct? I
889 don't remember what they called themselves. Do you know?

890 MR. MUGLESTON: Premium.

891 MR. CORDER: Premium. So you've got the owner and
892 you've got Premium and you've got whoever at the state comes
893 out and looks at a wreck. All those three there and then a
894 wrecker company.

895 BY MR. [REDACTED]

896 Q You talked about the first incident now or --

897 A The first incident, when it first happened. You've
898 got the Prime company I guess it was. You've got Premium.
899 Then you've got -- so those two apparently talked to each
900 other there because there was a wreck and that's what Premium

901 does, is deal with that wreck. And then, somebody at the
902 state, I would assume, come out there. That's what I was
903 told, some state agency come out and looked at it and said, go
904 ahead, B&W, with your business. They didn't say, no, stop,
905 we'd better call H2O or whoever. I don't know if it was a
906 fire agency or I don't know. That's what I don't know. I
907 never was involved with any of that and still don't know.
908 Okay, then B&W, so that's how I was looking at it. I had no
909 concern because there's a whole lot of people above it that
910 said haul it to Idaho Waste.

911 Q Well, I mean, they didn't say to haul it to Idaho
912 Waste.

913 A Nobody said not.

914 Q Sandy called you and told you to haul it to Idaho
915 Waste.

916 A Correct.

917 Q None of those other entities told you to haul it to
918 Idaho Waste.

919 A Well, then go to them and ask them who told them.

920 Q But they didn't --

921 A Because I'm working for them at that point.

922 Q For who?

923 A For Sandy, for B&W.

924 Q You're working --

925 A At that point, I'm number five on the list there

926 working for B&W.

927 Q No, you're right. If Sandy and B&W knew and didn't
928 tell you, then that's a problem for them.

929 A If we'd gone out and --

930 Q If they -- if we go to them --

931 A -- in the middle of the desert somewhere and dug a
932 hole, I wouldn't have just hauled the trailer out there and
933 said, I'll take it wherever. I would have said, what is this.

934 Q Yeah.

935 A But when a wrecker company commonly cleans up wrecks
936 on the side of the road and another company commonly cleans up
937 hazardous wrecks on the side of the road, there's no -- I
938 mean, it looks to you --

939 Q My --

940 A -- because you see it in an office that it's common
941 sense to ask what the heck is this. But the way we do that is
942 apparently wrong, and it won't happen again. But we -- that's
943 what was my chain of thought. I'm not worried about it.

944 MR. [REDACTED] And just to clear up one thing, I
945 don't think Premium was out there, were they, Darin?

946 MR. MUGLESTON: No.

947 BY MR. [REDACTED]

948 Q Premium wasn't out there at that time.

949 A No, but they would have received a phone call
950 because that's their contract, as I understand it, like many

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951 other trucking companies have. They have someone that deals
952 with wrecks and spills and what have you across the whole
953 country. And they contract locals, I guess.

954 Q Okay. So the second incident then, who asked you to
955 clean up the second incident, I guess the remaining material
956 that was out on the highway?

957 A Initially, I don't even remember, to tell you the
958 truth.

959 MR. MUGLESTON: Try. This is important.

960 BY MR. [REDACTED]

961 A I don't remember the first conversation, who was
962 with what. At some point, we got with Premium. But I don't
963 know -- you know, it might have even been the -- no, I don't
964 know how I got into contact with Premium. I don't remember.
965 I just don't.

966 MR. MUGLESTON: But you had a conversation with
967 Premium at some point.

968 MR. CORDER: It was about three of them.

969 MR. MUGLESTON: Okay.

970 MR. CORDER: Because somebody was off on -- I think
971 there's a Tom and there's a Jamie and something else there.
972 And every time you call, somebody was on vacation or in
973 training or something.

974 MR. MUGLESTON: Okay. But at some point, you had a
975 conversation with Premium.

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976 MR. CORDER: And you know what, I think they called
977 me actually. I think they actually called me. Now, where
978 they got our number from, it could have been B&W. It could
979 have been the state of Idaho, because we've done some other
980 cleanups. We cleaned up some dirt and potatoes right there in
981 that same location. So the state inspector might have given
982 them our name to call. I don't know. I do believe, thinking
983 back, that someone contacted me over the cleanup.

984 MR. MUGLESTON: Okay.

985 BY MR. [REDACTED]

986 Q Did they ask you for a bid or did they just tell you
987 to do it?

988 A No, they asked for a -- as far as I remember, they
989 wanted to know what it was going to cost to clean it up. I
990 needed a load of gravel, if I remember right, to go back out
991 there.

992 MR. MUGLESTON: Let me stop. This is -- this is the
993 crucial part here. So the best that we can put this thing
994 together, whether who contacted at the very first, we're sure
995 we can't quite -- but you had a conversation with Premium at
996 some point.

997 MR. CORDER: correct.

998 MR. MUGLESTON: And Premium said, Tim -- what did
999 they say? Can you go out to the site? Can you take a look at
1000 it? Did they say we've got something going on out here? What

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1001 --

1002 MR. CORDER: they just said they had a -- as far as
1003 I remember, it was just they had had a wreck.

1004 MR. MUGLESTON: Okay.

1005 MR. CORDER: And needed a bid on the vinyl cleanup
1006 because the wrecker company didn't pick up all the pieces and
1007 scraps and didn't clean up the grass and it looked poor. I
1008 don't remember if it was that conversation or the next one.
1009 But it was something to do with the state would like it
1010 cleaned up better.

1011 MR. MUGLESTON: Okay. Hang on. So the cleanup
1012 company, this is the best of your recollection --

1013 MR. CORDER: Correct.

1014 MR. MUGLESTON: The cleanup company didn't -- lack
1015 of a better word -- do a proper cleanup. They left --

1016 MR. CORDER: Well, the wrecker company.

1017 MR. MUGLESTON: The wrecker company.

1018 MR. CORDER: And that's pretty common. I mean, I
1019 think these guys probably see that too. A wrecker company
1020 goes out there and cleans up and there's still pieces of tire
1021 and trailer and --

1022 MR. MUGLESTON: Okay. So --

1023 MR. CORDER: In fact, I did two others within a
1024 couple of weekends.

1025 MR. MUGLESTON: Okay, so --

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1026 MR. CORDER: Just debris cleanup.

1027 MR. MUGLESTON: Okay. So when Premium calls up and

1028 says, hey, can you go out there and give us a bid on a --

1029 MR. CORDER: Correct.

1030 MR. MUGLESTON: -- on a cleanup, did you drive out

1031 there?

1032 MR. CORDER: No.

1033 MR. MUGLESTON: What did you base your bid on?

1034 MR. CORDER: I called the state inspector and asked

1035 him just what they were looking for.

1036 MR. MUGLESTON: And who did you call?

1037 MR. CORDER: His name was Carl something. Carl, I

1038 can't remember his -- and he just said that the state wanted

1039 it cleaned up better.

1040 MR. PARLIN: Is that a Carl that works with ITD?

1041 MR. CORDER: Yeah.

1042 MR. PARLIN: If we give you some last names, if we

1043 throw some out there, do you think you could recall?

1044 MR. CORDER: I don't know that I ever heard his last

1045 name actually. He's the guy for this area.

1046 MR. PARLIN: Carl Vaughn, maybe?

1047 MR. CORDER: Could have been.

1048 MR. MUGLESTON: Carl Vaughn. Yeah, that's the guy's

1049 name.

1050 MR. CORDER: It could have been. It's the Carl for

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1051 this area. It isn't going to be hard to figure out.

1052 MR. PARLIN: Okay, and that was with ITD?

1053 MR. CORDER: Correct.

1054 MR. PARLIN: Okay.

1055 MR. CORDER: Yeah, because I had to get a --

1056 MR. PARLIN: That would be Carl Vaughn.

1057 MR. CORDER: I had to get a permit, a traffic

1058 control permit.

1059 MR. PARLIN: Right.

1060 MR. CORDER: And applied for that and that takes --

1061 I don't know. It took a week or two.

1062 MR. PARLIN: Okay.

1063 MR. MUGLESTON: So you --

1064 MR. CORDER: In fact, from that conversation, when

1065 they told me to go ahead and do it, it was several weeks

1066 before I ever did it.

1067 MR. MUGLESTON: Okay. So you did talk to Carl.

1068 MR. CORDER: I just called him and said what do you

1069 want done.

1070 MR. MUGLESTON: And what did he want done?

1071 MR. CORDER: They just wanted it brushed up. They

1072 said there was some burned something on the side of the road

1073 right up on the asphalt. So they wanted me to peel that off

1074 and they wanted to get it cleaned up so the grass would grow.

1075 It was right by a sign and --

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1076 MR. MUGLESTON: Okay, and what, excavate and stuff
1077 like that?

1078 MR. CORDER: Yeah, just brush it off. Clean it up,
1079 brush it off and maybe bring a load of gravel out to make sure
1080 that there wasn't any depressions or anything.

1081 MR. MUGLESTON: Okay, and so, you just called up
1082 Carl. He told you kind of what he wanted. You didn't drive
1083 out there. You just said, okay, based -- I mean, what -- you
1084 came up with a bid or you came up with a price?

1085 MR. CORDER: I just said this much gravel. I need
1086 three or four hours, x piece of equipment --

1087 MR. MUGLESTON: But how would you know how big the
1088 place was? Did Carl tell you?

1089 MR. CORDER: He told me. He just said it was like
1090 60 feet long and the width of the --

1091 MR. MUGLESTON: Okay. So it was Carl that gave you
1092 the dimensions.

1093 MR. CORDER: Basically.

1094 MR. MUGLESTON: And you based it on, okay, I'll do a
1095 quick calculation. You came up with a price. Then you called
1096 Premium back with that price? Do you know if you actually
1097 handwrote a bid down and faxed it to them or emailed it to
1098 them or --

1099 MR. CORDER: I might have emailed one. I don't
1100 remember.

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1101 MR. MUGLESTON: All right. So what happened after
1102 that?

1103 MR. CORDER: I think we did email. Typically, I
1104 would have emailed a quote.

1105 MR. MUGLESTON: Typically you would. Okay. So
1106 eventually, obviously you got the phone call from Premium
1107 saying --

1108 MR. CORDER: They called back saying let's get it
1109 done and go ahead and clean it up.

1110 MR. MUGLESTON: Okay.

1111 MR. CORDER: I don't know the exact words. But --

1112 MR. MUGLESTON: No, I understand that. Okay.

1113 MR. CORDER: I never did receive -- I never received
1114 -- if you're looking for like a contract, I don't remember
1115 ever receiving any contract that I saw anyway.

1116 MR. MUGLESTON: Did he ask you about taking samples
1117 or anything?

1118 MR. CORDER: No.

1119 MR. MUGLESTON: Did you ask, do I need to take
1120 samples?

1121 MR. CORDER: No.

1122 MR. MUGLESTON: And that was talking to this Premium
1123 you're not sure exactly which one it was --

1124 MR. CORDER: Yeah, Premium.

1125 MR. MUGLESTON: Who, what individual it was.

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1126 MR. CORDER: Yeah, and he said -- I don't remember
1127 exactly what we talked about there. He didn't have any real
1128 information to me at that point, other than the state wants it
1129 brushed up so it looks nicer.

1130 MR. MUGLESTON: Was there any indication there was
1131 paint out there, paint residue?

1132 MR. CORDER: Well, that's -- I don't remember when
1133 the paint first came in, when I knew there was a paint truck.
1134 I still don't think there was any paint. If you guys say
1135 there was, there was. But from what I --

1136 MR. MUGLESTON: Oh, I can show you photographs of
1137 the stuff --

1138 MR. CORDER: From what I understand afterwards, how
1139 bad the fire was, how was there any paint left?

1140 MR. MUGLESTON: There was a lot of paint left, and
1141 if you looked at the soil in the back of your truck, Tim --

1142 MR. CORDER: There was --

1143 MR. MUGLESTON: It was yellow.

1144 MR. CORDER: In which truck?

1145 MR. MUGLESTON: The truck that had your -- when you
1146 went out and excavated, the second cleanup, there was paint
1147 all over that.

1148 MR. CORDER: Oh, there was no yellow paint.

1149 MR. MUGLESTON: Heck, there wasn't. I can show you
1150 the photographs. There's a lot of yellow paint.

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1151 MR. CORDER: There was some crusty --

1152 MR. MUGLESTON: There was yellow paint, my friend.

1153 The pictures don't lie.

1154 MR. CORDER: Yellow running paint?

1155 MR. MUGLESTON: Not running. It was dried. It's

1156 been sitting there for two months.

1157 MR. CORDER: There was some crusty stuff that --

1158 MR. MUGLESTON: Crusty stuff paint.

1159 MR. CORDER: I don't know if that's plastic or paint

1160 or --

1161 MR. MUGLESTON: It was paint.

1162 MR. CORDER: Well, I didn't know that at that time.

1163 I thought it was whatever wreck, plastic, the parts of the

1164 trailer, whatever.

1165 MR. MUGLESTON: That I don't believe, Tim. I don't

1166 believe any of it. Sorry.

1167 MR. CORDER: Well, I didn't know there was paint.

1168 There was hazardous --

1169 MR. MUGLESTON: There was paint. And that's not --

1170 we're not getting off on whether you knew there was paint or

1171 not. I'm just asking did they -- Premium talk to you about

1172 there being paint out there. That's what I'm trying to find

1173 out. What did Premium tell you?

1174 MR. CORDER: They didn't tell me it was paint or I

1175 would have told them to call H2O.

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1176 MR. MUGLESTON: Okay. Why?

1177 MR. CORDER: Because we -- because we don't do that.

1178 We can dig it. But we wouldn't have hauled it. We wouldn't

1179 have done any of those other things.

1180 MR. [REDACTED] So three months --

1181 MR. CORDER: And we wouldn't have -- I don't sample.

1182 We use -- we use an environmental company out of Boise to take

1183 any sampling when we're asked to do those kind of jobs and we

1184 usually just work for them. We give them the work. We just

1185 did one down the interstate from there that was a fuel truck

1186 wrecked.

1187 MR. MUGLESTON: All right. Tim, I'm going to ask

1188 you this again. This is so important. It's not directed so

1189 much on you. I just need to know --

1190 MR. CORDER: The first conversation, there was no --

1191 MR. MUGLESTON: Mention about paint?

1192 MR. CORDER: There was no mention about paint,

1193 sampling, dealing with all of that, none of that. There was

1194 no take -- this has got to go to a certified landfill for

1195 hazardous waste. There was none of that conversation.

1196 MR. MUGLESTON: Let me back up. You mentioned it

1197 earlier about this piece of the puzzle. We've got a lot of

1198 pieces of the puzzle, okay? So some of these questions that

1199 we're asking, just answer them because we're already fitting

1200 these things in. So when Premium -- if it's true that Premium

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1201 didn't tell you that there was paint, that's of interest to us
1202 because we have these other pieces of the puzzle.

1203 MR. CORDER: At that conversation, I don't remember
1204 the word paint.

1205 MR. MUGLESTON: They never asked you to sample?

1206 MR. CORDER: No, never asked me to sample. In fact,
1207 my bid would show that there was no sampling quoted. And if
1208 we were going to sample, if we were going to do all these
1209 other certain steps, there would have been pricing for each
1210 one of those steps.

1211 MR. MUGLESTON: Okay. You based your quote, your
1212 bid on some measurements that you got from the DOT. You
1213 provided it to Premium. Premium called you back. Do you know
1214 if it was emailed or called back?

1215 MR. CORDER: That was a call.

1216 MR. MUGLESTON: Okay, called back and said, we'll go
1217 with you. Then what did you do? You went out there?

1218 MR. CORDER: No. Then I got a ride-away permit.

1219 MR. MUGLESTON: Oh, that's right.

1220 MR. CORDER: And that took -- I don't remember how
1221 much time. That usually takes a week or two or so. Then,
1222 after that, it was -- I don't know. It rained a couple of
1223 weeks when I had scheduled and it was several weeks before I
1224 ever went out there to actually excavate it.

1225 MR. MUGLESTON: Okay. So you get out there and you

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1226 excavate it. You put the soil in the back of your truck. You
1227 bring the truck back here. And then, we go on to this --
1228 you're ready to go dispose of it at Idaho Waste Systems.

1229 MR. CORDER: Correct, and it starts on fire.

1230 MR. MUGLESTON: The landfill catches on fire.

1231 BY MR. [REDACTED]

1232 Q How come you are going to take it at that point in
1233 time to Idaho Waste Systems?

1234 A Because no one asked to have it tested. No --

1235 Q Was that your -- I guess was that your decision?

1236 Was it up to you where to take it or --

1237 A Yeah, I think so.

1238 Q -- did Premium tell you where to take it?

1239 A No, no. Premium never said to take it or not take
1240 it. No.

1241 Q So you would have taken it to Idaho Waste Systems?

1242 A And I would have listed that on the quote.

1243 Q Okay.

1244 A That it was going to Idaho Waste. So if they cared
1245 as an environmental company, they never asked has it been
1246 tested, is it okay to take it there, is that a certified
1247 disposal landfill for hazardous. Never had that conversation.

1248 Q Okay.

1249 A And they knew for -- I didn't keep track of the
1250 weeks. But there were several weeks there between the time

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1251 they said to clean it up to the time I got to it, due to
1252 weather and some other things.

1253 MR. MUGLESTON: Tim, I know this is going to be
1254 really hard to answer and you may or may not be able to. Do
1255 you remember specifically who you talked to at Prime?

1256 MR. CORDER: I never talked to Prime.

1257 MR. MUGLESTON: I mean, at --

1258 MR. [REDACTED] Premium.

1259 MR. MUGLESTON: -- Premium. I apologize.

1260 MR. CORDER: Which time?

1261 MR. MUGLESTON: So anything dealing with, Tim, can
1262 you go out there to the site, can you -- anything where they
1263 would have -- someone would have said that there was paint out
1264 there? Anywhere -- you know, if you're calling the lady
1265 about, hey, did you get my fax, I don't care about that. Hey
1266 -- anybody that you dealt with concerning this site, to go and
1267 clean this thing up? Now, I know that we're going to be tying
1268 in another issue and that is when Premium called you up and
1269 stops you from disposing of it. That's --

1270 MR. CORDER: They didn't call me up.

1271 MR. MUGLESTON: Somebody did. Thank you.

1272 MR. CORDER: Doreen.

1273 MR. MUGLESTON: All right. But going back to this
1274 initial phone call with Prime --

1275 MR. CORDER: Premium.

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1276 MR. MUGLESTON: Do you remember who that -- Premium,
1277 sorry -- who you were talking it?

1278 MR. CORDER: It might have been Tom.

1279 MR. MUGLESTON: Okay.

1280 MR. CORDER: There was --

1281 MR. [REDACTED] Do you know a last name?

1282 MR. CORDER: I don't remember. I know there was
1283 three of them because every time you call, there was somebody
1284 else.

1285 MR. MUGLESTON: Somebody else. Nobody knew. But it
1286 was -- those individuals never again told you -- explained to
1287 you about there may potentially be paint out there.

1288 MR. CORDER: No, nobody asked to have it tested --

1289 MR. MUGLESTON: Okay.

1290 MR. CORDER: -- to have it -- nobody said what are
1291 you going to do for your money.

1292 MR. MUGLESTON: Okay. All right.

1293 MR. CORDER: Now, when Doreen called --

1294 MR. MUGLESTON: Yeah. It's actually Maureen, but
1295 that's fine.

1296 MR. CORDER: Whatever. I was ticked at that point
1297 because she's saying you're all going to jail basically is
1298 what she's saying. I'm like, for what? I've got -- so it's
1299 sitting here tarped. So I call there, Premium, and I believe
1300 that time I spoke to a Jamie.

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1301 MR. MUGLESTON: Who?

1302 MR. CORDER: I think a Jamie.

1303 MR. MUGLESTON: Jamie?

1304 MR. CORDER: It's a male.

1305 MR. MUGLESTON: Yeah.

1306 MR. CORDER: I think that's who, and he said, no,

1307 that ain't hazardous. It's burned and --

1308 MR. MUGLESTON: Okay. So let's stop here for a

1309 minute.

1310 MR. CORDER: So that's when Doreen's the one that

1311 said it's paint.

1312 MR. MUGLESTON: All right. Hang on. This is

1313 important stuff. So you bring your truck out here. It's

1314 filled with soil, the excavation dirt, and you're waiting --

1315 the landfill catches on fire.

1316 MR. CORDER: Which is not uncommon.

1317 MR. MUGLESTON: Which is not uncommon. So in other

1318 words, you haven't went and disposed of it yet.

1319 MR. CORDER: No.

1320 MR. MUGLESTON: It's sitting there. You get a phone

1321 call from DEQ, Maureen.

1322 MR. CORDER: Yeah.

1323 MR. MUGLESTON: And she talks to you about this soil

1324 potentially could be hazardous waste. You're all going to go

1325 to jail, yada, yada, yada.

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1326 MR. CORDER: Basically.

1327 MR. MUGLESTON: Now, you then called --

1328 MR. CORDER: Premium.

1329 MR. MUGLESTON: You called Premium and talked to

1330 maybe a -- maybe Jamie.

1331 MR. CORDER: Jamie.

1332 MR. MUGLESTON: There is a Jamie. So that's okay.

1333 MR. CORDER: Well, I know that -- in the office at

1334 that point. So it was Jamie I'm pretty sure.

1335 MR. MUGLESTON: Okay, and you told Jamie what DEQ

1336 said to you.

1337 MR. CORDER: Yeah, I said you guys fix this. This

1338 truck is not leaving this yard until we know what it is and

1339 where to take it.

1340 MR. MUGLESTON: You said that to Premium? Yeah,

1341 Premium. I'm going to get Prime and Premium mixed up.

1342 MR. CORDER: And his words to me were it's not a big

1343 deal. It's burned. It's a bunch of containers. We're not

1344 worried about it. It's -- I don't remember if he used low

1345 levels or -- I don't know. There was some terminology he had.

1346 And he's the environmental company. So they should know

1347 technically.

1348 MR. MUGLESTON: Did he say it was nonhazardous?

1349 MR. CORDER: I don't know that there was any of

1350 those type of words used.

1351 MR. MUGLESTON: Those words used. But it was not a
1352 big deal?

1353 MR. CORDER: Well, he did say -- he said it's not
1354 hazardous because of the volume and what's left after being
1355 burned.

1356 BY MR. [REDACTED]

1357 Q Now, why did you tell him so, like, forcefully that
1358 you weren't going to move it --

1359 A Because DEQ was saying that I'd better not move it
1360 or I was going to be -- from there -- I think her words were
1361 if I were to do something with it from this point, that it was
1362 on me. I don't remember the exact conversation there. But I
1363 was scared enough then that I was in something I wasn't
1364 supposed to be. So the truck wasn't going to leave this yard
1365 until some higher power says --

1366 Q I see. All right.

1367 MR. MUGLESTON: Okay. So after you -- after Jamie
1368 said that, what did you tell Jamie -- or yeah, what did you
1369 tell Jamie?

1370 MR. CORDER: I gave him that Maureen's phone number
1371 --

1372 MR. MUGLESTON: Phone number.

1373 MR. CORDER: -- and said you call them and work this
1374 out and let me know what I'm supposed to do with this.
1375 Otherwise, I'm going to charge you rent for the truck. And he

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1376 said, dump it out on a tarp and leave it covered and we'll
1377 deal with it. And I'm -- well, at this point, I'm not going
1378 to go dump it out at yet another yard.

1379 MR. MUGLESTON: Okay, and then, Jamie said dump it.

1380 MR. CORDER: On a liner.

1381 MR. MUGLESTON: -- out on a liner and we'll deal with
1382 it.

1383 MR. CORDER: Yeah.

1384 MR. MUGLESTON: And you said, no, I'm not going to
1385 do that.

1386 MR. CORDER: No. I said I'm going to rent you the
1387 truck and it's going to stay right here, tarp and the truck.

1388 MR. MUGLESTON: And the reason why you wouldn't dump
1389 it on the ground is because --

1390 MR. CORDER: I didn't know what it was at this
1391 point. Now I don't know what it is. I don't know -- I mean,
1392 it didn't look like nothing when I dug it other than some
1393 crust. If you say there was yellow paint --

1394 MR. MUGLESTON: Oh, there was. But anyways.

1395 MR. CORDER: Whatever. It was crusty and I got a
1396 big old bucket I'm digging it with. So if it came out in
1397 there and it flipped the crust over and looked yellow -- I
1398 didn't see yellow paint.

1399 MR. MUGLESTON: I understand. But I want to know
1400 what you said to Prime -- I want to know what you said to

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1401 Jamie and Jamie -- so you -- the reason why you didn't want to
1402 dump it out -- what I'm trying to figure out why did Jamie say
1403 dump it out on the ground is the --

1404 MR. CORDER: He didn't want to rent the truck, see?

1405 MR. MUGLESTON: Oh, okay. So --

1406 MR. CORDER: They didn't want to pay rental on the
1407 truck. So they're saying dump it on a liner and I'm saying --

1408 BY MR. [REDACTED]

1409 Q And you were saying what? You didn't want to do
1410 that?

1411 A I'm saying -- I'm saying, uh-uh. Now that DEQ's
1412 looking, ain't no moron going to dump it on the ground then.

1413 MR. MUGLESTON: And that was my next question. Why
1414 wouldn't you dump it on the ground?

1415 MR. CORDER: Because I didn't --

1416 MR. MUGLESTON: Here's an environmental company
1417 telling you to dump it on the ground.

1418 MR. CORDER: Because at this point, I didn't trust
1419 them at this point because I was here. And all the
1420 environmental companies that I've used in the past, you don't
1421 get to this point.

1422 MR. MUGLESTON: Okay. So that's why you didn't want
1423 --

1424 MR. CORDER: Yeah.

1425 MR. MUGLESTON: You weren't trusting --

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1426 MR. CORDER: Yeah, I wasn't going to trust anybody.

1427 MR. MUGLESTON: Okay.

1428 MR. CORDER: Until -- until they -- someone higher
1429 up came and said this is what it is, this is what we need to
1430 do with it.

1431 MR. MUGLESTON: All right. So then, what did Jamie
1432 say after that? And we're assuming it's Jamie, but --

1433 MR. CORDER: Yeah, he said, okay, fine. Send us a
1434 bill for the rent. We'll pay the rent on the truck and we'll
1435 deal with DEQ and get this resolved.

1436 MR. MUGLESTON: And that was out of your hands then?

1437 MR. CORDER: So we left it. We put a big tarp over
1438 it so, you know, no contamination and left it sit and charged
1439 them by the week.

1440 MR. MUGLESTON: You actually made a lot of money
1441 doing that too, by the way.

1442 MR. CORDER: Well, that was the best paying part of
1443 the whole deal, which it still didn't pay as well because the
1444 truck makes \$900 a day when it's working. So I think I only
1445 charged them \$450 or \$500, so, a wee.

1446 MR. MUGLESTON: All right. So --

1447 MR. CORDER: And the next phone call I got was from
1448 --

1449 MR. MUGLESTON: H2O.

1450 MR. CORDER: Yeah, H2O saying that they needed an

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1451 address to come and test it.

1452 MR. MUGLESTON: All right. Well, that's going to
1453 bring us into the next line of questioning, is H2O. So is
1454 there anything else that we need to ask? That is -- you don't
1455 know how crucial information that is because, remember this
1456 piece of the puzzle? We've got other pieces of the puzzle
1457 about Premium and Prime and so forth. So that's very helpful.
1458 Thank you.

1459 MR. [REDACTED] You want to go on to the issue of --

1460 MR. MUGLESTON: Yeah. I think we've covered all
1461 that, right?

1462 BY MR. [REDACTED]

1463 Q Okay. So H2O then, they contacted you and said --

1464 A Yeah I think so.

1465 Q Okay. So, and they said what?

1466 A They were coming to test the truck. They needed an
1467 address.

1468 Q And who came to test it?

1469 A We weren't here.

1470 Q You weren't here? Do you know whether they did come
1471 to test it?

1472 A Yes. They called me and said they couldn't get the
1473 tarp back right or they wanted me to check the tarp later that
1474 night or something. I don't know.

1475 Q Okay. So somebody from H2O came to test it and --

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1476 A I think they came twice actually.

1477 Q Okay.

1478 A If I remember right. They came once and then they
1479 returned another time, maybe another couple of weeks later.

1480 Q Do you know why?

1481 A I was just called and told they needed to check it.

1482 MR. PARLIN: Did they do it themselves or was
1483 somebody on premises to help?

1484 MR. CORDER: We weren't here.

1485 MR. PARLIN: Okay.

1486 MR. CORDER: We were --

1487 MR. PARLIN: So they were just coming to your yard
1488 and --

1489 MR. CORDER: Yeah, they just had the address and --

1490 MR. MUGLESTON: Was that here?

1491 MR. CORDER: Yeah, it was sitting right here. We
1492 were working in Caldwell at the time, so all of our people
1493 were over there.

1494 BY MR. [REDACTED]

1495 Q And then, do you know why they were testing it?

1496 A I would assume to figure out exactly what it is so
1497 we know where to take it or environmental job they didn't do.
1498 I mean, I don't know.

1499 Q And do you know what the results of the rest were?

1500 A Not at the time.

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1501 Q At what time?

1502 A No one called me and said it's -- when we were told
1503 to haul it to Idaho -- or actually, Idaho Waste was on fire.
1504 So I was told to take it to U.S. Ecology.

1505 Q Okay.

1506 A Well, they weren't on top at that time. They were
1507 out. But they burned all their equipment and they were out of
1508 service, so to speak. They weren't operational.

1509 Q All right. So you didn't -- you don't -- you did
1510 not get the results of the test before you drove it to U.S.
1511 Ecology?

1512 A I don't know that I've ever seen any results.

1513 Q Okay.

1514 A Other than you guys showed me some manifest the last
1515 time we spoke.

1516 Q Okay. Did anybody tell you -- so you didn't see any
1517 paper results. Did anybody tell you what the results were?

1518 A Nope, because the only conversation I had about the
1519 results were with that Craig -- he works at H2O, Craig.

1520 MR. MUGLESTON: Simmons?

1521 MR. CORDER: Might have been. I don't know. Craig
1522 something there at H2O. And I said -- he said, okay, we're
1523 working on the manifest. You're going to have to take that to
1524 U.S. Ecology. I said, fine, come get it. We'll just lease it
1525 to you. You guys deal with it. Take the truck. Deal with

1526 it. He said, no, don't worry about it. Take it down there.
1527 Actually, back up. He said, let me talk to my guys, meaning,
1528 I don't know, supervisors. I don't know what he meant by my
1529 guys. Let me talk to my people. And I said, if it's
1530 something bad, I don't want to mess with it. You guys can
1531 just take the truck and deal with it. If you don't want to
1532 bring the truck back here, leave it down there and I'll come
1533 get it when it's empty, whatever. He said, don't worry about
1534 it. We'll have the manifest for you. Just take it down
1535 there.

1536 BY MR. [REDACTED]

1537 Q And how did you get the manifest?

1538 A It was in an envelope and I think he brought it up
1539 that morning.

1540 Q Brought it over to you?

1541 A Yeah. Yeah, he did. He walked in the shop with an
1542 envelope and said, there you go, go take this to U.S. Ecology.

1543 Q And you think this was somebody named Craig Simmons
1544 at H2O?

1545 A Yeah, Craig something.

1546 Q Okay.

1547 A And again, I asked at least two different times, why
1548 don't you guys take the truck or do you want to unload the
1549 truck and put it in your truck. And everybody -- those guys
1550 were like --

1551 Q What did you guys -- did you have any discussions
1552 about the manifest when he brought it?

1553 A Hmm-mm. [Negative.]

1554 Q It was in a white envelope?

1555 A Yeah I don't know, white or yellow. I don't
1556 remember. And then, when I got down there with it, I handed
1557 it to them. They have you sign a little deal when you go in.

1558 Q Well, before you -- before you move to that point,
1559 he brings it in a white envelope, gives it to you. Yu don't
1560 have any discussions with him about the contents of the
1561 manifest. Is that what you're saying?

1562 A No, I don't think so.

1563 Q As best as you can recall. You mentioned you don't
1564 think so. As best as you can recall, did you have any
1565 discussion with him about the manifest?

1566 A No.

1567 Q Did you look at the manifest?

1568 A No. I didn't look at it until we were down there.
1569 And they said there was some problem with it when we got
1570 there.

1571 Q You didn't look at the manifest before you drove the
1572 material down there?

1573 A No. I should have. I should have. But I didn't.

1574 Q Did you have any discussion with H2O about needing a
1575 permit to drive the --

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1576 A I think initially when we had the conversation about
1577 them leasing the truck, I told them we didn't have any
1578 endorsements on that truck.

1579 Q Meaning what?

1580 A Well, in Idaho, they require a hazardous
1581 endorsement. Two. One that's like a \$12 deal and one that's
1582 -- I think it's \$12. It used to be -- and then another one
1583 that's an actual dump onsite, so many dollars to dump it down
1584 there, if you don't have the annual permit, which is -- you
1585 probably know. It's \$250 or something, isn't it? I don't
1586 know. There's two permits. You get an endorsement on the
1587 truck and then you have a permit for dumping. And if you
1588 don't get the permit, then it's \$20 every time you dump down
1589 there. And I told them that. I said this truck has no
1590 endorsement. Why don't you guys just lease the truck and take
1591 it? And they said, we'll talk to our people. And when they
1592 came back, they said, we're bringing a manifest over. Just
1593 run it down there. So at that point, I'm thinking, well, this
1594 is closed out here, meaning Idaho Waste. It's closed. So
1595 just take it down there and they're just going to dump it.

1596 Q So how -- why didn't you ask about the results when
1597 they brought the manifest or look at the manifest before you
1598 drove it? And I guess the reason why I bring that up is
1599 because you're told by Maureen that she thinks there could be
1600 a problem with the soil. And you felt strongly enough about

1601 what she said that you did not want to dump it out on a tarp
1602 in your yard and you didn't want to do anything with it until
1603 Premium --

1604 A Then H2O tested it.

1605 Q Right, and okay, so Maureen tells you that's one
1606 indication. H2O comes out and tests it again. That's another
1607 indication that there could be a problem with the soil.

1608 A But they didn't want --

1609 Q And when H2O --

1610 A -- to take possession of it.

1611 Q And when H2O comes down and gives you the manifest,
1612 I don't understand I guess -- I need you to explain to us why
1613 you didn't ask them what the results of the test were. Why
1614 all of a sudden did you feel comfortable?

1615 A Because they were involved and they weren't saying -
1616 - and I questioned them. I don't have an endorsement. We
1617 don't have the dump permit. Why don't you guys take the
1618 truck?

1619 Q But did you say what is this? Is it hazardous?

1620 A No.

1621 Q And why not?

1622 A What I just told you.

1623 Q Because they weren't willing to --

1624 A They had taken control of the situation and they
1625 weren't seeming to be worried about it. They weren't saying

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1626 you need -- in fact, I asked, is it placard? Nope.

1627 Q But is that -- is that really the right -- I mean,
1628 Premium hired them to test it. They didn't hire them to take
1629 control of the situation. They hired them just to test the
1630 soil. You were the company that Premium hired to take that
1631 stuff.

1632 A But when I asked them specifically and tell them, I
1633 don't have an endorsement, the truck doesn't have an
1634 endorsement, you guys are -- no, that's not right either. As
1635 soon as they generated a manifest in their name, it was their
1636 stuff, correct?

1637 MR. MUGLESTON: No. There's --

1638 MR. CORDER: They're the generator at that point.

1639 MR. MUGLESTON: Well, so --

1640 MR. CORDER: Is that not right?

1641 MR. [REDACTED] Do you mind? I have to go to the
1642 bathroom real quick.

1643 MR. CORDER: Go ahead.

1644 MR. [REDACTED] Do you mind?

1645 MR. MUGLESTON: Yeah, go ahead.

1646 MR. [REDACTED] Just a one-minute break.

1647 MR. CORDER: They're the generator, correct?

1648 MR. MUGLESTON: Well, the generator is Prime, is the
1649 generator of the -- of the waste. And so, you have to have a
1650 hazmat generator, an ID -- a site-specific EPA.

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1651 MR. CORDER: Okay.

1652 MR. MUGLESTON: So I think -- oh, I need to stand
1653 up. I think everything you've said, you know, about -- so
1654 we've covered a lot of ground. We've covered the first
1655 incident, a little bit on the second incident and now this
1656 incident.

1657 MR. CORDER: Well, this is the second.

1658 MR. MUGLESTON: Let me see. Let me show you the --
1659 all right, so this is the manifest here. Does that look
1660 familiar to you?

1661 MR. CORDER: It's kind of -- I signed it, so I must
1662 have seen it at some point. Yeah, Curt Simmons.

1663 MR. MUGLESTON: All right, and this is actually
1664 documented. This is document numbers 110, just helps me to
1665 remember what we're showing you. So this is the manifest, and
1666 I tell you, Tim, this -- out of everything that we've talked
1667 about, and I don't know if you remember the very first time we
1668 met, we talked about you painting yourself into a corner.
1669 This is the corner that you painted yourself into.

1670 MR. CORDER: I know. I shouldn't have drove it,
1671 seeing this.

1672 MR. MUGLESTON: Yeah, so why is that? Why did you
1673 drive it? And what you told us earlier is not true.

1674 MR. CORDER: About what?

1675 MR. MUGLESTON: That is about the conversation you

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1676 had with H2O. H2O told you -- came out and handed you the
1677 manifest, this was hazardous. That soil was hazardous.

1678 MR. CORDER: I was not told that was hazardous.

1679 MR. MUGLESTON: Yeah, you were. Yeah, you were.

1680 And you were told -- one reasons, here's the hazardous waste.

1681 MR. CORDER: But I didn't look at it.

1682 MR. MUGLESTON: He showed it to you. You signed it.

1683 MR. CORDER: No, you sign it down there.

1684 MR. MUGLESTON: I understand that. But you had seen
1685 this. You knew that that material that you were hauling was
1686 hazardous -- was hazardous material. You have a hazardous
1687 waste manifest to go with that.

1688 MR. CORDER: I didn't look at this, so --

1689 MR. MUGLESTON: Okay, Tim, so we've got to figure
1690 out this. We've got to get to the bottom of this. And that
1691 is H2O is going to take the witness stand and H2O is going to
1692 say that they came out. They handed this. They went over the
1693 manifest with you.

1694 MR. CORDER: Nobody went over a manifest with me.

1695 MR. MUGLESTON: Craig Simmons did.

1696 MR. CORDER: He says.

1697 MR. MUGLESTON: Yeah.

1698 MR. CORDER: Walked in the door and handed -- laid
1699 the manifest on this table.

1700 MR. MUGLESTON: And went over that that was

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1701 hazardous. Your response was that you wanted him to drive the
1702 truck.

1703 MR. CORDER: Earlier.

1704 MR. MUGLESTON: And he said, no, I can't drive the
1705 truck because it's a liability, insurance liability.

1706 MR. CORDER: That was in an earlier conversation. I
1707 asked him to juts take the truck.

1708 MR. MUGLESTON: And he says, no, we can't do that.

1709 MR. CORDER: They said we didn't need to.

1710 MR. MUGLESTON: They said we can't do that.

1711 MR. CORDER: Well, that's not what they told me.

1712 MR. MUGLESTON: And you told us earlier that you
1713 told them that you didn't have your hazmat endorsement.

1714 MR. CORDER: Correct. That's what I just told you
1715 again.

1716 MR. MUGLESTON: That's not according to H2O. Their
1717 sources -- you never told them that. If they had been told
1718 that you didn't have an --

1719 MR. CORDER: Yes, I did. I told them that the truck
1720 did not have an endorsement. We did not have a dump permit to
1721 dump there.

1722 MR. MUGLESTON: then why did you drive it?

1723 MR. CORDER: Because they handed -- poor judgment, I
1724 guess, if you're going to leave it at that. I didn't see the
1725 words hazardous on anything. It was in an envelope when it

1726 came to me. They said here's the paperwork. Take it with
1727 you, as far as I remember.

1728 BY MR. [REDACTED]

1729 Q Okay. Now let me be real clear that we're talking
1730 about the same thing. You're talking about the truck having a
1731 permit, an Idaho state hazmat permit, right?

1732 A It has a --

1733 Q We're talking about both that and --

1734 A And myself.

1735 Q And yourself, yeah.

1736 A Because actually here would be three involved.

1737 You'd have a license endorsement. You would have an annual
1738 truck endorsement for a power unit and then you'd have a dump
1739 -- I don't know what that one's called. But it's a permit for
1740 dumping on the hazardous waste. And yeah, I drove this wrong.
1741 So I shouldn't have.

1742 MR. MUGLESTON: So you're going to have a guy that I
1743 hold up as a well-respected individual --

1744 MR. CORDER: And I'm not?

1745 MR. MUGLESTON: I don't know. That's what I'm
1746 trying to figure out, Tim.

1747 MR. CORDER: Okay.

1748 MR. MUGLESTON: This guy says that he discussed the
1749 sample results with you of that stuff out there, that that
1750 stuff was hazardous. He discussed it with you, the sample

1751 results.

1752 MR. CORDER: What were the sample results?

1753 MR. MUGLESTON: That it was contaminated hazardous
1754 waste with cadmium.

1755 MR. CORDER: I never heard the word cadmium, that I
1756 -- I don't ever remember hearing the word cadmium or any type
1757 of -- I don't.

1758 MR. MUGLESTON: Okay. Well, it would be your word
1759 against his word. But he discussed it with you. He even
1760 handed you a hazardous -- now, think about this. You've got a
1761 hazardous waste manifest. You signed it and you're telling me
1762 you didn't know it was hazardous?

1763 MR. CORDER: I signed it. I signed it down there.

1764 MR. MUGLESTON: I don't care where you signed it at.
1765 So you signed it down there.

1766 MR. CORDER: Oh my God.

1767 BY MR. [REDACTED]

1768 Q You have a -- I mean, the document -- whether you
1769 read it or not --

1770 A All right. So we did that. So what's the deal?

1771 Q Well, it's just -- let me just make this point
1772 clear, I guess, because Darin raises a good point. This is a
1773 hazardous waste manifest. If it's not hazardous waste, you
1774 don't -- you won't -- you would never have been in possession
1775 of one of these to begin with. So you have this. You're in

1776 possession of a hazardous waste manifest prior to driving it
1777 down to U.S. Ecology. Where you signed it, it doesn't seem
1778 all that relevant.

1779 A Okay.

1780 Q Whether you read it, I guess you're telling us that
1781 you didn't read it --

1782 A No, I didn't read it.

1783 Q -- and you didn't know the specific waste.

1784 A No.

1785 Q But you have a hazardous waste manifest. So you
1786 knew it was waste.

1787 A I was assuming that it -- by what their reaction was
1788 to me, that it wasn't that big a deal and, because this dump
1789 was closed, that it was going down there.

1790 Q But you knew that was waste when you drove it down
1791 there?

1792 A Waste.

1793 Q Hazardous waste?

1794 A To some degree, I guess.

1795 MR. MUGLESTON: Tim --

1796 BY MR. [REDACTED]

1797 Q But you have --

1798 A But this one was closed. So I would have taken it
1799 out here.

1800 Q The credibility -- your credibility on this -- on

1801 this incident affects your credibility on the first incident.

1802 A Like I said, I didn't know that it was to the level
1803 that it had to go to that one. The other one was closed.

1804 Q So okay, what -- then in your words, what is a
1805 hazardous waste manifest?

1806 A That.

1807 Q Well, when is it required?

1808 A I thought everything that went into U.S. Ecology had
1809 to have a manifest, whether it was -- in fact, I know it does
1810 because we had to haul contaminated dirt in there that could
1811 have gone to Idaho Waste.

1812 Q Contaminated dirt.

1813 A Yeah, diesel dirt. I could have taken it to Idaho
1814 Waste. The customer chose to take it to U.S. Ecology. So
1815 therefore, we had to have a manifest. It wasn't a hazardous
1816 manifest. It was the same paper that didn't say hazardous.

1817 Q So your argument is going to be that even though you
1818 had a hazardous waste manifest, that it was totally irrelevant
1819 to you and that -- and that because U.S. Ecology can take
1820 nonhazardous material --

1821 A I didn't put any more thought into it, correct.

1822 MR. PARLIN: Have you ever delivered to U.S. Ecology
1823 before this incident?

1824 MR. CORDER: Not myself. My company has.

1825 MR. PARLIN: All right. So your company has. What

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1826 kind of waste have they delivered in the past?

1827 MR. CORDER: Like I said, some contaminated soils
1828 and we've hauled non-contaminated product into them to mix
1829 with other products.

1830 MR. PARLIN: Okay. So like a --

1831 MR. CORDER: And everything, all of that, everything
1832 that goes in there, from my understanding, has a manifest on
1833 it.

1834 MR. PARLIN: Okay. So when you're talking non-
1835 contaminated product, is that product that they use in their
1836 process down there then?

1837 MR. CORDER: Correct, like a PH0, lime or something.

1838 MR. PARLIN: Okay.

1839 BY MR. [REDACTED]

1840 Q You know what, I was talking about the credibility
1841 on both instances. You know, maybe you have a decent -- maybe
1842 you have -- maybe you have a good position on the first
1843 incident. Maybe they never told you and it didn't occur to
1844 you to ask because of all these reasons. And maybe that's
1845 credible. But when we have a situation like this where you
1846 are carrying the hazardous waste manifest with you while you
1847 drive the hazardous waste to U.S. Ecology, I mean, if you
1848 can't come to a place where you can admit that you knew that
1849 it was hazardous waste and you shouldn't have been driving it
1850 with this in front of you, then it affects your credibility on

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1851 the previous incident as well.

1852 A I just told you. I thought because the other one
1853 was closed that it wasn't that hot, that it needed to go to
1854 U.S. Ecology, just that was the landfill that was available.
1855 That was my thought process, right or wrong. That was my
1856 thought at that point. Apparently it was wrong. So now what?
1857 What do we do now?

1858 MR. MUGLESTON: Well, I don't know. I want to find
1859 out why you did it. I want to know if Premium --

1860 MR. CORDER: No.

1861 MR. MUGLESTON: -- told you to do it.

1862 MR. CORDER: No, the only contact -- I never had any
1863 other conversation with Premium. It was all H2O after they
1864 came out here to test it.

1865 MR. MUGLESTON: So Premium never says, hey Tim, get
1866 it down here, we'll pay you a little extra money?

1867 MR. CORDER: Nope. Nope. Nope.

1868 MR. MUGLESTON: Not at all?

1869 MR. CORDER: All we billed was that rental and the
1870 original cleanup minus the disposal.

1871 MR. MUGLESTON: Okay. So was it something that you
1872 -- I mean, if you -- you claim that you have other drivers
1873 that have hazmat endorsements on their licenses, correct?

1874 MR. CORDER: We have, yes.

1875 BY MR. [REDACTED]

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1876 Q Did you at that time?

1877 A Probably did.

1878 MR. MUGLESTON: So was it one of these things that -

1879 - I mean, H2O was very --

1880 MR. CORDER: Specific?

1881 MR. PARLIN: Specific?

1882 MR. MUGLESTON: there you go. Thank you -- that
1883 they came -- I mean, things were happening. You had Premium -
1884 - Irene -- or Maureen told you that you're going to go to
1885 jail, that this -- you know, and you have Premium. They tell
1886 you to shut this thing down, pour it on the ground. I'm not
1887 going to put it on the ground. But now, all of a sudden,
1888 you're going to drive this load.

1889 MR. CORDER: I told you I thought that it was
1890 because that landfill was closed.

1891 MR. MUGLESTON: It had nothing -- now, you just --
1892 now, you know that that landfill doesn't take hazardous waste.
1893 You already told us that.

1894 MR. CORDER: Correct.

1895 MR. MUGLESTON: You know -- your own sister works
1896 down at U.S. Ecology.

1897 MR. CORDER: But they didn't say -- I didn't read
1898 it, okay? I didn't read this when he brought it.

1899 MR. MUGLESTON: But, I know. Tim, think about it.
1900 You just got done telling us that Maureen was threatening you

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1901 to go to jail over the stuff --

1902 MR. CORDER: That was --

1903 MR. MUGLESTON: -- that Premium wanted you to dump
1904 it on the ground. You weren't going to dump it on the ground
1905 because, hell, it's -- I'm not going to get myself in trouble
1906 dumping it on the ground. And this stuff is -- it smells bad.
1907 It looks bad. It tastes bad. Something is bad and now all of
1908 a sudden, hell, I'm going to just drive it down there without
1909 hazmat endorsement?

1910 MR. [REDACTED] And in addition --

1911 MR. CORDER: So we're worried -- you guys are more
1912 worried about me driving it from here to there than how this
1913 all happened?

1914 MR. [REDACTED] That's -- this is a part of what we're
1915 worried about and we've got to get the truth about this part
1916 in addition to the truth about all the other parts.

1917 MR. MUGLESTON: We want to know if Premium told you
1918 that.

1919 MR. CORDER: No. Premium never told me anywhere to
1920 take it, never any conversation, never any written anything,
1921 no text, no nothing.

1922 MR. MUGLESTON: Did B&W? Did Sandy?

1923 MR. CORDER: No. U.S. -- or excuse me --

1924 MR. MUGLESTON: H2O.

1925 MR. CORDER: H2O brought me this and said it goes to

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1926 U.S. Ecology.

1927 BY MR. [REDACTED]

1928 Q It's not H2O's job to make sure that you can do
1929 that. H2O was hired to sample. I mean, so going back --

1930 A We should have had somebody else come and get the
1931 truck and drive it, correct. Now, we know that and we should
1932 have known that.

1933 Q But I think you -- I mean, this is important. We
1934 think you should have known that then. We think you did know
1935 that then. I don't see how you couldn't have known that.
1936 Maureen tells you. You refuse to dump it. H2O comes out and
1937 tests it. After testing it, you say they didn't tell you the
1938 results. But after testing it, they bring you a hazardous
1939 waste manifest?

1940 A They probably -- the manifest --

1941 Q Why would they bring you a hazardous waste manifest?

1942 A I didn't read the hazardous. They brought me a
1943 manifest.

1944 Q Well, it doesn't matter if you read it. They
1945 brought you a hazardous waste manifest.

1946 A I just got done telling you I've had other jobs
1947 taken down there that all had manifest that were all non-
1948 hazardous to the same landfill.

1949 MR. PARLIN: My question, I'm just going to put it
1950 as simple and I'm just going to lay it out as best I can. I

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1951 knew -- I mean, from hearing all this, I know you had a big
1952 headache going on. This was a huge headache. Is that
1953 correct?

1954 MR. CORDER: Correct. I should have just backed out
1955 of it.

1956 MR. PARLIN: Did you just want to -- did you just
1957 take it down there because you wanted to get rid of it?

1958 MR. CORDER: No. That's where we were told to take
1959 it.

1960 MR. PARLIN: Okay.

1961 MR. CORDER: And yeah, I wanted done with the
1962 problem. But it wasn't -- I just didn't think enough through
1963 that.

1964 MR. MUGLESTON: Why did you have -- wanted H2O to
1965 take it?

1966 MR. CORDER: I told them if it was a problem, they
1967 needed to take it.

1968 MR. MUGLESTON: And they said they can't take it.

1969 MR. CORDER: They said they'd talk to their people
1970 and said don't worry about it.

1971 MR. MUGLESTON: No, they didn't.

1972 MR. CORDER: We don't want to lease it on.

1973 MR. MUGLESTON: yeah, because they don't want the
1974 liability. And why did you still take it? That's the
1975 problem. You're asking us a question. Are we more concerned

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1976 about this than what -- about the other stuff. We're
1977 concerned about everything. We are concerned over this
1978 because honestly, I don't believe you've told us the truth on
1979 this and that's what bothers me more than anything.

1980 MR. CORDER: I have --

1981 MR. MUGLESTON: If you just say -- listen, I took it
1982 down, because you know why, I'm friggin' lazy and I wanted to
1983 get this thing out of my hair --

1984 MR. CORDER: No.

1985 MR. MUGLESTON: -- and get it down there and get it
1986 over with.

1987 MR. CORDER: I am not lazy by any means. I just
1988 didn't think through that, okay? I didn't think through it
1989 enough to think that it was hazardous to the level that we --
1990 because I asked does it need placards. Nope, don't need any
1991 placards.

1992 MR. MUGLESTON: Who did you ask?

1993 MR. CORDER: H2O.

1994 MR. MUGLESTON: H2O would have told you that it
1995 needed placards.

1996 MR. CORDER: They said, no, it doesn't need
1997 placards.

1998 MR. MUGLESTON: You're telling me for the record
1999 that you told -- asked H2O does this need to be placarded?

2000 MR. CORDER: Correct.

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2001 MR. MUGLESTON: And H2O said, you know, it does not
2002 need to be placarded?

2003 MR. CORDER: They said it doesn't need placards.

2004 MR. MUGLESTON: You know we're going to go back to
2005 H2O?

2006 MR. CORDER: I don't care. That's what they told
2007 me, man, when I called -- when I asked them. I said, does
2008 this need placards? No.

2009 MR. MUGLESTON: Okay, and what else did you say?

2010 MR. CORDER: I don't -- I don't know what else, all
2011 the little -- I don't know.

2012 MR. MUGLESTON: Okay. This is where we're at.

2013 MR. CORDER: I didn't have enough -- I mean, I
2014 screwed up and drove it. That's obvious. But I had no intent
2015 to do anything that was for anybody else, any advantage to
2016 anybody else.

2017 MR. MUGLESTON: Except for you.

2018 MR. CORDER: How was it an advantage to me?

2019 MR. MUGLESTON: You're going to get paid for it and
2020 you're going to get it down there.

2021 MR. CORDER: I was getting paid for it to sit out
2022 here.

2023 MR. MUGLESTON: But that little gravy train was
2024 going to come to an end that day. So either you had to go and
2025 find some way to haul it down there with the hazmat --

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2026 MR. CORDER: I should have had somebody else drive
2027 it down there, correct.

2028 MR. MUGLESTON: I want to know why you didn't. is
2029 it because --

2030 MR. CORDER: Because I didn't. I don't have a good
2031 reason. I don't have a legitimate answer that I didn't.

2032 MR. MUGLESTON: And Prime didn't tell you, or
2033 Premium --

2034 MR. CORDER: I never spoke to Prime at all.

2035 BY MR. [REDACTED]

2036 Q Do you believe you should have had somebody else
2037 drive it down there at that time?

2038 A No. Now I do.

2039 Q So you're saying now, only after we've presented all
2040 of this to you, which you already lived through. You lived
2041 through all of this. We're not giving you any new
2042 information.

2043 A Correct.

2044 Q We haven't come to you with anything, any outside
2045 information that you didn't know about.

2046 A Correct.

2047 Q You had all of this at your disposal. You could
2048 have read this. You could have asked questions.

2049 A And I didn't.

2050 Q And you didn't. And so, only now, after it seems

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2051 like it's a big deal, are you saying that you knew or should
2052 have known?

2053 A Should have known. Should have read it. Should
2054 have opened it up, read it.

2055 MR. MUGLESTON: That do you think we -- what do you
2056 think should happen on this, Tim? Honestly, what's your --

2057 MR. CORDER: I don't know. I don't know what the
2058 penalty is for driving a hazardous load. I don't know. I
2059 don't. I didn't do it to benefit anybody, to hurt anybody, to
2060 -- I wasn't told by anyone to do it. Just didn't put enough
2061 thought in it when they -- when I was told what I was told.
2062 That's all there is to that.

2063 BY MR. [REDACTED]

2064 Q Okay. But you don't know what the penalty is. Do
2065 you know that it's illegal to drive hazardous material?

2066 A Well, I assume it's illegal or you would have --

2067 Q -- without a hazardous materials endorsement.

2068 A Correct.

2069 Q Is that yes or no? You know it's illegal?

2070 A Yes.

2071 Q I guess what it seems to me like, if you're telling
2072 the truth that you didn't read it --

2073 A I didn't read it.

2074 Q And that you didn't ask any questions, it strikes me
2075 as kind of -- you had all the information you needed to have

2076 to make the right decision. There's a legal term called --
2077 what, is it deliberate indifference or conscious disregard?
2078 And it seems to me like you had all of this information and
2079 you deliberately chose to ignore it. And I don't know what --
2080 you asked Darin and I, the detective, what the consequences
2081 are. I don't know that we can answer something like that
2082 until we find out what happened.

2083 A Well, you know what happened with this. It got
2084 driven down there. It went to the correct landfill.

2085 MR. MUGLESTON: Yeah, it did.

2086 MR. CORDER: I mean, at least it's not somewhere
2087 it's not supposed to be, right?

2088 MR. MUGLESTON: That's -- that is a huge one.

2089 MR. PARLIN: That's a huge --

2090 MR. CORDER: So I should have read that. I agree.
2091 Should have, should have, should have. Didn't. There we are.

2092 MR. PARLIN: Have you ever had any kind of hazmat
2093 training, any hazmat courses in school, anything like that?

2094 MR. CORDER: Yeah, we have haz walker 40-hour
2095 training.

2096 MR. PARLIN: Okay. So through -- having been to
2097 that training, did you -- one of the main takeaways from that
2098 training is a possible health hazard. Did you -- I mean, did
2099 you even think this stuff could be hazardous to you?

2100 MR. CORDER: Like I said, there were some other

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2101 thoughts in there. Whether you want to believe them or not,
2102 Darin, is -- I thought that after it was all settled, it was
2103 going to go to Idaho Waste. That dump was still closed.

2104 MR. PARLIN: Okay.

2105 MR. CORDER: They show up here with this. They just
2106 take it down there. They were told I do not have
2107 endorsements. I do not have a truck endorsement. I'm not
2108 paying for it. I don't have it.

2109 MR. PARLIN: Okay. I might have -- I might have
2110 missed this. You signed it. He signed it. Am I correct in
2111 guessing that somebody handed this to you personally?

2112 MR. CORDER: This was in an envelope. And when I
2113 got down here, we opened the envelope and they had me sign
2114 here as the deliverer.

2115 MR. PARLIN: You signed after you took that down
2116 there?

2117 MR. CORDER: Correct.

2118 MR. PARLIN: Who handed this --

2119 MR. CORDER: I think I did. I know this one.

2120 MR. MUGLESTON: That's the permit.

2121 MR. [REDACTED] That's the permit.

2122 MR. PARLIN: Okay. Where did you actually get that
2123 envelope from that the hazmat was contained in?

2124 MR. CORDER: The -- Craig or someone walked in this
2125 and that's the part -- I guess I know I signed that one down

2126 there because you have to.

2127 MR. PARLIN: No, I'm good.

2128 MR. MUGLESTON: This is --

2129 MR. CORDER: I guess I don't remember. If you want
2130 to back up, I know that we signed that one down there and I
2131 don't remember. There was an envelope brought in here and I
2132 don't know, because I had to bring -- let's see. How did we
2133 get it back to him? I didn't leave it down there. I don't
2134 remember how I got it back to him even.

2135 MR. PARLIN: But you did have this piece of paper
2136 with you when you transported it?

2137 MR. CORDER: I think so, yes.

2138 MR. PARLIN: Okay.

2139 BY MR. [REDACTED]

2140 Q And we're not arguing that you're in the business of
2141 illegally transporting hazmat.

2142 A No, no. I'd like to -- if I knew what I knew now, I
2143 would have just taken it back where I got it and dumped it.

2144 Q But I think what we are struggling with is, you
2145 know, we have to do a thorough job. If we didn't do a
2146 thorough job, then we wouldn't have the jobs that we have.
2147 And it's important for us to know -- to get to why you did
2148 this.

2149 A It was just a bad decision.

2150 Q And we're having a hard time ultimately and

2151 ultimately I think we're all having a hard time understanding
2152 or accepting that your answer is just because you didn't read
2153 it. Given all the surrounding -- or all of the preceding
2154 events that are indicators that that's hazardous waste and
2155 that you can't drive that and you know that you can't drive
2156 it.

2157 MR. PARLIN: One of the things I like to do as a
2158 detective -- I like to understand the thought process and I
2159 have always liked to understand the thought process when I was
2160 a patrolman. For instance, on a DUI, if I'd pick somebody up
2161 for DUI, I'd like to get to the bottom of it, whether it's a
2162 decision where I didn't think I was that bad or I've done it
2163 before and I didn't get caught, so I figured I'd go ahead and
2164 throw the dice, that's what we're trying to do here. We're
2165 just trying to understand the thought process.

2166 MR. CORDER: Well, we've never hauled hazardous
2167 before. I never have. And my thought was incorrect, but that
2168 it was just going out here. That was closed. I'm going to
2169 take it down there.

2170 MR. PARLIN: Just to -- just to get it off your
2171 hands?

2172 MR. CORDER: Get it off the truck, be done with it.
2173 I knew that if it's going to that landfill, there can't be any
2174 further questions because they could take anything. So it's
2175 going down there and it's going to be done.

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2176 MR. PARLIN: Okay.

2177 MR. CORDER: I should have had somebody else haul it
2178 as soon as it went there. I should have said, no, let's have
2179 somebody else do it. I just didn't, so --

2180 MR. PARLIN: Well, hindsight is always 20/20 and we
2181 always look back at, you know, what we could have done, so --

2182 MR. CORDER: I don't have -- I mean, you guys
2183 probably have already pulled the records. We don't have
2184 anything -- I don't do anything wrong. I don't have any
2185 intent to go out and do anything. So it was just a poor
2186 decision that day.

2187 MR. MUGLESTON: I can buy the poor decision, Tim.

2188 MR. CORDER: It was.

2189 MR. MUGLESTON: But what I can't buy -- if you
2190 remember, I said it this morning, I said it the first time,
2191 what is the most important thing for you to do before us?

2192 MR. CORDER: The truth.

2193 MR. MUGLESTON: The truth, and we're -- I'm
2194 struggling. I mean, I am really struggling on this, Tim, is
2195 that if you just came out and say it was a poor decision, I
2196 would be fine with that. But you have -- you have said a
2197 couple of things that have really bothered me. And that is,
2198 one, remember, we've talked to a number of people.

2199 MR. CORDER: Okay.

2200 MR. MUGLESTON: Okay, and we've talked to H2O.

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2201 MR. CORDER: And they didn't say that I asked them
2202 to lease it if it was bad?

2203 MR. MUGLESTON: No. They admit that you asked them.
2204 But they said, no, we can't. We're not leasing that because
2205 they have liability. They can't -- they can't take that truck
2206 because of their own insurance and liability, okay?

2207 MR. CORDER: Well, I never was told that.

2208 MR. MUGLESTON: They said that they cannot do that.
2209 But what you have told us a number of times is that you told
2210 them that you didn't have your endorsement, okay?

2211 MR. CORDER: That's this one.

2212 MR. MUGLESTON: No, no --

2213 MR. CORDER: The truck permit, all of them --

2214 MR. MUGLESTON: That's the truck permit. You didn't
2215 have your hazardous waste endorsement on your CDL that allows
2216 you as a person to drive that. You never told them that.
2217 Their response would have been if you didn't -- if you didn't
2218 have a license to drive that, they would have told you, you
2219 cannot drive that. You told us that it's okay -- that H2O
2220 said, oh, it's okay. You can go ahead and drive it. That is
2221 not the case. If they knew --

2222 MR. CORDER: I asked about placards and they said
2223 there wouldn't be any placards on this.

2224 MR. MUGLESTON: There is -- there's no way that you
2225 asked them that. They would have told you that you would have

2226 needed placards.

2227 MR. CORDER: Well, I did and that's what they said.

2228 MR. MUGLESTON: And that's where I'm struggling.

2229 It's like we've just came right to a roadblock.

2230 MR. CORDER: Because I would have had them bring
2231 placards in association with this.

2232 MR. MUGLESTON: They would have been more than happy
2233 to bring you placards.

2234 MR. CORDER: If they would have --

2235 MR. MUGLESTON: They would have been more than happy
2236 to give you placards.

2237 MR. CORDER: Well, if they would have, we never
2238 would have left with it. I never would have left the yard
2239 with it if it would have had placards, if they'd have brought
2240 placards.

2241 BY MR. [REDACTED]

2242 Q Well, there's always some other thing though, that
2243 if they just -- if they had just done this, they brought you
2244 the hazardous waste --

2245 A All right. I told you once and enough. It was a
2246 poor decision.

2247 Q We all --

2248 A That's all it was, man.

2249 Q We all agree --

2250 A There was no nothing to Premium or Prime or any of

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2251 it. It was a poor decision my part. Maybe -- I mean, I make
2252 some sometimes. I've got a lot going on. So I made a poor
2253 choice to drive it down there, period.

2254 MR. PARLIN: So did in fact H2O tell you to get rid
2255 of it?

2256 MR. MUGLESTON: Yeah, that's a great question.

2257 MR. PARLIN: I mean, I just --

2258 MR. CORDER: Get rid of it?

2259 MR. PARLIN: Yeah, get rid of the load, get it off
2260 your hands. Did --

2261 MR. CORDER: No, they said, here it is, it can leave
2262 and go down there.

2263 MR. PARLIN: Okay. But --

2264 MR. CORDER: And they scheduled a time for it to
2265 unload.

2266 MR. PARLIN: But they didn't tell you to juts -- Mr.
2267 Corder, just go ahead and get in and drive it.

2268 MR. CORDER: They said it's scheduled for x amount
2269 of time in the afternoon to be dumped.

2270 MR. PARLIN: Okay. Okay. So is that a yes or a no?
2271 Did they tell you, you personally -- did somebody direct you
2272 to drive that load down to U.S. Ecology?

2273 MR. CORDER: No. No one directed me personally.

2274 MR. PARLIN: Okay.

2275 MR. [REDACTED] I don't have anything else.

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2276 MR. MUGLESTON: Fair enough.

2277 MR. PARLIN: All right. Well, with any
2278 investigation that I do on behalf of the sheriff's office, I
2279 don't know about these fellows, but I'm sure it's the same.
2280 You can't talk -- anything spoken about between us and you
2281 today is strictly confidential. You cannot share any of that
2282 information with anybody besides a lawyer, your lawyer. You
2283 understand that, sir?

2284 MR. CORDER: Yes.

2285 MR. PARLIN: Okay.

2286 MR. MUGLESTON: We went around that pole a couple of
2287 times. Do you have any questions for us, Tim?

2288 MR. CORDER: No, I just want it done and whatever
2289 you're going to do, let's be done with it.

2290 MR. MUGLESTON: Okay.

2291 MR. CORDER: It's -- I told you, a poor decision. I
2292 make a few once in a while. So it went to the right landfill.

2293 MR. MUGLESTON: Yes.

2294 MR. CORDER: We're good there.

2295 MR. MUGLESTON: We're very good there. And what's
2296 more important, what's also important is that the best of your
2297 recollection is that when you were talking to Premium, the
2298 Premium never discussed with you that there was paint out
2299 there. They didn't want you to do any sampling.

2300 MR. CORDER: There was no sampling or you would see

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2301 it on the quote. And I -- I mean, there's other quotes that
2302 we do that exclude it or list it as other pricing type items,
2303 items to be priced out and --

2304 MR. MUGLESTON: And to the best of your
2305 recollection, Premium never said we need to go out there and
2306 clean up a paint spill?

2307 MR. CORDER: No, because at the end of it, they
2308 said, well, that ain't hazardous, with Doreen. I mean, that
2309 was their exact phrase. That is not hazardous. It's burned
2310 up paint and containers.

2311 MR. MUGLESTON: Okay, and you think that was Jamie?

2312 MR. CORDER: I believe so.

2313 MR. MUGLESTON: Okay. Could you do us another
2314 favor? And that is could you look at your emails and find
2315 what emails you might have sent to Premium or B&W or any of
2316 the emails related to this?

2317 MR. CORDER: Well, there was no emails to B&W.

2318 MR. PARLIN: Any written correspondence of any type
2319 that you recall?

2320 MR. MUGLESTON: That got bid.

2321 MR. CORDER: No. To B&W or to any of them, no.

2322 MR. MUGLESTON: Like that bid, that you send a bid.

2323 MR. CORDER: I can look. Yeah, I can look back and
2324 see what we had for a quote.

2325 MR. MUGLESTON: And maybe who that would have went

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2326 to, like did it go to Jamie or it went to Tom or something --

2327 MR. CORDER: No, it would have went to that Tom.

2328 MR. MUGLESTON: Okay. But --

2329 MR. CORDER: Because he was the lead guy that --

2330 MR. MUGLESTON: Tom was? What made you think you
2331 were talking to Jamie, that Jamie said that is not hazardous?

2332 MR. CORDER: Well, Tom was gone. Tom was gone to
2333 training and I said, well, I'll talk to somebody.

2334 MR. MUGLESTON: And that's when Jamie got on the
2335 phone?

2336 MR. CORDER: Correct.

2337 MR. MUGLESTON: And do you know what's Jamie's
2338 position or anything like that? You just know it was Jamie?

2339 MR. CORDER: Yeah. He said -- when I asked, I said,
2340 well, I need his counterpart or whatever. You know, somebody
2341 like Tom.

2342 MR. MUGLESTON: And would that be on your cellphone
2343 records? Okay.

2344 MR. CORDER: Yeah, I would have called him from a
2345 phone, cellphone.

2346 MR. MUGLESTON: Okay. Okay. [REDACTED] anything?

2347 MR. [REDACTED] No, I'm done.

2348 MR. PARLIN: I'm good to go.

2349 MR. MUGLESTON: Detective?

2350 MR. PARLIN: Mr. Corder, thanks for speaking with us

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2351 today.

2352 MR. CORDER: There won't be another one of those
2353 poor decisions, I can tell you that.

2354 MR. MUGLESTON: There won't be what?

2355 MR. CORDER: I said there won't be another one of
2356 those poor decisions, I can tell you that.

2357 MR. PARLIN: If for no other reason, you know, I've
2358 been through some training. I didn't end up getting my
2359 degree. But I have been through some college courses, some
2360 training in occupational safety and health and with a minor in
2361 environmental. One of my big things that I'm concerned with,
2362 you've seen the movie *Erin Brockovich* before, where PG&E
2363 knowingly exposed these workers to hazardous material? A lot
2364 of people got sick. A lot of people died. I am an advocate
2365 for people protecting themselves. So what I am going to tell
2366 you, if you go out to that dump or if you go anywhere and you
2367 deal with any unknown substance, it's best for you to gain as
2368 much knowledge as you can so that you can be armed with being
2369 able to protect yourself because you don't need to breathe
2370 asbestos and then come up five or 10 years later with
2371 mesothelioma. You don't need any of the other stuff. You
2372 don't need, you know, cancer cells in your brain or anything
2373 like that. You don't need that stuff and you have -- you have
2374 a family or loved ones that you need to stick around for. So
2375 that's extremely important. I mean, I'm a Gulf War veteran.

2376 I've got Gulf War syndrome from being over there because it
2377 was who knows what. The VA's paying me for it. But no amount
2378 of pay in the world equates to respiratory problems for the
2379 rest of my life. So I want you to protect yourself and to do
2380 so, you need to really, you know, make sure you're smart on
2381 what you're hauling and what you're working with.

2382 MR. CORDER: Well, we just -- we just -- I'm not
2383 going to mess with it anymore.

2384 MR. PARLIN: Okay.

2385 MR. CORDER: I'm just not going to do it. We just
2386 aren't going to do it for several reasons. But honestly,
2387 Darin, there was nothing other than a poor decision. I
2388 shouldn't have done it. There we are. I mean --

2389 MR. MUGLESTON: Okay. Okay.

2390 MR. PARLIN: I'm good.

2391 MR. MUGLESTON: All right. And again, no other
2392 further questions from you on this? Okay. I'm going to go
2393 ahead and turn -- we'll just conclude this interview. Again,
2394 Tim, can't thank you enough for allowing us to come out and
2395 deal with -- talk with you today. Again, everything you've
2396 said is true and accurate?

2397 MR. CORDER: To the best of my knowledge.

2398 MR. MUGLESTON: Okay. We'll go ahead and conclude
2399 this. It's 1:04.

2400

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2404 (Whereupon, at 1:04 p.m., the interview of

2405 TIM CORDER was concluded.)

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CERTIFICATE OF TRANSCRIBER

I, BENJAMIN GRAHAM, do hereby certify that this transcript was prepared from audio to the best of my ability.

I am neither counsel for, related to, nor employed by any of the parties to this action, nor financially or otherwise interested in the outcome of this action.



10/17/2016

Benjamin Graham

SAFETY DATA SHEET



Date of issue/Date of revision 23 June 2016

Version 4

Section 1. Identification

Product name : 6431D BACKR 4
Product code : 137D40
Other means of identification : Not available.
Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Product use : Industrial applications.
Use of the substance/ mixture : Coating. Paints, Painting-related materials.
Uses advised against : Not applicable.

Supplier : PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272

Emergency telephone number : (412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
01-800-00-21-400 (Mexico)

Technical Phone Number : (724) 274-7900 (SPRINGDALE, PA) 8:00 a.m. - 5:00 p.m. EST

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 3
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
CARCINOGENICITY - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 36.3%

GHS label elements

Hazard pictograms



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Section 2. Hazards identificationSignal word : **Danger**

Hazard statements : Flammable liquid and vapor.
Causes serious eye damage.
Suspected of causing cancer.
May cause drowsiness and dizziness.
May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Do not breathe vapor.

Response : Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.

Storage : Store locked up. Store in a well-ventilated place. Keep cool.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements : Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. 1-component mixtures: formaldehyde is released during curing. Formaldehyde may cause irreversible effects, is irritating to the mucous membranes and may cause skin sensitization. Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated.

Hazards not otherwise classified : Prolonged or repeated contact may dry skin and cause irritation.

Section 3. Composition/information on Ingredients

Substance/mixture : Mixture

Product name : 6431D BACKR 4

Ingredient name	%	CAS number
Solvent naphtha (petroleum), heavy arom.	≥18 - <25	64742-84-5
titanium dioxide	≥10 - <25	13463-67-7
2-butoxyethanol	≥3 - <3.7	111-76-2
butan-1-ol	≥2.1 - <3	71-36-3
naphthalene	≥1 - <3	91-20-3
2-methylpropan-1-ol	≥1 - <1.5	78-83-1

SUB codes represent substances without registered CAS Numbers.

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Section 3. Composition/information on ingredients

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

- | | |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Eye contact | : Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention. |
| Inhalation | : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. |
| Skin contact | : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners. |
| Ingestion | : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting. |

Most important symptoms/effects, acute and delayed

Potential acute health effects

- | | |
|--------------|------------------------------------------------------------------------------------------|
| Eye contact | : Causes serious eye damage. |
| Inhalation | : Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness. |
| Skin contact | : Defatting to the skin. May cause skin dryness and irritation. |
| Ingestion | : Can cause central nervous system (CNS) depression. |

Over-exposure signs/symptoms

- | | |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Eye contact | : Adverse symptoms may include the following:
pain
watering
redness |
| Inhalation | : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness |
| Skin contact | : Adverse symptoms may include the following:
pain or irritation
redness
dryness
cracking
blistering may occur |
| Ingestion | : Adverse symptoms may include the following:
stomach pains |

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Section 4. First aid measures

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

Specific hazards arising from the chemical : Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
metal oxide/oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

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Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flames, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

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Section 7. Handling and storage

- Special precautions** : Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Vapors are heavier than air and may spread along floors. If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Do not store above the following temperature: 35°C (95°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Solvent naphtha (petroleum), heavy arom. titanium dioxide	None. OSHA PEL (United States, 2/2013). TWA: 15 mg/m ³ 8 hours. Form: Total dust ACGIH TLV (United States, 4/2014).
2-butoxyethanol	TWA: 10 mg/m ³ 8 hours. ACGIH TLV (United States, 4/2014). TWA: 20 ppm 8 hours. OSHA PEL (United States, 2/2013). Absorbed through skin. TWA: 240 mg/m ³ 8 hours. TWA: 50 ppm 8 hours.
butan-1-ol	ACGIH TLV (United States, 4/2014). TWA: 20 ppm 8 hours. OSHA PEL (United States, 2/2013). TWA: 300 mg/m ³ 8 hours. TWA: 100 ppm 8 hours.
naphthalene	ACGIH TLV (United States, 4/2014). Absorbed through skin. TWA: 52 mg/m ³ 8 hours. TWA: 10 ppm 8 hours. OSHA PEL (United States, 2/2013). TWA: 50 mg/m ³ 8 hours. TWA: 10 ppm 8 hours.
2-methylpropan-1-ol	ACGIH TLV (United States, 4/2014). TWA: 152 mg/m ³ 8 hours.

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Section 8. Exposure controls/personal protection

TWA: 50 ppm 8 hours.
 OSHA PEL (United States, 2/2013).
 TWA: 300 mg/m³ 8 hours.
 TWA: 100 ppm 8 hours.

Key to abbreviations

A	= Acceptable Maximum Peak	S	= Potential skin absorption
ACGIH	= American Conference of Governmental Industrial Hygienists	SR	= Respiratory sensitization
C	= Ceiling Limit	SS	= Skin sensitization
F	= Fume	STEL	= Short term Exposure limit values
IPEL	= Internal Permissible Exposure Limit	TD	= Total dust
OSHA	= Occupational Safety and Health Administration	TLV	= Threshold Limit Value
R	= Respirable	TWA	= Time Weighted Average
Z	= OSHA 29CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances		

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Chemical splash goggles and face shield.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Gloves : For prolonged or repeated handling, use the following type of gloves:

Recommended: nitrile rubber, butyl rubber

Section 8. Exposure controls/personal protection

- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Section 9. Physical and chemical properties**Appearance**

- Physical state** : Liquid.
- Color** : Not available.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : Not available.
- Boiling point** : >37.78°C (>100°F)
- Flash point** : Closed cup: 28.89°C (84°F)
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Lower: 1.1%
- Evaporation rate** : 0.18 (butyl acetate = 1)
- Vapor pressure** : 0.85 kPa (4.9 mm Hg) [room temperature]
- Vapor density** : Not available.
- Relative density** : 1.21
- Density (lbs / gal)** : 10.1
- Solubility** : Insoluble in the following materials: cold water.
- Partition coefficient: n-octanol/water** : Not available.
- Viscosity** : Kinematic (40°C (104°F)): >0.21 cm²/s (>21 cSt)
- Volatility** : 50% (w/v), 38.42% (w/w)
- % Solid. (w/w)** : 63.58

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Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.
Incompatible materials	: Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.
Hazardous decomposition products	: Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Solvent naphtha (petroleum), heavy arom.	LD50 Dermal	Rabbit	>1.693 g/kg	-
	LD50 Oral	Rat	3.2 g/kg	-
titanium dioxide	LD50 Oral	Rat	>10 g/kg	-
2-butoxyethanol	LD50 Dermal	Rabbit	220 mg/kg	-
	LD50 Oral	Rat	250 mg/kg	-
butan-1-ol	LC50 Inhalation Vapor	Rat	24000 mg/m ³	4 hours
	LC50 Inhalation Vapor	Rat	8000 ppm	4 hours
	LD50 Dermal	Rabbit	3400 mg/kg	-
	LD50 Oral	Rat	790 mg/kg	-
naphthalene	LD50 Dermal	Rabbit	>20 g/kg	-
	LD50 Oral	Rat	490 mg/kg	-
2-methylpropan-1-ol	LC50 Inhalation Vapor	Rat	6500 mg/m ³	4 hours
	LD50 Dermal	Rabbit	2 g/kg	-
	LD50 Oral	Rat	2460 mg/kg	-

Conclusion/Summary : There are no data available on the mixture itself.

Irritation/Corrosion

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Eyes : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Sensitization

Conclusion/Summary

Skin : There are no data available on the mixture itself.

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Section 11. Toxicological information

Respiratory : There are no data available on the mixture itself.

Mutagenicity

Conclusion/Summary : There are no data available on the mixture itself.

Carcinogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Classification

Product/ingredient name	OSHA	IARC	NTP
Titanium dioxide	-	2B	-
2-butoxyethanol	-	3	-
naphthalene	-	2B	Reasonably anticipated to be a human carcinogen.

Carcinogen Classification code:

IARC: 1, 2A, 2B, 3, 4

NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen

OSHA: *

Not listed/not regulated: -

Reproductive toxicity

Conclusion/Summary : There are no data available on the mixture itself.

Teratogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Specific target organ toxicity (single exposure)

Name	Category
Solvent naphtha (petroleum), heavy arom.	Category 3
butan-1-ol	Category 3
2-methylpropan-1-ol	Category 3

Specific target organ toxicity (repeated exposure)

Name	Category
2-butoxyethanol	Category 2
naphthalene	Category 2

Target organs : Contains material which causes damage to the following organs: brain.
Contains material which may cause damage to the following organs: blood, kidneys, lungs, liver, spleen, lymphatic system, upper respiratory tract, skin, bone marrow, central nervous system (CNS), ears, eye, lens or cornea.

Aspiration hazard

Name	Result
Solvent naphtha (petroleum), heavy arom.	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

Potential acute health effects

Eye contact : Causes serious eye damage.
Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness.
Skin contact : Defatting to the skin. May cause skin dryness and irritation.

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Section 11. Toxicological information

Ingestion : Can cause central nervous system (CNS) depression.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain
watering
redness

Inhalation : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
dryness
cracking
blistering may occur

Ingestion : Adverse symptoms may include the following:
stomach pains

Delayed and immediate effects and also chronic effects from short and long term exposure

Conclusion/Summary : There are no data available on the mixture itself. 1-component mixtures: formaldehyde is released during curing. Formaldehyde may cause irreversible effects, is irritating to the mucous membranes and may cause skin sensitization. Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Short term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Long term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Potential chronic health effects

General : May cause damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

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Section 11. Toxicological information

Carcinogenicity	: Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	2821.8 mg/kg
Dermal	2510.2 mg/kg
Inhalation (gases)	95110 ppm
Inhalation (vapors)	135.6 mg/l
Inhalation (dusts and mists)	31.7 mg/l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Aluminum dioxide	Acute LC50 >100 mg/l Fresh water	Daphnia - Daphnia magna	48 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
2-butoxyethanol	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
2-butoxyethanol	0.81	-	low
butan-1-ol	0.88	-	low
naphthalene	3.3	85.11	low
2-methylpropan-1-ol	0.76	-	low

Mobility in soil

Soil/water partition coefficient (K _{oc})	: Not available.
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Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 9. Accidental release measures

14. Transport information

	DOT	IMDG	IATA
UN number	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT
Transport hazard class(es)	3	3	3
Packing group	III	III	III
Environmental hazards	No.	Yes.	No.
Marine pollutant substances	Not applicable.	(Solvent naphtha (petroleum), heavy aromatic, naphthalene)	Not applicable.
Product RQ (lbs)	3639.9	Not applicable.	Not applicable.
RQ substances	(naphthalene, xylene)	Not applicable.	Not applicable.

Additional information

DOT : Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.

IMDG : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.

IATA : The environmentally hazardous substance mark may appear if required by other transportation regulations.

Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

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Section 15. Regulatory information

United States

United States Inventory (TSCA 8b) : All components are listed or exempted.

U.S. Federal regulations :

SARA 302/304

SARA 304 RQ : Not applicable.

Composition/information on ingredients

No products were found.

SARA 311/312

Classification : Fire hazard
Immediate (acute) health hazard
Delayed (chronic) health hazard

Composition/information on ingredients

Name	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Solvent naphtha (petroleum), heavy arom.	Yes.	No.	No.	Yes.	No.
titanium dioxide	No.	No.	No.	No.	Yes.
2-butoxyethanol	Yes.	No.	No.	Yes.	Yes.
butan-1-ol	Yes.	No.	No.	Yes.	No.
naphthalene	Yes.	No.	Yes.	Yes.	Yes.
2-methylpropan-1-ol	Yes.	No.	No.	Yes.	No.

SARA 313

	Chemical name	CAS number	Concentration
Supplier notification	2-butoxyethanol	111-76-2	1 - 5
	butan-1-ol	71-36-3	1 - 5
	naphthalene	91-20-3	1 - 5

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health : 3 * Flammability : 3 Physical hazards : 0

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-4668.

The customer is responsible for determining the PPE code for this material.

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Section 16. Other information

National Fire Protection Association (U.S.A.)

Health : 3 Flammability : 3 Instability : 0

Date of previous issue : 6/5/2015

Organization that prepared the MSDS : EHS

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

✓ Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.

SAFETY DATA SHEET



Date of Issue/Date of revision 3 July 2016
Version 4

Section 1. Identification

Product name : FG CLR PC3200 4
Product code : B123C24
Other means of identification : Not available.
Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Product use : Industrial applications.
Use of the substance/mixture : Coating. Paints. Painting-related materials.
Uses advised against : Not applicable.

Supplier : PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272

Emergency telephone number : (412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
01-800-00-21-400 (Mexico)

Technical Phone Number : (724) 274-7800 (SPRINGDALE, PA) 8:00 a.m. - 5:00 p.m. EST





Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 3
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
CARCINOGENICITY - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 40.2%

GHS label elements

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Section 2. Hazards identification

Hazard pictograms	:    
Signal word	: Danger
Hazard statements	: Flammable liquid and vapor. Causes serious eye damage. Causes skin irritation. Suspected of causing cancer. May cause drowsiness and dizziness. May cause damage to organs through prolonged or repeated exposure.
Precautionary statements	
Prevention	: <input checked="" type="checkbox"/> Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Wash hands thoroughly after handling.
Response	: <input checked="" type="checkbox"/> Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.
Storage	: Store locked up. Store in a well-ventilated place. Keep cool.
Disposal	: Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements	: Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. 1-component mixtures: formaldehyde is released during curing. Formaldehyde may cause irreversible effects, is irritating to the mucous membranes and may cause skin sensitization. Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated.
Hazards not otherwise classified	: May form explosive peroxides. Hazardous reactions or instability may occur under certain conditions of storage or use. Prolonged or repeated contact may dry skin and cause irritation.

Product code B123C24	Date of issue 3 July 2015	Version 4
Product name FG CLR PC3200 4		

Section 3. Composition/information on ingredients

Substance/mixture : Mixture
Product name : FG CLR PC3200 4

Ingredient name	%	CAS number
Solvent naphtha (petroleum), heavy arom.	≥14 - <25	84742-94-5
2-(2-butoxyethoxy)ethyl acetate	≥5 - <10	124-17-4
butan-1-ol	≥4 - <5	71-36-3
2-ethylhexan-1-ol	≥3.3 - <5	104-76-7
Solvent naphtha (petroleum), light aromatic	≥2 - <3	84742-95-8
2-methylpropan-1-ol	≥2 - <3	78-83-1
naphthalene	≥1 - <3	91-20-3
1,2,4-trimethylbenzene	≥1.3 - <2	95-83-8

SUB codes represent substances without registered CAS Numbers.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

- Eye contact : Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.
- Inhalation : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- Skin contact : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
- Ingestion : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact : Causes serious eye damage.
- Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness.
- Skin contact : Causes skin irritation. Defatting to the skin.
- Ingestion : Can cause central nervous system (CNS) depression.

Over-exposure signs/symptoms

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Section 4. First aid measures

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
dryness
cracking
blistering may occur
- Ingestion** : Adverse symptoms may include the following:
stomach pains

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

- Specific hazards arising from the chemical** : Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

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Section 5. Fire-fighting measures

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flames, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

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Product code **B123C24**Date of issue **3 July 2015**Version **4**Product name **FG CLR PC3200 4**

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Special precautions** : Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Vapors are heavier than air and may spread along floors. May form explosive peroxides. Keep away from combustible materials. Avoid shock and friction. Avoid all possible sources of ignition (spark or flame). If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

- Conditions for safe storage, including any incompatibilities** : Do not store above the following temperature: 35°C (95°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Solvent naphtha (petroleum), heavy arom. 2-(2-butoxyethoxy)ethyl acetate butan-1-ol	None. None. ACGIH TLV (United States, 4/2014). TWA: 20 ppm 8 hours. OSHA PEL (United States, 2/2013). TWA: 300 mg/m ³ 8 hours. TWA: 100 ppm 8 hours.
2-ethylhexan-1-ol Solvent naphtha (petroleum), light aromatic 2-methylpropan-1-ol	None. None. ACGIH TLV (United States, 4/2014). TWA: 152 mg/m ³ 8 hours.

United States

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Section 8. Exposure controls/personal protection

naphthalene	TWA: 50 ppm 8 hours. OSHA PEL (United States, 2/2013). TWA: 300 mg/m ³ 8 hours. TWA: 100 ppm 8 hours. ACGIH TLV (United States, 4/2014). Absorbed through skin. TWA: 52 mg/m ³ 8 hours. TWA: 10 ppm 8 hours. OSHA PEL (United States, 2/2013). TWA: 50 mg/m ³ 8 hours. TWA: 10 ppm 8 hours. ACGIH TLV (United States, 4/2014). TWA: 123 mg/m ³ 8 hours. TWA: 25 ppm 8 hours.
1,2,4-trimethylbenzene	

Key to abbreviations

A	= Acceptable Maximum Peak	S	= Potential skin absorption
ACGIH	= American Conference of Governmental Industrial Hygienists.	SR	= Respiratory sensitization
C	= Ceiling Limit	SS	= Skin sensitization
F	= Fume	STEL	= Short term Exposure limit Values
IPEL	= Internal Permissible Exposure Limit	TD	= Total dust
OSHA	= Occupational Safety and Health Administration.	TLV	= Threshold Limit Value
R	= Respirable	TWA	= Time Weighted Average
Z	= OSHA 29CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances		

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Chemical splash goggles and face shield.

Skin protection

United States

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Section 8. Exposure controls/personal protection

- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Gloves** : For prolonged or repeated handling, use the following type of gloves:

Recommended: butyl rubber, nitrile rubber
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Section 9. Physical and chemical properties

- Appearance**
- Physical state** : Liquid.
- Color** : Not available.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : Not available.
- Boiling point** : >37.78°C (>100°F)
- Flash point** : Closed cup: 48.89°C (120°F)
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Lower: 1.2%
- Evaporation rate** : 0.2 (butyl acetate = 1)
- Vapor pressure** : 0.67 kPa (5 mm Hg) [room temperature]
- Vapor density** : Not available.
- Relative density** : 1.04
- Density (lbs / gal)** : 8.68
- Solubility** : Insoluble in the following materials: cold water.

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Section 9. Physical and chemical properties

Partition coefficient: n-octanol/water	: Not available.
Viscosity	: Kinematic (40°C (104°F)): >0.21 cm ² /s (>21 cSt)
Volatility	: 50% (v/v), 42.87% (w/w)
% Solid. (w/w)	: 57.13

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.
Incompatible materials	: Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.
Hazardous decomposition products	: Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Solvent naphtha (petroleum), heavy arom.	LD50 Dermal	Rabbit	>1.693 g/kg	-
2-(2-butoxyethoxy)ethyl acetate	LD50 Oral	Rat	3.2 g/kg	-
	LC50 Inhalation Dusts and mists	Rat	72500 mg/m ³	4 hours
butan-1-ol	LD50 Dermal	Rabbit	5.75 g/kg	-
	LD50 Oral	Rat	6500 mg/kg	-
	LC50 Inhalation Vapor	Rat	24000 mg/m ³	4 hours
	LC50 Inhalation Vapor	Rat	8000 ppm	4 hours
2-ethylhexan-1-ol	LD50 Dermal	Rabbit	3400 mg/kg	-
	LD50 Oral	Rat	790 mg/kg	-
	LD50 Dermal	Rabbit	1970 mg/kg	-
	LD50 Oral	Rat	2.05 g/kg	-
Solvent naphtha (petroleum), light aromatic	LD50 Dermal	Rabbit	3.48 g/kg	-
	LD50 Oral	Rat	8400 mg/kg	-
2-methylpropan-1-ol	LC50 Inhalation Vapor	Rat	6500 mg/m ³	4 hours
	LD50 Dermal	Rabbit	2 g/kg	-
	LD50 Oral	Rat	2480 mg/kg	-

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Section 11. Toxicological information

naphthalene	LD50 Dermal	Rabbit	>20 g/kg	-
	LD50 Oral	Rat	490 mg/kg	-
1,2,4-trimethylbenzene	LC50 Inhalation Vapor	Rat	18000 mg/m ³	4 hours
	LD50 Oral	Rat	5 g/kg	-

Conclusion/Summary : There are no data available on the mixture itself.

Irritation/Corrosion

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Eyes : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Sensitization

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Mutagenicity

Conclusion/Summary : There are no data available on the mixture itself.

Carcinogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Classification

Product/ingredient name	OSHA	IARC	NTP
naphthalene	-	2B	Reasonably anticipated to be a human carcinogen.

Carcinogen Classification code:

IARC: 1, 2A, 2B, 3, 4

NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen

OSHA: +

Not listed/not regulated: -

Reproductive toxicity

Conclusion/Summary : There are no data available on the mixture itself.

Teratogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Specific target organ toxicity (single exposure)

Name	Category
Solvent naphtha (petroleum), heavy arom.	Category 3
butan-1-ol	Category 3
2-ethylhexan-1-ol	Category 3
Solvent naphtha (petroleum), light aromatic	Category 3
2-methylpropan-1-ol	Category 3
1,2,4-trimethylbenzene	Category 3

Specific target organ toxicity (repeated exposure)

Name	Category
2-ethylhexan-1-ol	Category 2
naphthalene	Category 2

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Section 11. Toxicological information

Target organs : Contains material which causes damage to the following organs: brain, skin, central nervous system (CNS).
Contains material which may cause damage to the following organs: blood, kidneys, lungs, liver, heart, upper respiratory tract, ears, eye, lens or cornea, testes.

Aspiration hazard

Name	Result
Solvent naphtha (petroleum), heavy arom.	ASPIRATION HAZARD - Category 1
Solvent naphtha (petroleum), light aromatic	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

Potential acute health effects

Eye contact : Causes serious eye damage.
Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness.
Skin contact : Causes skin irritation. Defatting to the skin.
Ingestion : Can cause central nervous system (CNS) depression.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain
watering
redness
Inhalation : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
dryness
cracking
blistering may occur
Ingestion : Adverse symptoms may include the following:
stomach pains

Delayed and immediate effects and also chronic effects from short and long term exposure

Conclusion/Summary : There are no data available on the mixture itself. 1-component mixtures: formaldehyde is released during curing. Formaldehyde may cause irreversible effects, is irritating to the mucous membranes and may cause skin sensitization. Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion

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Section 11. Toxicological information

may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Short term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Long term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Potential chronic health effects

General : May cause damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	3407 mg/kg
Dermal	2926.1 mg/kg
Inhalation (gases)	52051.8 ppm
Inhalation (vapors)	80.82 mg/l
Inhalation (dusts and mists)	17.35 mg/l

Section 12. Ecological information

Toxicity

Not available.

Persistence and degradability

Not available.

Bioaccumulative potential

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Section 12. Ecological information

Product/ingredient name	LogP _{ow}	BCF	Potential
2-(2-butoxyethoxy)ethyl acetate	1.7	-	low
butan-1-ol	0.88	-	low
2-methylpropan-1-ol	0.78	-	low
naphthalene	3.3	85.11	low
1,2,4-trimethylbenzene	3.63	120.23	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

14. Transport information

	DOT	IMDG	IATA
UN number	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT
Transport hazard class (es)	3	3	3
Packing group	III	III	III
Environmental hazards	No.	Yes.	No.
Marine pollutant substances	Not applicable.	(Solvent naphtha (petroleum), heavy aromatic, Solvent naphtha (petroleum), light aromatic)	Not applicable.

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14. Transport information

Product RQ (lbs)	5188.1	Not applicable.	Not applicable.
RQ substances	(naphthalene, xylene)	Not applicable.	Not applicable.

Additional information

- DOT** : This product may be re-classified as "Combustible Liquid," unless transported by vessel or aircraft. Non-bulk packages (less than or equal to 119 gal) of combustible liquids are not regulated as hazardous materials in package sizes less than the product reportable quantity.
- IMDG** : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.
- IATA** : The environmentally hazardous substance mark may appear if required by other transportation regulations.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

United States

United States inventory (TSCA 8b) : All components are listed or exempted.

U.S. Federal regulations

SARA 302/304

SARA 304 RQ : Not applicable.

Composition/information on ingredients

No products were found.

SARA 311/312

Classification : Fire hazard
Immediate (acute) health hazard
Delayed (chronic) health hazard

Composition/information on ingredients

Name	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Solvent naphtha (petroleum), heavy arom.	Yes.	No.	No.	Yes.	No.
2-(2-butoxyethoxy)ethyl acetate	No.	No.	No.	Yes.	No.
butan-1-ol	Yes.	No.	No.	Yes.	No.
2-ethylhexan-1-ol	Yes.	No.	No.	Yes.	Yes.
Solvent naphtha (petroleum), light aromatic	Yes.	No.	No.	Yes.	No.
2-methylpropan-1-ol	Yes.	No.	No.	Yes.	No.
naphthalene	Yes.	No.	Yes.	Yes.	Yes.
1,2,4-trimethylbenzene	Yes.	No.	No.	Yes.	No.

SARA 313

<u>Chemical name</u>	<u>CAS number</u>	<u>Concentration</u>

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Section 15. Regulatory information

Supplier notification	: 2-(2-butoxyethoxy)ethyl acetate	124-17-4	5 - 10
	butan-1-ol	71-36-3	1 - 5
	naphthalene	91-20-3	1 - 5
	1,2,4-trimethylbenzene	95-63-6	0.5 - 1.5

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

Section 16. Other Information

Hazardous Material Information System (U.S.A.)

Health : 3 * **Flammability** : 2 **Physical hazards** : 0

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)

Health : 3 **Flammability** : 2 **Instability** : 0

Date of previous issue : 6/5/2015

Organization that prepared the MSDS : EHS

Key to abbreviations

: ATE = Acute Toxicity Estimate
 BCF = Bioconcentration Factor
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC = Intermediate Bulk Container
 IMDG = International Maritime Dangerous Goods
 LogPow = logarithm of the octanol/water partition coefficient
 MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
 UN = United Nations

☑ Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.

SAFETY DATA SHEET



Date of issue/Date of revision 19 August 2015

Version 4

Section 1. Identification

Product name : UNIVERSAL URETHANE YELLOW PRIMER
Product code : BP1Y100B
Other means of Identification : Not available.
Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Product use : Industrial applications.
Use of the substance/ mixture : Coating. Paints. Painting-related materials.
Uses advised against : Not applicable.

Supplier : PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272

Emergency telephone number : (412) 434-4515 (U.S.)
(514) 845-1320 (Canada)
01-800-00-21-400 (Mexico)

Technical Phone Number : (724) 274-7900 (SPRINGDALE, PA) 8:00 a.m. - 5:00 p.m. EST

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 3
ACUTE TOXICITY (oral) - Category 4
ACUTE TOXICITY (Inhalation) - Category 4
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 1A
TOXIC TO REPRODUCTION (Fertility) - Category 1B
TOXIC TO REPRODUCTION (Unborn child) - Category 1B
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 34.3%

GHS label elements

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Product code BP1Y100B

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Product name UNIVERSAL URETHANE YELLOW PRIMER

Section 2. Hazards identification

Hazard pictograms



Signal word

: **Danger**

Hazard statements

: Flammable liquid and vapor.
Harmful if swallowed or if inhaled.
Causes serious eye irritation.
Causes skin irritation.
May cause an allergic skin reaction.
May cause cancer.
May damage fertility or the unborn child.
May cause respiratory irritation.
May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

Response

: Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage

: Store locked up. Store in a well-ventilated place. Keep cool.

Disposal

: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

: Sanding and grinding dusts may be harmful if inhaled. Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. NTP, IARC and OSHA have classified chromium (+6) compounds as carcinogenic. Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated.

Hazards not otherwise classified

: Prolonged or repeated contact may dry skin and cause irritation.

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Product code BP1Y100B**Date of issue** 19 August 2015**Version** 4**Product name** UNIVERSAL URETHANE YELLOW PRIMER

Section 3. Composition/information on ingredients

Substance/mixture : Mixture**Product name** : UNIVERSAL URETHANE YELLOW PRIMER

Ingredient name	%	CAS number
polyester resin	≥10 - <25	Not available.
Solvent naphtha (petroleum), light aromatic	≥10 - <16	64742-95-6
strontium chromate	≥10 - <25	7789-06-2
titanium dioxide	≥5 - <10	13463-67-7
2-butoxyethanol	≥8 - <10	111-76-2
1,2,4-trimethylbenzene	≥7 - <9	95-63-6
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	≥5 - <10	85940-94-9
Kaolin	≥3 - <5	1332-58-7
butan-1-ol	≥2 - <3	71-36-3
trimethylbenzene	≥2 - <3	25551-13-7
2-methoxy-1-methylethyl acetate	≥1 - <3	108-65-6
dibutyltin dilaurate	≥0.3 - <1	77-58-7
cumene	≥0.3 - <1	98-82-8
barium chromate	≥0.3 - <1	10294-40-3

SUB codes represent substances without registered CAS Numbers.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

- Eye contact** : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.
- Inhalation** : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
- Ingestion** : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Harmful if inhaled. May cause respiratory irritation.
- Skin contact** : Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.

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Product code BP1Y100B	Date of issue 19 August 2015	Version 4
Product name UNIVERSAL URETHANE YELLOW PRIMER		

Section 4. First aid measures

Ingestion : Harmful if swallowed.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
irritation
redness
dryness
cracking
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

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Section 5. Fire-fighting measures

Specific hazards arising from the chemical	: Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon dioxide carbon monoxide phosphorus oxides halogenated compounds metal oxide/oxides
Special protective actions for fire-fighters	: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Special protective equipment for fire-fighters	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	: If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Environmental precautions	: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill	: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
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Section 6. Accidental release measures

- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Special precautions** : Ingestion of product or cured coating may be harmful. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Vapors are heavier than air and may spread along floors. If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Do not store above the following temperature: 35°C (95°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

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Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
polyester resin	None.
Solvent naphtha (petroleum), light aromatic	None.
strontium chromate	ACGIH TLV (United States, 4/2014). TWA: 0.0005 mg/m ³ , (measured as Cr) 8 hours.
	OSHA PEL Z2 (United States, 2/2013). CEIL: 1 mg/10m ³
titanium dioxide	OSHA PEL (United States, 2/2013). TWA: 0.005 mg/m ³ , (as Cr) 8 hours.
	OSHA PEL (United States, 2/2013). TWA: 15 mg/m ³ 8 hours. Form: Total dust
2-butoxyethanol	ACGIH TLV (United States, 4/2014). TWA: 10 mg/m ³ 8 hours.
	ACGIH TLV (United States, 4/2014). TWA: 20 ppm 8 hours.
	OSHA PEL (United States, 2/2013). Absorbed through skin.
	TWA: 240 mg/m ³ 8 hours.
1,2,4-trimethylbenzene	TWA: 50 ppm 8 hours.
	ACGIH TLV (United States, 4/2014). TWA: 123 mg/m ³ 8 hours.
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	TWA: 25 ppm 8 hours.
Kaolin	None.
	ACGIH TLV (United States, 4/2014). TWA: 2 mg/m ³ 8 hours. Form: Respirable fraction
	OSHA PEL (United States, 2/2013). TWA: 5 mg/m ³ 8 hours. Form: Respirable fraction
butan-1-ol	TWA: 15 mg/m ³ 8 hours. Form: Total dust
	ACGIH TLV (United States, 4/2014). TWA: 20 ppm 8 hours.
	OSHA PEL (United States, 2/2013). TWA: 300 mg/m ³ 8 hours.
trimethylbenzene	TWA: 100 ppm 8 hours.
	ACGIH TLV (United States, 4/2014). TWA: 123 mg/m ³ 8 hours.
2-methoxy-1-methylethyl acetate	TWA: 25 ppm 8 hours.
	IPEL (PPG, 4/2009). TWA: 50 ppm
dibutyltin dilaurate	ACGIH TLV (United States, 4/2014). Absorbed through skin.
	STEL: 0.2 mg/m ³ , (as Sn) 15 minutes.
	TWA: 0.1 mg/m ³ , (as Sn) 8 hours.
	OSHA PEL (United States, 2/2013). TWA: 0.1 mg/m ³ , (as Sn) 8 hours.
	OSHA PEL (United States).

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Section 8. Exposure controls/personal protection

Skin protection

Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Gloves

: butyl rubber

Body protection

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

: Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Restrictions on use

: Persons with a history of asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used.

Section 9. Physical and chemical properties

Appearance

Physical state

: Liquid.

Color

: Not available.

Odor

: Not available.

Odor threshold

: Not available.

pH

: Not available.

Melting point

: Not available.

Boiling point

: >37.78°C (>100°F)

Flash point

: Closed cup: 44.44°C (112°F)

Auto-ignition temperature

: Not available.

Decomposition temperature

: Not available.

Flammability (solid, gas)

: Not available.

Lower and upper explosive (flammable) limits

: Lower: 0.9%

Evaporation rate

: 0.21 (butyl acetate = 1)

Vapor pressure

: 0.68 kPa (5.1 mm Hg) [room temperature]

Vapor density

: Not available.

Relative density

: 1.24

Density (lbs / gal)

: 10.35

Solubility

: Insoluble in the following materials: cold water.

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Section 9. Physical and chemical properties

Partition coefficient: n-octanol/water	: Not available.
Viscosity	: Kinematic (40°C (104°F)): >0.21 cm²/s (>21 cSt)
Volatility	: 56% (v/v), 39.87% (w/w)
% Solid. (w/w)	: 80.13

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.
Incompatible materials	: Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.
Hazardous decomposition products	: Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Solvent naphtha (petroleum), light aromatic	LD50 Dermal	Rabbit	3.48 g/kg	-
strontium chromate	LD50 Oral	Rat	8400 mg/kg	-
titanium dioxide	LD50 Oral	Rat	3118 mg/kg	-
2-butoxyethanol	LD50 Oral	Rat	>10 g/kg	-
	LD50 Dermal	Rabbit	220 mg/kg	-
	LD50 Oral	Rat	250 mg/kg	-
1,2,4-trimethylbenzene	LC50 Inhalation Vapor	Rat	18000 mg/m³	4 hours
	LD50 Oral	Rat	5 g/kg	-
Kaolin	LD50 Oral	Rat	>5000 mg/kg	-
butan-1-ol	LC50 Inhalation Vapor	Rat	24000 mg/m³	4 hours
	LC50 Inhalation Vapor	Rat	8000 ppm	4 hours
	LD50 Dermal	Rabbit	3400 mg/kg	-
	LD50 Oral	Rat	790 mg/kg	-
trimethylbenzene	LD50 Oral	Rat	8970 mg/kg	-
2-methoxy-1-methylethyl acetate	LD50 Dermal	Rabbit	>5 g/kg	-
	LD50 Oral	Rat	8532 mg/kg	-
dibutyltin dilaurate	LD50 Oral	Rat	175 mg/kg	-

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Section 11. Toxicological information

cumene	LC50 Inhalation Vapor	Rat	39000 mg/m ³	4 hours
	LD50 Dermal	Rabbit	12.3 g/kg	-
	LD50 Oral	Rat	1400 mg/kg	-

Conclusion/Summary : There are no data available on the mixture itself.

Irritation/Corrosion

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Eyes : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Sensitization

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Mutagenicity

Conclusion/Summary

There are no data available on the mixture itself.

Carcinogenicity

Conclusion/Summary

There are no data available on the mixture itself.

Classification

Product/ingredient name	OSHA	IARC	NTP
Strontium chromate	+	1	Known to be a human carcinogen.
titanium dioxide	-	2B	-
2-butoxyethanol	-	3	-
cumene	-	2B	Reasonably anticipated to be a human carcinogen.
barium chromate	+	1	Known to be a human carcinogen.

Carcinogen Classification code:

IARC: 1, 2A, 2B, 3, 4

NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen

OSHA: +

Not listed/not regulated: -

Reproductive toxicity

Conclusion/Summary

There are no data available on the mixture itself.

Teratogenicity

Conclusion/Summary

There are no data available on the mixture itself.

Specific target organ toxicity (single exposure)

Name	Category
Solvent naphtha (petroleum), light aromatic	Category 3
1,2,4-trimethylbenzene	Category 3
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	Category 3
butan-1-ol	Category 3
dibutyltin dilaurate	Category 1
cumene	Category 3

Specific target organ toxicity (repeated exposure)

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Section 11. Toxicological information

Name	Category
strontium chromate	Category 2
2-butoxyethanol	Category 2
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	Category 2
dibutyltin dilaurate	Category 1
cumene	Category 2
barium chromate	Category 2

Target organs : Contains material which causes damage to the following organs: brain, central nervous system (CNS).
Contains material which may cause damage to the following organs: blood, kidneys, lungs, liver, spleen, lymphatic system, upper respiratory tract, skin, bone marrow, ears, eye, lens or cornea, stomach.

Aspiration hazard

Name	Result
Solvent naphtha (petroleum), light aromatic	ASPIRATION HAZARD - Category 1
cumene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

Potential acute health effects

Eye contact : Causes serious eye irritation.
Inhalation : Harmful if inhaled. May cause respiratory irritation.
Skin contact : Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.
Ingestion : Harmful if swallowed.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness
Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
reduced fetal weight
increase in fetal deaths
skeletal malformations
Skin contact : Adverse symptoms may include the following:
irritation
redness
dryness
cracking
reduced fetal weight
increase in fetal deaths
skeletal malformations
Ingestion : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

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Product code BP1Y100B**Date of issue** 19 August 2015 **Version** 4**Product name** UNIVERSAL URETHANE YELLOW PRIMER**Section 11. Toxicological information**

Conclusion/Summary : There are no data available on the mixture itself. Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Short term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Long term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Potential chronic health effects

Product/ingredient name	Result	Species	Dose	Exposure
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	Sub-chronic NOAEL Inhalation Dusts and mists	Rat	5 mg/m ³	90 days

General : May cause damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : May cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : May damage the unborn child.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : May damage fertility.

Numerical measures of toxicity**Acute toxicity estimates**

Route	ATE value
Oral	1352.4 mg/kg
Dermal	4380 mg/kg
Inhalation (gases)	17295.1 ppm
Inhalation (vapors)	51.5 mg/l
Inhalation (dusts and mists)	5.765 mg/l

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Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
titanium dioxide	Acute LC50 >100 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
2-methoxy-1-methylethyl acetate	Acute LC50 161 mg/l Fresh water	Fish	96 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
2-butoxyethanol	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
2-butoxyethanol	0.81	-	low
1,2,4-trimethylbenzene	3.63	120.23	low
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	-3.6	-	low
butan-1-ol	0.88	-	low
trimethylbenzene	3.4 to 3.8	-	low
2-methoxy-1-methylethyl acetate	0.56	-	low
dibutyltin dilaurate	3.12	-	low
cumene	3.66	35.48	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Section 13. Disposal considerations

Disposal methods

: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

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Section 13. Disposal considerations

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

14. Transport information

	DOT	IMDG	IATA
UN number	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT
Transport hazard class (es)	3	3	3
Packing group	III	III	III
Environmental hazards	No.	Yes.	No.
Marine pollutant substances	Not applicable.	(Solvent naphtha (petroleum), light aromatic, strontium chromate)	Not applicable.
Product RQ (lbs)	94.319	Not applicable.	Not applicable.
RQ substances	(strontium chromate, xylene)	Not applicable.	Not applicable.

Additional information

- DOT** : This product may be re-classified as "Combustible Liquid," unless transported by vessel or aircraft. Non-bulk packages (less than or equal to 119 gal) of combustible liquids are not regulated as hazardous materials in package sizes less than the product reportable quantity.
- IMDG** : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.
- IATA** : The environmentally hazardous substance mark may appear if required by other transportation regulations.

Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

United States

United States inventory (TSCA 8b) : All components are listed or exempted.

SARA 302/304

SARA 304 RQ : Not applicable.

Composition/Information on Ingredients

No products were found.

SARA 311/312

Classification : Fire hazard
Immediate (acute) health hazard
Delayed (chronic) health hazard

Section 15. Regulatory information

Composition/information on ingredients

Name	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
polyester resin	No.	No.	No.	Yes.	No.
Solvent naphtha (petroleum), light aromatic	Yes.	No.	No.	Yes.	No.
strontium chromate	No.	No.	No.	Yes.	Yes.
titanium dioxide	No.	No.	No.	No.	Yes.
2-butoxyethanol	Yes.	No.	No.	Yes.	Yes.
1,2,4-trimethylbenzene	Yes.	No.	No.	Yes.	No.
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	Yes.	No.	No.	Yes.	Yes.
butan-1-ol	Yes.	No.	No.	Yes.	No.
trimethylbenzene	Yes.	No.	No.	Yes.	No.
2-methoxy-1-methylethyl acetate	Yes.	No.	No.	No.	No.
dibutyltin dilaurate	No.	No.	No.	Yes.	Yes.
cumene	Yes.	No.	No.	Yes.	Yes.
barium chromate	Yes.	No.	No.	Yes.	Yes.

SARA 313

Supplier notification	Chemical name	CAS number	Concentration
	strontium chromate	7789-06-2	7 - 13
	2-butoxyethanol	111-76-2	5 - 10
	1,2,4-trimethylbenzene	95-63-6	5 - 10
	butan-1-ol	71-36-3	1 - 5
	barium chromate	10294-40-3	0.1 - 1

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health : 3 * Flammability : 2 Physical hazards : 0

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)

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Section 16. Other information

Health : 3 **Flammability** : 2 **Instability** : 0

Date of previous issue : 6/5/2015

Organization that prepared the MSDS : EHS

Key to abbreviations :

- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
- UN = United Nations

☑ Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.

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SAFETY DATA SHEET



Date of issue/Date of revision 19 August 2015
Version 4

Section 1. Identification

Product name : UNIVERSAL URETHANE YELLOW PRIMER
Product code : BP1Y100B
Other means of Identification : Not available.
Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Product use : Industrial applications.
Use of the substance/ mixture : Coating. Paints. Painting-related materials.
Uses advised against : Not applicable.

Supplier : PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272

Emergency telephone number : (412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
01-800-00-21-400 (Mexico)

Technical Phone Number : (724) 274-7900 (SPRINGDALE, PA) 8:00 a.m. - 5:00 p.m. EST

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 3
ACUTE TOXICITY (oral) - Category 4
ACUTE TOXICITY (inhalation) - Category 4
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 1A
TOXIC TO REPRODUCTION (Fertility) - Category 1B
TOXIC TO REPRODUCTION (Unborn child) - Category 1B
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract Irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 34.3%

GHS label elements

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Section 2. Hazards identification

Hazard pictograms



Signal word

: **Danger**

Hazard statements

: Flammable liquid and vapor.
Harmful if swallowed or if inhaled.
Causes serious eye irritation.
Causes skin irritation.
May cause an allergic skin reaction.
May cause cancer.
May damage fertility or the unborn child.
May cause respiratory irritation.
May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

Response

: Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage

: Store locked up. Store in a well-ventilated place. Keep cool.

Disposal

: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

: Sanding and grinding dusts may be harmful if inhaled. Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. NTP, IARC and OSHA have classified chromium (+6) compounds as carcinogenic. Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated.

Hazards not otherwise classified

: Prolonged or repeated contact may dry skin and cause irritation.

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Section 3. Composition/information on ingredients

Substance/mixture	: Mixture
Product name	: UNIVERSAL URETHANE YELLOW PRIMER

Ingredient name	%	CAS number
Polyester resin	≥10 - <25	Not available.
Solvent naphtha (petroleum), light aromatic	≥10 - <16	64742-95-6
strontium chromate	≥10 - <25	7789-06-2
titanium dioxide	≥5 - <10	13463-67-7
2-butoxyethanol	≥8 - <10	111-76-2
1,2,4-trimethylbenzene	≥7 - <9	95-63-6
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	≥5 - <10	85940-94-9
Kaolin	≥3 - <5	1332-58-7
butan-1-ol	≥2 - <3	71-36-3
trimethylbenzene	≥2 - <3	25551-13-7
2-methoxy-1-methylethyl acetate	≥1 - <3	108-85-6
dibutyltin dilaurate	≥0.3 - <1	77-58-7
cumene	≥0.3 - <1	98-82-8
barium chromate	≥0.3 - <1	10294-40-3

SUB codes represent substances without registered CAS Numbers.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

Eye contact	: Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.
Inhalation	: Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
Skin contact	: Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
Ingestion	: If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	: Causes serious eye irritation.
Inhalation	: Harmful if inhaled. May cause respiratory irritation.
Skin contact	: Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.

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Section 4. First aid measures

Ingestion : Harmful if swallowed.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
irritation
redness
dryness
cracking
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

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Section 5. Fire-fighting measures

Specific hazards arising from the chemical	: Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon dioxide carbon monoxide phosphorus oxides halogenated compounds metal oxide/oxides
Special protective actions for fire-fighters	: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Special protective equipment for fire-fighters	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	: If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Environmental precautions	: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill	: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
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Section 6. Accidental release measures

Large spill

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Special precautions

: Ingestion of product or cured coating may be harmful. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Vapors are heavier than air and may spread along floors. If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.

Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities

: Do not store above the following temperature: 35°C (95°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

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Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
polyester resin	None.
Solvent naphtha (petroleum), light aromatic	None.
strontium chromate	ACGIH TLV (United States, 4/2014). TWA: 0.0005 mg/m ³ , (measured as Cr) 8 hours.
	OSHA PEL Z2 (United States, 2/2013). CELL: 1 mg/10m ³
	OSHA PEL (United States, 2/2013). TWA: 0.005 mg/m ³ , (as Cr) 8 hours.
titanium dioxide	OSHA PEL (United States, 2/2013). TWA: 15 mg/m ³ 8 hours. Form: Total dust
	ACGIH TLV (United States, 4/2014). TWA: 10 mg/m ³ 8 hours.
2-butoxyethanol	ACGIH TLV (United States, 4/2014). TWA: 20 ppm 8 hours.
	OSHA PEL (United States, 2/2013). Absorbed through skin.
	TWA: 240 mg/m ³ 8 hours.
	TWA: 50 ppm 8 hours.
1,2,4-trimethylbenzene	ACGIH TLV (United States, 4/2014). TWA: 123 mg/m ³ 8 hours.
	TWA: 25 ppm 8 hours.
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	None.
Kaolin	ACGIH TLV (United States, 4/2014). TWA: 2 mg/m ³ 8 hours. Form: Respirable fraction
	OSHA PEL (United States, 2/2013). TWA: 5 mg/m ³ 8 hours. Form: Respirable fraction
	TWA: 15 mg/m ³ 8 hours. Form: Total dust
butan-1-ol	ACGIH TLV (United States, 4/2014). TWA: 20 ppm 8 hours.
	OSHA PEL (United States, 2/2013). TWA: 300 mg/m ³ 8 hours.
	TWA: 100 ppm 8 hours.
trimethylbenzene	ACGIH TLV (United States, 4/2014). TWA: 123 mg/m ³ 8 hours.
	TWA: 25 ppm 8 hours.
2-methoxy-1-methylethyl acetate	IPEL (PPG, 4/2009). TWA: 50 ppm
dibutyltin dilaurate	ACGIH TLV (United States, 4/2014). Absorbed through skin.
	STEL: 0.2 mg/m ³ , (as Sn) 15 minutes.
	TWA: 0.1 mg/m ³ , (as Sn) 8 hours.
	OSHA PEL (United States, 2/2013). TWA: 0.1 mg/m ³ , (as Sn) 8 hours.
	OSHA PEL (United States).

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Section 8. Exposure controls/personal protection

cumene	<p>TWA: 0.1 mg/m³, (as Sn) ACGIH TLV (United States, 4/2014). TWA: 50 ppm 8 hours. OSHA PEL (United States, 2/2013). Absorbed through skin. TWA: 245 mg/m³ 8 hours. TWA: 50 ppm 8 hours. ACGIH TLV (United States, 4/2014). TWA: 0.01 mg/m³, (measured as Cr) 8 hours. Form: Insoluble OSHA PEL (United States, 2/2013). TWA: 0.005 mg/m³, (as Cr) 8 hours. OSHA PEL Z2 (United States, 2/2013). CEIL: 1 mg/10m³ OSHA PEL (United States). TWA: 5 mg/m³</p>
barium chromate	<p>TWA: 0.1 mg/m³, (as Sn) ACGIH TLV (United States, 4/2014). TWA: 50 ppm 8 hours. OSHA PEL (United States, 2/2013). Absorbed through skin. TWA: 245 mg/m³ 8 hours. TWA: 50 ppm 8 hours. ACGIH TLV (United States, 4/2014). TWA: 0.01 mg/m³, (measured as Cr) 8 hours. Form: Insoluble OSHA PEL (United States, 2/2013). TWA: 0.005 mg/m³, (as Cr) 8 hours. OSHA PEL Z2 (United States, 2/2013). CEIL: 1 mg/10m³ OSHA PEL (United States). TWA: 5 mg/m³</p>

Key to abbreviations

A	= Acceptable Maximum Peak	S	= Potential skin absorption
ACGIH	= American Conference of Governmental Industrial Hygienists.	SR	= Respiratory sensitization
C	= Ceiling Limit	SS	= Skin sensitization
F	= Fume	STEL	= Short term Exposure limit values
IPEL	= Internal Permissible Exposure Limit	TD	= Total dust
OSHA	= Occupational Safety and Health Administration.	TLV	= Threshold Limit Value
R	= Respirable	TWA	= Time Weighted Average
Z	= OSHA 29CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances		

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures

2. If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Appropriate engineering controls

- Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls

- Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures

- Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

- Chemical splash goggles.

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Section 8. Exposure controls/personal protection

Skin protection

Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Gloves

Body protection

: butyl rubber

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

: Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Restrictions on use

: Persons with a history of asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used.

Section 9. Physical and chemical properties

Appearance

Physical state

: Liquid.

Color

: Not available.

Odor

: Not available.

Odor threshold

: Not available.

pH

: Not available.

Melting point

: Not available.

Boiling point

: >37.78°C (>100°F)

Flash point

: Closed cup: 44.44°C (112°F)

Auto-ignition temperature

: Not available.

Decomposition temperature

: Not available.

Flammability (solid, gas)

: Not available.

Lower and upper explosive (flammable) limits

: Lower: 0.9%

Evaporation rate

: 0.21 (butyl acetate = 1)

Vapor pressure

: 0.68 kPa (5.1 mm Hg) [room temperature]

Vapor density

: Not available.

Relative density

: 1.24

Density (lbs / gal)

: 10.35

Solubility

: Insoluble in the following materials: cold water.

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Section 9. Physical and chemical properties

Partition coefficient: n-octanol/water	: Not available.
Viscosity	: Kinematic (40°C (104°F)): >0.21 cm ² /s (>21 cSt)
Volatility	: 56% (v/v), 39.87% (w/w)
% Solid, (w/w)	: 60.13

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.
Incompatible materials	: Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.
Hazardous decomposition products	: Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Solvent naphtha (petroleum), light aromatic	LD50 Dermal	Rabbit	3.48 g/kg	-
strontium chromate	LD50 Oral	Rat	8400 mg/kg	-
titanium dioxide	LD50 Oral	Rat	3118 mg/kg	-
2-butoxyethanol	LD50 Oral	Rat	>10 g/kg	-
1,2,4-trimethylbenzene	LD50 Dermal	Rabbit	220 mg/kg	-
	LD50 Oral	Rat	250 mg/kg	-
	LC50 Inhalation Vapor	Rat	18000 mg/m ³	4 hours
Kaolin	LD50 Oral	Rat	5 g/kg	-
butan-1-ol	LD50 Oral	Rat	>5000 mg/kg	-
	LC50 Inhalation Vapor	Rat	24000 mg/m ³	4 hours
	LC50 Inhalation Vapor	Rat	8000 ppm	4 hours
	LD50 Dermal	Rabbit	3400 mg/kg	-
trimethylbenzene	LD50 Oral	Rat	790 mg/kg	-
2-methoxy-1-methylethyl acetate	LD50 Oral	Rat	8970 mg/kg	-
	LD50 Dermal	Rabbit	>5 g/kg	-
dibutyltin dilaurate	LD50 Oral	Rat	8532 mg/kg	-
	LD50 Oral	Rat	175 mg/kg	-

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Section 11. Toxicological information

cumene	LC50 Inhalation Vapor	Rat	39000 mg/m ³	4 hours
	LD50 Dermal	Rabbit	12.3 g/kg	-
	LD50 Oral	Rat	1400 mg/kg	-

Conclusion/Summary : There are no data available on the mixture itself.

Irritation/Corrosion

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Eyes : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Sensitization

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Mutagenicity

Conclusion/Summary

There are no data available on the mixture itself.

Carcinogenicity

Conclusion/Summary

There are no data available on the mixture itself.

Classification

Product/Ingredient name	OSHA	IARC	NTP
Strontium chromate	+	1	Known to be a human carcinogen.
titanium dioxide	-	2B	-
2-butoxyethanol	-	3	-
cumene	-	2B	Reasonably anticipated to be a human carcinogen.
barium chromate	+	1	Known to be a human carcinogen.

Carcinogen Classification code:

IARC: 1, 2A, 2B, 3, 4

NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen

OSHA: +

Not listed/not regulated: -

Reproductive toxicity

Conclusion/Summary

There are no data available on the mixture itself.

Teratogenicity

Conclusion/Summary

There are no data available on the mixture itself.

Specific target organ toxicity (single exposure)

Name	Category
Solvent naphtha (petroleum), light aromatic	Category 3
1,2,4-trimethylbenzene	Category 3
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	Category 3
butan-1-ol	Category 3
dibutyltin dilaurate	Category 1
cumene	Category 3

Specific target organ toxicity (repeated exposure)

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Section 11. Toxicological information

Name	Category
strontium chromate	Category 2
2-butoxyethanol	Category 2
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	Category 2
dibutyltin dilaurate	Category 1
cumene	Category 2
barium chromate	Category 2

Target organs : Contains material which causes damage to the following organs: brain, central nervous system (CNS).
Contains material which may cause damage to the following organs: blood, kidneys, lungs, liver, spleen, lymphatic system, upper respiratory tract, skin, bone marrow, ears, eye, lens or cornea, stomach.

Aspiration hazard

Name	Result
Solvent naphtha (petroleum), light aromatic cumene	ASPIRATION HAZARD - Category 1 ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Harmful if inhaled. May cause respiratory irritation.
- Skin contact** : Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.
- Ingestion** : Harmful if swallowed.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
dryness
cracking
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

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Section 11. Toxicological information

Conclusion/Summary : There are no data available on the mixture itself. Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Short term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Long term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Potential chronic health effects

Product/ingredient name	Result	Species	Dose	Exposure
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	Sub-chronic NOAEL. Inhalation Dusts and mists	Rat	5 mg/m ³	90 days

General : May cause damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : May cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : May damage the unborn child.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : May damage fertility.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	1352.4 mg/kg
Dermal	4380 mg/kg
Inhalation (gases)	17295.1 ppm
Inhalation (vapors)	51.5 mg/l
Inhalation (dusts and mists)	5.765 mg/l

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Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
iridium dioxide	Acute LC50 >100 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
2-methoxy-1-methylethyl acetate	Acute LC50 161 mg/l Fresh water	Fish	96 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
2-butoxyethanol	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
2-butoxyethanol	0.81	-	low
1,2,4-trimethylbenzene	3.63	120.23	low
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	-3.6	-	low
butan-1-ol	0.88	-	low
trimethylbenzene	3.4 to 3.8	-	low
2-methoxy-1-methylethyl acetate	0.56	-	low
dibutyltin dilaurate	3.12	-	low
cumene	3.66	35.48	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Product code BP1Y100B	Date of issue 19 August 2015	Version 4
Product name UNIVERSAL URETHANE YELLOW PRIMER		

Section 13. Disposal considerations

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

14. Transport information

	DOT	IMDG	IATA
UN number	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT
Transport hazard class (es)	3	3	3
Packing group	III	III	III
Environmental hazards	No.	Yes.	No.
Marine pollutant substances	Not applicable.	(Solvent naphtha (petroleum), light aromatic, strontium chromate)	Not applicable.
Product RQ (lbs)	94.319	Not applicable.	Not applicable.
RQ substances	(strontium chromate, xylene)	Not applicable.	Not applicable.

Additional information

- DOT** : This product may be re-classified as "Combustible Liquid," unless transported by vessel or aircraft. Non-bulk packages (less than or equal to 119 gal) of combustible liquids are not regulated as hazardous materials in package sizes less than the product reportable quantity.
- IMDG** : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.
- IATA** : The environmentally hazardous substance mark may appear if required by other transportation regulations.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

United States

United States Inventory (TSCA 8b) : All components are listed or exempted.

SARA 302/304

SARA 304 RQ : Not applicable.

Composition/information on ingredients

No products were found.

SARA 311/312

Classification : Fire hazard
Immediate (acute) health hazard
Delayed (chronic) health hazard

Product code BP1Y100B	Date of issue 19 August 2015	Version 4
Product name UNIVERSAL URETHANE YELLOW PRIMER		

Section 15. Regulatory information

Composition/information on ingredients

Name	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Polyester resin	No.	No.	No.	Yes.	No.
Solvent naphtha (petroleum), light aromatic	Yes.	No.	No.	Yes.	No.
strontium chromate	No.	No.	No.	Yes.	Yes.
titanium dioxide	No.	No.	No.	No.	Yes.
2-butoxyethanol	Yes.	No.	No.	Yes.	Yes.
1,2,4-trimethylbenzene	Yes.	No.	No.	Yes.	No.
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	Yes.	No.	No.	Yes.	Yes.
butan-1-ol	Yes.	No.	No.	Yes.	No.
trimethylbenzene	Yes.	No.	No.	Yes.	No.
2-methoxy-1-methylethyl acetate	Yes.	No.	No.	No.	No.
dibutyltin dilaurate	No.	No.	No.	Yes.	Yes.
cumene	Yes.	No.	No.	Yes.	Yes.
barium chromate	Yes.	No.	No.	Yes.	Yes.

SARA 313

Supplier notification	Chemical name	CAS number	Concentration
	strontium chromate	7789-08-2	7 - 13
	2-butoxyethanol	111-76-2	5 - 10
	1,2,4-trimethylbenzene	95-63-8	5 - 10
	butan-1-ol	71-36-3	1 - 5
	barium chromate	10294-40-3	0.1 - 1

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health : 3 * **Flammability** : 2 **Physical hazards** : 0

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)

United States Page: 16/17

Product code	BP1Y100B	Date of issue	19 August 2015	Version	4
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Section 16. Other information

Health : 3 Flammability : 2 Instability : 0

Date of previous issue : 6/5/2015

Organization that prepared the MSDS : EHS

Key to abbreviations :

- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
- UN = United Nations

✓ Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.

SAFETY DATA SHEET



Date of issue/Date of revision 7 July 2015

Version 3

Section 1. Identification

Product name : DURANAR EZ LEMON YELLOW
Product code : UC58609
Other means of identification : Not available.
Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Product use : Industrial applications.
Use of the substance/ mixture : Coating. Paints. Painting-related materials.
Uses advised against : Not applicable.

Supplier : PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272

Emergency telephone number : (412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
01-800-00-21-400 (Mexico)

Technical Phone Number : (724) 274-7900 (SPRINGDALE, PA) 8:00 a.m. - 5:00 p.m. EST

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 2
ACUTE TOXICITY (oral) - Category 4
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
CARCINOGENICITY - Category 2
TOXIC TO REPRODUCTION (Unborn child) - Category 2
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1
Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 27.4%

GHS label elements

United States

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Product code	UC56609	Date of issue	7 July 2015	Version	3
Product name	DURANAR EZ LEMON YELLOW				

Section 2. Hazards identification

Hazard pictograms



Signal word

: **Danger**

Hazard statements

: Highly flammable liquid and vapor.
Harmful if swallowed.
Causes serious eye irritation.
Causes skin irritation.
Suspected of damaging the unborn child.
Suspected of causing cancer.
Causes damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

Response

: Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage

: Store locked up. Store in a well-ventilated place. Keep cool.

Disposal

: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

: Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated.

Hazards not otherwise classified

: Prolonged or repeated contact may dry skin and cause irritation.

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Product name

: DURANAR EZ LEMON YELLOW

Product code UC56609	Date of issue 7 July 2015	Version 3
Product name DURANAR EZ LEMON YELLOW		

Section 3. Composition/information on ingredients

Ingredient name	%	CAS number
Ethene, 1,1-difluoro-, homopolymer	≥10 - <25	24937-79-8
antimony nickel titanium oxide yellow	≥10 - <25	8007-18-9
toluene	≥13 - <20	108-88-3
2-methoxy-1-methylethyl acetate	≥10 - <25	108-85-6
2-butoxyethanol	≥8 - <9	111-76-2
xylene	≥6.8 - <8.3	1330-20-7
dimethyl phthalate	≥5 - <10	131-11-3
ethylbenzene	≥1.2 - <1.47	100-41-4

SUB codes represent substances without registered CAS Numbers.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

- Eye contact** : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.
- Inhalation** : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
- Ingestion** : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation. Defatting to the skin.
- Ingestion** : Harmful if swallowed.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness

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Section 4. First aid measures

Inhalation : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
irritation
redness
dryness
cracking
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

Specific hazards arising from the chemical : Highly flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
halogenated compounds

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

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Section 5. Fire-fighting measures

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary

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Section 7. Handling and storage

Advice on general occupational hygiene

measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities

: Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Ethene, 1,1-difluoro-, homopolymer	OSHA PEL (United States). TWA: 15 mg/m ³ TWA: 5 mg/m ³ Form: Respirable TWA: 15 mg/m ³ Form: Total dust ACGIH TLV (United States). TWA: 3 mg/m ³ Form: Respirable TWA: 10 mg/m ³ Form: Total dust
antimony nickel titanium oxide yellow	OSHA PEL (United States). TWA: 0.5 mg/m ³ , (as Sb) TWA: 0.5 mg/m ³ , (as Sb) Form: Total dust ACGIH TLV (United States). TWA: 0.2 mg/m ³ Form: Total dust OSHA PEL (United States, 2/2013). TWA: 1 mg/m ³ , (as Ni) 8 hours.
toluene	OSHA PEL Z2 (United States, 2/2013). AMP: 500 ppm 10 minutes. CEIL: 300 ppm TWA: 200 ppm 8 hours. ACGIH TLV (United States, 4/2014). TWA: 20 ppm 8 hours.
2-methoxy-1-methylethyl acetate	IPEL (PPG, 4/2009).
2-butoxyethanol	TWA: 50 ppm ACGIH TLV (United States, 4/2014). TWA: 20 ppm 8 hours. OSHA PEL (United States, 2/2013). Absorbed through skin. TWA: 240 mg/m ³ 8 hours. TWA: 50 ppm 8 hours. ACGIH TLV (United States, 4/2014).
xylene	

United States

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Section 8. Exposure controls/personal protection

dimethyl phthalate

ethylbenzene

STEL: 651 mg/m³ 15 minutes.

STEL: 150 ppm 15 minutes.

TWA: 434 mg/m³ 8 hours.

TWA: 100 ppm 8 hours.

OSHA PEL (United States, 2/2013).

TWA: 435 mg/m³ 8 hours.

TWA: 100 ppm 8 hours.

ACGIH TLV (United States, 4/2014).

TWA: 5 mg/m³ 8 hours.

OSHA PEL (United States, 2/2013).

TWA: 5 mg/m³ 8 hours.

ACGIH TLV (United States, 4/2014).

TWA: 20 ppm 8 hours.

OSHA PEL (United States, 2/2013).

TWA: 435 mg/m³ 8 hours.

TWA: 100 ppm 8 hours.

Key to abbreviations

A = Acceptable Maximum Peak
ACGIH = American Conference of Governmental Industrial Hygienists.
C = Ceiling Limit
F = Fume
IPEL = Internal Permissible Exposure Limit
OSHA = Occupational Safety and Health Administration.
R = Respirable
Z = OSHA 29CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances

S = Potential skin absorption
SR = Respiratory sensitization
SS = Skin sensitization
STEL = Short term Exposure limit values
TD = Total dust
TLV = Threshold Limit Value
TWA = Time Weighted Average

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Chemical splash goggles.

Skin protection

United States

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Product name DURANAR EZ LEMON YELLOW

Section 8. Exposure controls/personal protection

- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Gloves** : For prolonged or repeated handling, use the following type of gloves:
- Recommended: butyl rubber
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Liquid.
- Color** : Not available.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : Not available.
- Boiling point** : >37.78°C (>100°F)
- Flash point** : Closed cup: 15.56°C (60°F)
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Lower: 1.1%
- Evaporation rate** : 0.89 (butyl acetate = 1)
- Vapor pressure** : 1.5 kPa (11.1 mm Hg) [room temperature]
- Vapor density** : Not available.
- Relative density** : 1.26
- Density (lbs / gal)** : 10.52
- Solubility** : Insoluble in the following materials: cold water.

United States

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Section 9. Physical and chemical properties

Partition coefficient: n-octanol/water	: Not available.
Viscosity	: Kinematic (40°C (104°F)): >0.21 cm ² /s (>21 cSt)
Volatility	: 71% (v/v), 52.48% (w/w)
% Solid. (w/w)	: 47.52

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.
Incompatible materials	: Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.
Hazardous decomposition products	: Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Ethene, 1,1-difluoro-, homopolymer toluene	LD50 Oral	Rat	60 g/kg	-
	LC50 Inhalation Vapor	Rat	49 g/m ³	4 hours
	LC50 Inhalation Vapor	Rat	8000 ppm	4 hours
	LD50 Dermal	Rabbit	8.39 g/kg	-
	LD50 Oral	Rat	636 mg/kg	-
2-methoxy-1-methylethyl acetate	LD50 Dermal	Rabbit	>5 g/kg	-
	LD50 Oral	Rat	8532 mg/kg	-
2-butoxyethanol	LD50 Dermal	Rabbit	220 mg/kg	-
	LD50 Oral	Rat	250 mg/kg	-
	LD50 Oral	Rat	250 mg/kg	-
xylene	LC50 Inhalation Gas.	Rat	6670 ppm	4 hours
	LC50 Inhalation Vapor	Rat	5000 ppm	4 hours
	LD50 Dermal	Rabbit	>1.7 g/kg	-
	LD50 Oral	Rat	4.3 g/kg	-
dimethyl phthalate ethylbenzene	LD50 Oral	Rat	6800 mg/kg	-
	LC50 Inhalation Vapor	Rat	4000 ppm	4 hours
	LD50 Dermal	Rabbit	17.8 g/kg	-
	LD50 Oral	Rat	3.5 g/kg	-

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Section 11. Toxicological information

Conclusion/Summary : There are no data available on the mixture itself.

Irritation/Corrosion

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Eyes : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Sensitization

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Mutagenicity

Conclusion/Summary : There are no data available on the mixture itself.

Carcinogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Classification

Product/ingredient name	OSHA	IARC	NTP
toluene	-	3	-
2-butoxyethanol	-	3	-
xylene	-	3	-
ethylbenzene	-	2B	-

Carcinogen Classification code:

IARC: 1, 2A, 2B, 3, 4

NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen

OSHA: +

Not listed/not regulated: -

Reproductive toxicity

Conclusion/Summary : There are no data available on the mixture itself.

Teratogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Specific target organ toxicity (single exposure)

Name	Category
toluene	Category 3
dimethyl phthalate	Category 3

Specific target organ toxicity (repeated exposure)

Name	Category
toluene	Category 2
2-butoxyethanol	Category 2
dimethyl phthalate	Category 1
ethylbenzene	Category 2

Product code UC56609

Date of issue 7 July 2015

Version 3

Product name DURANAR EZ LEMON YELLOW

Section 11. Toxicological Information

Target organs

: Contains material which causes damage to the following organs: blood, brain.
Contains material which may cause damage to the following organs: kidneys, lungs, the nervous system, the reproductive system, liver, heart, spleen, lymphatic system, gastrointestinal tract, upper respiratory tract, skin, bone marrow, central nervous system (CNS), ears, eye, lens or cornea.

Aspiration hazard

Name	Result
toluene	ASPIRATION HAZARD - Category 1
ethylbenzene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
Inhalation : No known significant effects or critical hazards.
Skin contact : Causes skin irritation. Defatting to the skin.
Ingestion : Harmful if swallowed.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
dryness
cracking
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

- Conclusion/Summary** : There are no data available on the mixture itself. Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting.

United States

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Product code UC56609

Date of issue 7 July 2016

Version 3

Product name DURANAR EZ LEMON YELLOW

Section 11. Toxicological information

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Short term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Long term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Potential chronic health effects

General : Causes damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : Suspected of damaging the unborn child.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	1686.7 mg/kg
Dermal	4728.8 mg/kg
Inhalation (gases)	20811.4 ppm
Inhalation (vapors)	43.62 mg/l
Inhalation (dusts and mists)	5.948 mg/l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
2-methoxy-1-methylethyl acetate	Acute LC50 161 mg/l Fresh water	Fish	96 hours
dimethyl phthalate	Acute LC50 50000 to 89000 µg/l Fresh water	Fish - <i>Lepomis macrochirus</i>	96 hours
ethylbenzene	Acute LC50 150 to 200 mg/l Fresh water	Fish - <i>Lepomis macrochirus</i> - Young of the year	96 hours

Persistence and degradability

United States

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Product code UC56609	Date of issue 7 July 2015	Version 3
Product name DURANAR EZ LEMON YELLOW		

Section 12. Ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
toluene	-	-	Readily
2-butoxyethanol	-	-	Readily
xylene	-	-	Readily
ethylbenzene	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
toluene	2.73	8.32	low
2-methoxy-1-methylethyl acetate	0.56	-	low
2-butoxyethanol	0.81	-	low
xylene	3.16	7.4 to 18.5	low
dimethyl phthalate	1.6	-	low
ethylbenzene	3.15	79.43	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

Product code UC56609	Date of issue 7 July 2015	Version 3
Product name DURANAR EZ LEMON YELLOW		

14. Transport information

	DOT	IMDG	IATA
UN number	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT
Transport hazard class(es)	3	3	3
Packing group	II	II	II
Environmental hazards	No.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.
Product RQ (lbs)	1245.6	Not applicable.	Not applicable.
RQ substances	(xylene, toluene)	Not applicable.	Not applicable.

Additional information

- DOT** : Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.
- IMDG** : None identified.
- IATA** : None identified.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

United States

United States Inventory (TSCA 8b) : All components are listed or exempted.

U.S. Federal regulations :

SARA 302/304

SARA 304 RQ : Not applicable.

Composition/Information on Ingredients

No products were found.

SARA 311/312

Classification : Fire hazard
Immediate (acute) health hazard
Delayed (chronic) health hazard

Composition/Information on Ingredients

Product code UC56609 Date of issue 7 July 2015 Version 3
 Product name DURANAR EZ LEMON YELLOW

Section 15. Regulatory information

Name	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Styrene, 1,1-difluoro-, homopolymer	Yes.	No.	No.	No.	No.
antimony nickel titanium oxide yellow	No.	No.	No.	Yes.	No.
toluene	Yes.	No.	No.	Yes.	Yes.
2-methoxy-1-methylethyl acetate	Yes.	No.	No.	No.	No.
2-butoxyethanol	Yes.	No.	No.	Yes.	Yes.
xylene	Yes.	No.	No.	Yes.	No.
dimethyl phthalate	No.	No.	No.	Yes.	Yes.
ethylbenzene	Yes.	No.	No.	Yes.	Yes.

SARA 313

Supplier notification	Chemical name	CAS number	Concentration
	antimony nickel titanium oxide yellow	8007-18-9	10 - 30
	toluene	108-88-3	10 - 30
	2-butoxyethanol	111-76-2	5 - 10
	xylene	1330-20-7	5 - 10
	dimethyl phthalate	131-11-3	5 - 10
	ethylbenzene	100-41-4	0.5 - 1.5

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health : 3 * Flammability : 3 Physical hazards : 0
 (*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)

Health : 3 Flammability : 3 Instability : 0

Date of previous issue : 4/15/2015

Organization that prepared the MSDS : EHS

Product code UC56609

Date of issue 7 July 2015

Version 3

Product name DURANAR EZ LEMON YELLOW

Section 16. Other information

Key to abbreviations

: ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

✓ Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.

United States

Page: 16/16

Thonie, Kimberly

From: McDonald, Beth A.
Sent: Monday, September 28, 2015 4:25 PM
To: Casey, Thomas J.(Springdale); Lowe, Marc
Subject: FW: Prime 1335454 BOL CAP00709220
Attachments: RE: 143320 - Trailer fire - Permission to dispose Prime#1335454

From: Joann Black [mailto:JBlack@primeinc.com]
Sent: Monday, September 28, 2015 4:08 PM
To: OSD; Schilling, Lucas; McDonald, Beth A.
Cc: Erika Duckworth; Gary Parnell; Jennifer Sanderson; Michelle Schaefer
Subject: RE: Prime 1335454 BOL CAP00709220

Please see attached email. The load will be disposed of by the tow company. Will send pics shortly.

From: OSD [mailto:OSD@ppg.com]
Sent: Monday, September 28, 2015 11:27 AM
To: Schilling, Lucas; McDonald, Beth A.
Cc: Joann Black
Subject: FW: Prime 1335454 BOL CAP00709220

FYI See below. Shipment from Springdale to Portland. Let the carrier know what the value of the shipment is and file a claim. This is not PAF product.

Thanks,

Adam Zargaroff
Transportation Coordinator
PPG Architectural Coatings

400 Bertha Lamme Drive
Cranberry Twp, PA, USA 16066
Tel: 724-742-5348
Fax: 724-987-4057
E-Mail: osd@ppg.com
Web: www.ppg.com



From: Joann Black [mailto:JBlack@primeinc.com]
Sent: Monday, September 28, 2015 11:09 AM
To: 'wanttlan@ppg.com'; OSD
Subject: RE: Prime 1335454 BOL CAP00709220

Good morning,

The load is a total loss. Can you please advise on load value.

Joann Black
Cargo Claims Rep - Northeast Region
Prime, Inc.
800-321-1192 X6597
Fax# 570-654-7099
Email: jblack@primeinc.com

From: Denise D. Clark
Sent: Sunday, September 27, 2015 11:37 AM
To: 'wanttlan@ppg.com'; 'osd@ppg.com'
Cc: Joann Black
Subject: Prime 1335454 BOL CAP00709220

*Please be advised that the trailer caught on fire and is being cleaned up.
Limited details available, will update you when we have more info*

Thank you,

*Denise Clark
Prime Inc, Cargo Claims
800-321-1192 ext 3536*

Thonie, Kimberly

From: Jill Buatte <JBuatte@primeinc.com>
Sent: Monday, September 28, 2015 3:42 PM
To: Erika Duckworth; Michelle Schaefer
Cc: Gary Parnell; Jennifer Sanderson; Joann Black
Subject: RE: 143320 - Trailer fire - Permission to dispose Prime#1335454

This is load out of PA.. Sandj area & looks like Blacj was working the claim. One of them should be better able to assist you.

Gary/Jenny/Joann—see below

Thanks!

Jill Buatte
Sales Assistant, Prime, Inc.
jbuatte@primeinc.com
Ph#800 848 4560 x4827
Fax#417 521 5555

From: Erika Duckworth
Sent: Monday, September 28, 2015 2:17 PM
To: Michelle Schaefer; Jill Buatte
Subject: FW: 143320 - Trailer fire - Permission to dispose

From: Erika Duckworth
Sent: Monday, September 28, 2015 2:16 PM
To: Joni Stewart
Subject: 143320 - Trailer fire - Permission to dispose

Has permission to dispose of been obtained for this trailer yet?

*** ACCIDENT REPORTED #0116457

The tow company that worked the accident is charging storage that the product is sitting on.

Thank you

Erika Duckworth
Road Assist
For email use road@primeinc.com It goes to entire
department, & is answered 24/7
Fax:417-521-5580

PRIME inc.

2740 N. Mayfair
Springfield MO. 65803
<http://www.primeinc.com/>

Thonie, Kimberly

From: Lowe, Marc
Sent: Wednesday, October 21, 2015 7:57 AM
To: Keith McCoy; David White
Cc: Poppaw, Cody
Subject: RE: 143320 - Trailer fire - Permission to dispose Prime#1335454

I believe PPG has a 6MB limit to eMail attachments. You may need to send multiple items separately.

From: Keith McCoy [mailto:KMcCoy@primeinc.com]
Sent: Wednesday, October 21, 2015 7:49 AM
To: Lowe, Marc; David White
Cc: Poppaw, Cody
Subject: RE: 143320 - Trailer fire - Permission to dispose Prime#1335454

We tried a couple of times but our emails keep getting rejected saying they are too large.

From: Lowe, Marc [mailto:mwlowe@ppg.com]
Sent: Wednesday, October 21, 2015 6:45 AM
To: Keith McCoy; David White
Cc: Poppaw, Cody
Subject: RE: 143320 - Trailer fire - Permission to dispose Prime#1335454

Prime team --

I am still looking for information from this incident. Are there photos and/or police report?

Please advise.

Marc

From: Keith McCoy [mailto:KMcCoy@primeinc.com]
Sent: Tuesday, October 13, 2015 4:36 PM
To: Poppaw, Cody; Lowe, Marc; David White
Subject: RE: 143320 - Trailer fire - Permission to dispose Prime#1335454

Sure. There was nothing to dispose of. Trailer burned to the ground.

Dave do you have photos/police report etc. for 1335454 tractor 651146 trailer 143320 please?

From: Poppaw, Cody [mailto:cpoppaw@ppg.com]
Sent: Tuesday, October 13, 2015 3:32 PM
To: Lowe, Marc; Keith McCoy
Subject: RE: 143320 - Trailer fire - Permission to dispose Prime#1335454

Keith,
Can you push this within your group?

Cody

From: Lowe, Marc
Sent: Tuesday, October 13, 2015 7:34 AM
To: Poppaw, Cody
Subject: RE: 143320 - Trailer fire - Permission to dispose Prime#1335454

Cody –

Would you please follow up with this? I have received no information from Prime on this.

Also, I would like to get pictures and a police report if possible.

Thanks.

Marc

From: Lowe, Marc
Sent: Monday, October 12, 2015 11:19 AM
To: Erika Duckworth
Cc: Jill Buatte; Gary Parnell; Jennifer Sanderson; Joann Black; Michelle Schaefer; McDonald, Beth A.; Poppaw, Cody; David Oheim
Subject: Re: 143320 - Trailer fire - Permission to dispose Prime#1335454

All -

I am still awaiting response to this. Thank you.

Marc Lowe

Sent from my iPhone

On Sep 30, 2015, at 3:42 PM, "Erika Duckworth" <EDuckworth@primeinc.com> wrote:

Adding acci - oheid

From: Lowe, Marc [<mailto:mwlowe@ppg.com>]
Sent: Wednesday, September 30, 2015 2:39 PM
To: Jill Buatte
Cc: Gary Parnell; Jennifer Sanderson; Joann Black; Erika Duckworth; Michelle Schaefer; McDonald, Beth A.; Poppaw, Cody
Subject: RE: 143320 - Trailer fire - Permission to dispose Prime#1335454

Hi, Jill –

PPG will need evidence/documentation of proper disposal of this material. Please provide this as soon as possible. Thanks.

Marc

From: Jill Buatte [<mailto:JBuatte@primeinc.com>]
Sent: Monday, September 28, 2015 3:42 PM
To: Erika Duckworth; Michelle Schaefer
Cc: Gary Parnell; Jennifer Sanderson; Joann Black
Subject: RE: 143320 - Trailer fire - Permission to dispose Prime#1335454

This is load out of PA.. Sandj area & looks like Blacj was working the claim. One of them should be better able to assist you.

Gary/Jenny/Joann—see below

Thanks!

Jill Buatte
Sales Assistant, Prime, Inc.
jbuatte@primeinc.com
Ph#800 848 4550 x4827
Fax#417 521 5555

From: Erika Duckworth
Sent: Monday, September 28, 2015 2:17 PM
To: Michelle Schaefer; Jill Buatte
Subject: FW: 143320 - Traller fire - Permission to dispose

From: Erika Duckworth
Sent: Monday, September 28, 2015 2:16 PM
To: Joni Stewart
Subject: 143320 - Trailer fire - Permission to dispose

Has permission to dispose of been obtained for this trailer yet?

*** ACCIDENT REPORTED #0116457

The tow company that worked the accident is charging storage that the product is sitting on.

Thank you

Erika Duckworth
Road Assist
For email use road@primeinc.com It goes to entire
department, & is answered 24/7
Fax:417-521-5580

<image001.png>
2740 N. Mayfair
Springfield MO. 65803
<http://www.primeinc.com/>

<image001.png>

Thonie, Kimberly

From: Lowe, Marc
Sent: Wednesday, October 21, 2015 6:52 PM
To: Frank, Joseph
Cc: Gallagher, Bill; Breski, Peter; Cramer, William; Bello, Anthony
Subject: Re: Truck fire - shipment from Springdale to Bushnell's

Joe - please see my note below on the alleged cause. Believes to be the brake assembly...

Sent from my iPhone

On Oct 21, 2015, at 5:04 PM, "Frank, Joseph" <josephfrank@ppg.com> wrote:

Ok thank you for the heads up. Let me know wha is determined as the cause.

Bill/Tony - FYI

Joe Frank
EHS Manager
IC North America
PPG Industries Inc
(412) 980-3792

On Oct 21, 2015, at 2:59 PM, Gallagher, Bill <bgallagher@ppg.com> wrote:

Joe,

The emails below and attached reports refer to a transportation incident / fire that resulted in some material being sent for waste disposal. I'm not sure you need to do anything but I thought you might want to be copied.

Bill

From: Lowe, Marc
Sent: Wednesday, October 21, 2015 1:02 PM
To: Breski, Peter; Casey, Thomas J.(Springdale); Donnelly, Dave; Poppaw, Cody; Gallagher, Bill
Subject: RE: Truck fire - shipment from Springdale to Bushnell's

Here are some incident reports, passed on to me by Idaho DEQ...

The Idaho State Police report states that the brake assembly was the cause of the fire.

Marc

From: Lowe, Marc

Sent: Wednesday, October 21, 2015 11:56 AM
To: Breski, Peter
Cc: Casey, Thomas J.(Springdale); Donnelly, Dave; Poppaw, Cody; Gallagher, Bill
Subject: RE: Truck fire - shipment from Springdale to Bushnell's

Pete –

This week, I have been in contact with the Idaho DEQ about this incident. It sounds like Prime did not involve Chemtrec in the incident. Furthermore, despite what Prime initially reported, I have learned that the materials in the fire were not completely consumed, and that a towing company took care of the cleanup, which may have involved taking our drums to a landfill.

I have since sent the Idaho DEQ MSDSs for the four materials that were on board, as well as a by-code quantity of the shipment consist. The DEQ plans to visit the landfill to find out more about what remaining materials there were.

I am still trying to piece together the whole event, and am waiting on some reports from the Idaho State Police and the fire department/responders. Information has been coming slowly.

Marc

From: Breski, Peter
Sent: Tuesday, October 06, 2015 8:33 AM
To: Lowe, Marc
Subject: RE: Truck fire - shipment from Springdale to Bushnell's

Marc,
Please, ensure a Transportation Incident Report is sent to me and I will get entered in EMEX.
Thank you,
Pete

From: Lowe, Marc
Sent: Sunday, September 27, 2015 9:17 PM
To: Gallagher, Bill; Breski, Peter
Subject: Truck fire - shipment from Springdale to Bushnell's

Bill / Pete –

FYI...

From: Lowe, Marc
Sent: Sunday, September 27, 2015 9:10 PM
To: Jones, Tom R.; Sawyer, Patty; Brand, Julia; Shingledecker, Jan; Malek, Lisa; Petted, Paul; Snyder, Patty; Theresa Smith (tsmith.bushnells@comcast.net); Murphy, Cassidy [C]; Beighley, Steven; Vidra, Albert J.; Dorbritz, Sharon; Wiskemann, Vincent; DeCubellis, Dominic; Chandler, Phil
Subject: Delayed shipment from Springdale to Bushnell's - truck fire

All -

Please be advised that an inbound shipment from Springdale to Portland is delayed due to a truck fire. Attached is the BOL from the shipment...

<< File: 0811B65356.pdf >>

OS orders on board are...

0811-30972-01-06-1

0811-36752-01-03-1

0811-36754-01-01-1

Materials on board this shipment are...

Prod Code	Size	Qty	Units
BP1Y100B	55	32	Drums
137D40	55	36	Drums
B123C24	55	4	Drums
UC56609	05	2	Pails

Here is a local news article...

<< File: KIVI_Article.png >>

Marc

On Sep 27, 2015, at 05:31, Gary Broderick

<GBroderick@primeinc.com<<mailto:GBroderick@primeinc.com>>> wrote:

Last report is tractor was separated from trailer , hwy patrol says trailer is fully engulfed, waiting for updating reports on needed cleanup , this is un1263 paint load.

Adding safety , Sunday supervisor , fleet manager OPS mgr.'s

Drivers are fine uninjured

From: Rebecca Stover

Sent: Sunday, September 27, 2015 3:52 AM

To: cpoppaw@ppg.com<<mailto:cpoppaw@ppg.com>>;

l.schilling@ppg.com<<mailto:l.schilling@ppg.com>>

Cc: Paul Novakowski; Katie Johnson; Paul Miller; Gary Broderick

Subject: CAP00709220 prime 1335454

Truck and trailer both on fire. Location is Hammett, ID. Will update further as more information becomes available. Thank you. Gary-can you loop everyone else in?

Rebecca Stover

Night Sales Coordinator

[Description: Description: prime-inc-logo]

rstover@primeinc.com<<mailto:rstover@primeinc.com>>

800-848-4560

CELL 417-631-3629

<image001.gif>

CONFIDENTIALITY NOTICE:

This email (including any attachments) is intended for the sole use of the intended recipient/s and may contain confidential information, which also may be legally privileged. Any reliance upon, access to, review, disclosure, copying, forwarding or other distribution of any or all of the contents in this message by others who are not the intended recipient/s is STRICTLY PROHIBITED. If you are not the intended recipient, please delete the message and all copies and confirm to the sender by email. Your cooperation is appreciated.

<H-2015-00193 Idaho State Communications Report.pdf>

<H-2015-00193 ISP Incident Report.pdf>

Thonie, Kimberly

From: Lowe, Marc
Sent: Wednesday, November 04, 2015 4:44 PM
To: Gallagher, Bill; Frank, Joseph; Breski, Peter
Subject: RE: Follow-up - truck fire in Hammett, ID

FYI... When I originally inquired about the aftermath of the fire, this is what I was told by the carrier. May I also add that Chemtrec was NOT called by the carrier when the incident occurred...

From: Keith McCoy [<mailto:KMcCoy@primeinc.com>]
Sent: Tuesday, October 13, 2015 4:36 PM
To: Poppaw, Cody; Lowe, Marc; David White
Subject: RE: 143320 - Trailer fire - Permission to dispose Prime#1335454

Sure. There was nothing to dispose of. Trailer burned to the ground.

Dave do you have photos/police report etc. for 1335454 tractor 651146 trailer 143320 please?

From: Poppaw, Cody [<mailto:cpoppaw@ppg.com>]
Sent: Tuesday, October 13, 2015 3:32 PM
To: Lowe, Marc; Keith McCoy
Subject: RE: 143320 - Trailer fire - Permission to dispose Prime#1335454

Keith,
Can you push this within your group?

Cody

From: Lowe, Marc
Sent: Tuesday, October 13, 2015 7:34 AM
To: Poppaw, Cody
Subject: RE: 143320 - Trailer fire - Permission to dispose Prime#1335454

Cody -

Would you please follow up with this? I have received no information from Prime on this.

Also, I would like to get pictures and a police report if possible.

Thanks.

Marc

From: Lowe, Marc
Sent: Monday, October 12, 2015 11:19 AM
To: Erika Duckworth
Cc: Jill Buatte; Gary Parnell; Jennifer Sanderson; Joann Black; Michelle Schaefer; McDonald, Beth A.; Poppaw, Cody; David Ohelm
Subject: Re: 143320 - Trailer fire - Permission to dispose Prime#1335454

All -

I am still awaiting response to this. Thank you.

Marc Lowe

Sent from my iPhone

On Sep 30, 2015, at 3:42 PM, "Erika Duckworth" <EDuckworth@primeinc.com> wrote:

Adding acct - oheid

From: Lowe, Marc [<mailto:mwlowe@ppg.com>]
Sent: Wednesday, September 30, 2015 2:39 PM
To: Jill Buatte
Cc: Gary Parnell; Jennifer Sanderson; Joann Black; Erika Duckworth; Michelle Schaefer; McDonald, Beth A.; Poppaw, Cody
Subject: RE: 143320 - Trailer fire - Permission to dispose Prime#1335454

Hi, Jill -

PPG will need evidence/documentation of proper disposal of this material. Please provide this as soon as possible. Thanks.

Marc

From: Jill Buatte [<mailto:JBuatte@primeinc.com>]
Sent: Monday, September 28, 2015 3:42 PM
To: Erika Duckworth; Michelle Schaefer
Cc: Gary Parnell; Jennifer Sanderson; Joann Black
Subject: RE: 143320 - Trailer fire - Permission to dispose Prime#1335454

This is load out of PA.. Sandj area & looks like Blacj was working the claim. One of them should be better able to assist you.

Gary/Jenny/Joann—see below

Thanks!

Jill Buatte
Sales Assistant, Prime, Inc.
jbuatte@primeinc.com
Ph#800 848 4580 x4827
Fax#417 521 5555

From: Erika Duckworth
Sent: Monday, September 28, 2015 2:17 PM
To: Michelle Schaefer; Jill Buatte
Subject: FW: 143320 - Trailer fire - Permission to dispose

From: Erika Duckworth
Sent: Monday, September 28, 2015 2:16 PM

To: Jonl Stewart
Subject: 143320 - Trailer fire - Permission to dispose

Has permission to dispose of been obtained for this trailer yet?

***** ACCIDENT REPORTED #0116457**

The tow company that worked the accident is charging storage that the product is sitting on.

Thank you

Erika Duckworth

Road Assist

For email use road@primeinc.com it goes to entire department, & is answered 24/7

Fax:417-521-5580

<image001.png>

2740 N. Mayfair

Springfield MO. 65803

<http://www.primeinc.com/>

<image001.png>

Thonie, Kimberly

From: Lowe, Marc
Sent: Tuesday, November 10, 2015 11:13 AM
To: David White; Guiser, Bill
Cc: Jeff Chism; Keith McCoy
Subject: RE: Fire dept. report - Prime claim # 116457

Thanks

-----Original Message-----

From: David White [mailto:DWhite@primeinc.com]
Sent: Tuesday, November 10, 2015 11:04 AM
To: Lowe, Marc; Guiser, Bill
Cc: Jeff Chism; Keith McCoy
Subject: Fire dept. report - Prime claim # 116457

Attached is a copy of fire department report which confirms the clean-up actions after the fire. I spoke with Premium Environmental Service (PES) and they have contracted with Couder White Excavation (recommended by State of Idaho) for the clean-up. November 9th (yesterday) was supposed to be the day of clean-up but it was raining and still is today, so they are waiting for weather to clear.

Thanks

David White
Prime Inc.
Safety Supervisor
Office: 417-521-3830
Cell: 417.425.6060
www.primeinc.com

Thonie, Kimberly

From: David White <DWhite@primeinc.com>
Sent: Tuesday, November 10, 2015 11:14 AM
To: Lowe, Marc; Guiser, Bill
Cc: Jeff Chism; Keith McCoy
Subject: RE: Fire dept. report - Prime claim # 116457

I should have clarified, the Couder White clean-up scheduled for 11/9 is for paint removal on highway.

Thanks

-----Original Message-----

From: David White
Sent: Tuesday, November 10, 2015 10:04 AM
To: 'mlowe@ppg.com'; 'guiser@ppg.com'
Cc: Jeff Chism; Keith McCoy
Subject: Fire dept. report - Prime claim # 116457

Attached is a copy of fire department report which confirms the clean-up actions after the fire. I spoke with Premium Environmental Service (PES) and they have contracted with Couder White Excavation (recommended by State of Idaho) for the clean-up. November 9th (yesterday) was supposed to be the day of clean-up but it was raining and still is today, so they are waiting for weather to clear.

Thanks

David White
Prime Inc.
Safety Supervisor
Office: 417-521-3830
Cell: 417.425.6060
www.primeinc.com

Thonie, Kimberly

From: Lowe, Marc
Sent: Wednesday, November 25, 2015 9:54 AM
To: David White; Poppaw, Cody
Cc: Keith McCoy
Subject: RE: 143320 - Trailer fire - Permission to dispose Prime#1335454

Sure thing – here are the sheets for the four different materials that were on board...



MSDS_UC56609..., MSDS_137D40.p..., MSDS_B123C24..., MSDS_BP1Y100...

From: David White [mailto:DWhite@primeinc.com]
Sent: Wednesday, November 25, 2015 9:41 AM
To: Poppaw, Cody; Lowe, Marc
Cc: Keith McCoy
Subject: RE: 143320 - Trailer fire - Permission to dispose Prime#1335454

Good morning, I need the SDS for this shipment for disposal purposes. Please forward it to my attention.

Thank you

David White
Prime Inc.
Safety Supervisor
Office: 417-521-3830
Cell: 417.425.6060
www.primeinc.com

From: Keith McCoy
Sent: Tuesday, October 13, 2015 3:36 PM
To: 'Poppaw, Cody'; Lowe, Marc; David White
Subject: RE: 143320 - Trailer fire - Permission to dispose Prime#1335454

Sure. There was nothing to dispose of. Trailer burned to the ground.

Dave do you have photos/police report etc. for 1335454 tractor 651146 trailer 143320 please?

From: Poppaw, Cody [mailto:cpoppaw@ppg.com]
Sent: Tuesday, October 13, 2015 3:32 PM
To: Lowe, Marc; Keith McCoy
Subject: RE: 143320 - Trailer fire - Permission to dispose Prime#1335454

Keith,
Can you push this within your group?

Cody

From: Lowe, Marc
Sent: Tuesday, October 13, 2015 7:34 AM
To: Poppaw, Cody
Subject: RE: 143320 - Trailer fire - Permission to dispose Prime#1335454

Cody –

Would you please follow up with this? I have received no information from Prime on this.

Also, I would like to get pictures and a police report if possible.

Thanks.

Marc

From: Lowe, Marc
Sent: Monday, October 12, 2015 11:19 AM
To: Erika Duckworth
Cc: Jill Buatte; Gary Parnell; Jennifer Sanderson; Joann Black; Michelle Schaefer; McDonald, Beth A.; Poppaw, Cody; David Ohelm
Subject: Re: 143320 - Trailer fire - Permission to dispose Prime#1335454

All -

I am still awaiting response to this. Thank you.

Marc Lowe

Sent from my iPhone

On Sep 30, 2015, at 3:42 PM, "Erika Duckworth" <EDuckworth@primeinc.com> wrote:

Adding acct - oheid

From: Lowe, Marc [<mailto:mwlowe@ppg.com>]
Sent: Wednesday, September 30, 2015 2:39 PM
To: Jill Buatte
Cc: Gary Parnell; Jennifer Sanderson; Joann Black; Erika Duckworth; Michelle Schaefer; McDonald, Beth A.; Poppaw, Cody
Subject: RE: 143320 - Trailer fire - Permission to dispose Prime#1335454

Hi, Jill –

PPG will need evidence/documentation of proper disposal of this material. Please provide this as soon as possible. Thanks.

Marc

From: Jill Buatte [<mailto:JBuatte@primeinc.com>]
Sent: Monday, September 28, 2015 3:42 PM
To: Erika Duckworth; Michelle Schaefer
Cc: Gary Parnell; Jennifer Sanderson; Joann Black
Subject: RE: 143320 - Trailer fire - Permission to dispose Prime#1335454

This is load out of PA. Sandj area & looks like Blacj was working the claim. One of them should be better able to assist you.

Gary/Jenny/Joann—see below

Thanks!

Jill Buatte
Sales Assistant, Prime, Inc.
jbuatte@primeinc.com
Ph#800 848 4560 x4827
Fax#417 521 5555

From: Erika Duckworth
Sent: Monday, September 28, 2015 2:17 PM
To: Michelle Schaefer; Jill Buatte
Subject: FW: 143320 - Trailer fire - Permission to dispose

From: Erika Duckworth
Sent: Monday, September 28, 2015 2:16 PM
To: Joni Stewart
Subject: 143320 - Trailer fire - Permission to dispose

Has permission to dispose of been obtained for this trailer yet?

*** ACCIDENT REPORTED #0116457

The tow company that worked the accident is charging storage that the product is sitting on.

Thank you

Erika Duckworth
Road Assist
For email use road@primeinc.com it goes to entire department, & is answered 24/7
Fax:417-521-5580

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<image001.png>

SAFETY DATA SHEET



Date of issue/Date of revision 7 July 2016

Version 3

Section 1. Identification

Product name : DURANAR EZ LEMON YELLOW
Product code : UC56609
Other means of identification : Not available.
Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Product use : Industrial applications.
Use of the substance/ mixture : Coating. Paints. Painting-related materials.
Uses advised against : Not applicable.

Supplier : PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272

Emergency telephone number : (412) 434-4515 (U.S.)
(514) 845-1320 (Canada)
01-800-00-21-400 (Mexico)

Technical Phone Number : (724) 274-7900 (SPRINGDALE, PA) 8:00 a.m. - 5:00 p.m. EST

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 2
ACUTE TOXICITY (oral) - Category 4
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
CARCINOGENICITY - Category 2
TOXIC TO REPRODUCTION (Unborn child) - Category 2
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1
Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 27.4%

GHS label elements

United States Page: 1/16

EPA CID Case No. 1003-0101: 0637

Product code UC56609	Date of issue 7 July 2015	Version 3
Product name DURANAR EZ LEMON YELLOW		

Section 2. Hazards identification

Hazard pictograms :



Signal word :

Danger

Hazard statements :

Highly flammable liquid and vapor.
Harmful if swallowed.
Causes serious eye irritation.
Causes skin irritation.
Suspected of damaging the unborn child.
Suspected of causing cancer.
Causes damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention :

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.

Response :

Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage :

Store locked up. Store in a well-ventilated place. Keep cool.

Disposal :

Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements :

Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated.

Hazards not otherwise classified :

Prolonged or repeated contact may dry skin and cause irritation.

Section 3. Composition/information on ingredients

Substance/mixture :

Mixture

Product name :

DURANAR EZ LEMON YELLOW

Product code UC58609	Date of issue 7 July 2015	Version 3
Product name DURANAR EZ LEMON YELLOW		

Section 3. Composition/information on ingredients

Ingredient name	%	CAS number
ethylene, 1,1-difluoro-, homopolymer	≥10 - <25	24937-78-9
antimony nickel titanium oxide yellow	≥10 - <25	8007-18-9
toluene	≥13 - <20	108-88-3
2-methoxy-1-methylethyl acetate	≥10 - <25	108-85-6
2-butoxyethanol	≥8 - <9	111-76-2
xylene	≥6.8 - <8.3	1330-20-7
dimethyl phthalate	≥5 - <10	131-11-3
ethylbenzene	≥1.2 - <1.47	100-41-4

SUB codes represent substances without registered CAS Numbers.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

- Eye contact** : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.
- Inhalation** : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
- Ingestion** : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : Causes skin irritation. Defatting to the skin.
- Ingestion** : Harmful if swallowed.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness

Product code UC56609

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Product name DURANAR EZ LEMON YELLOW

Section 4. First aid measures

- Inhalation** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
Irritation
redness
dryness
cracking
reduced fetal weight
Increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

Specific hazards arising from the chemical : Highly flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
halogenated compounds

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

United States

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Product code UC56609

Date of issue 7 July 2016

Version 3

Product name DURANAR EZ LEMON YELLOW

Section 5. Fire-fighting measures

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary

United States

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EPA CID Case No. 1003-0101: 0641

P341

Product code UC56608

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Version 3

Product name DURANAR EZ LEMON YELLOW

Section 7. Handling and storage**Advice on general occupational hygiene**

measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities

: Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection**Control parameters****Occupational exposure limits**

Ingredient name	Exposure limits
ethylene, 1,1-difluoro-, homopolymer	OSHA PEL (United States). TWA: 15 mg/m ³ TWA: 5 mg/m ³ Form: Respirable TWA: 15 mg/m ³ Form: Total dust ACGIH TLV (United States). TWA: 3 mg/m ³ Form: Respirable TWA: 10 mg/m ³ Form: Total dust
antimony nickel titanium oxide yellow	OSHA PEL (United States). TWA: 0.5 mg/m ³ , (as Sb) TWA: 0.5 mg/m ³ , (as Sb) Form: Total dust ACGIH TLV (United States). TWA: 0.2 mg/m ³ Form: Total dust
toluene	OSHA PEL (United States, 2/2013). TWA: 1 mg/m ³ , (as Ni) 8 hours. OSHA PEL Z2 (United States, 2/2013). AMP: 500 ppm 10 minutes. CEIL: 300 ppm TWA: 200 ppm 8 hours. ACGIH TLV (United States, 4/2014). TWA: 20 ppm 8 hours.
2-methoxy-1-methylethyl acetate	IPEL (PPG, 4/2009). TWA: 50 ppm ACGIH TLV (United States, 4/2014). TWA: 20 ppm 8 hours.
2-butoxyethanol	OSHA PEL (United States, 2/2013). Absorbed through skin. TWA: 240 mg/m ³ 8 hours. TWA: 50 ppm 8 hours. ACGIH TLV (United States, 4/2014).
xylene	
United States Page: 8/18	

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Product name DURANAR EZ LEMON YELLOW		

Section 8. Exposure controls/personal protection

dimethyl phthalate	STEL: 651 mg/m ³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 434 mg/m ³ 8 hours. TWA: 100 ppm 8 hours. OSHA PEL (United States, 2/2013). TWA: 435 mg/m ³ 8 hours. TWA: 100 ppm 8 hours. ACGIH TLV (United States, 4/2014). TWA: 5 mg/m ³ 8 hours. OSHA PEL (United States, 2/2013). TWA: 5 mg/m ³ 8 hours. ACGIH TLV (United States, 4/2014). TWA: 20 ppm 8 hours. OSHA PEL (United States, 2/2013). TWA: 435 mg/m ³ 8 hours. TWA: 100 ppm 8 hours.
ethylbenzene	STEL: 651 mg/m ³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 434 mg/m ³ 8 hours. TWA: 100 ppm 8 hours. OSHA PEL (United States, 2/2013). TWA: 435 mg/m ³ 8 hours. TWA: 100 ppm 8 hours. ACGIH TLV (United States, 4/2014). TWA: 5 mg/m ³ 8 hours. OSHA PEL (United States, 2/2013). TWA: 5 mg/m ³ 8 hours. ACGIH TLV (United States, 4/2014). TWA: 20 ppm 8 hours. OSHA PEL (United States, 2/2013). TWA: 435 mg/m ³ 8 hours. TWA: 100 ppm 8 hours.

Key to abbreviations

A	= Acceptable Maximum Peak	S	= Potential skin absorption
ACGIH	= American Conference of Governmental Industrial Hygienists.	SR	= Respiratory sensitization
C	= Ceiling Limit	SS	= Skin sensitization
F	= Fume	STEL	= Short term Exposure limit values
IPEL	= Internal Permissible Exposure Limit	TD	= Total dust
OSHA	= Occupational Safety and Health Administration.	TLV	= Threshold Limit Value
R	= Respirable	TWA	= Time Weighted Average
Z	= OSHA 29CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances		

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

- Appropriate engineering controls:** Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
- Environmental exposure controls:** Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Chemical splash goggles.

Skin protection

Product code UC56809

Date of issue 7 July 2015

Version 3

Product name DURANAR EZ LEMON YELLOW

Section 8. Exposure controls/personal protection

Hand protection	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Gloves	: For prolonged or repeated handling, use the following type of gloves: Recommended: butyl rubber
Body protection	: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
Other skin protection	: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Section 9. Physical and chemical properties

Appearance

Physical state	: Liquid.
Color	: Not available.
Odor	: Not available.
Odor threshold	: Not available.
pH	: Not available.
Melting point	: Not available.
Boiling point	: >37.78°C (>100°F)
Flash point	: Closed cup: 15.56°C (60°F)
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Flammability (solid, gas)	: Not available.
Lower and upper explosive (flammable) limits	: Lower: 1.1%
Evaporation rate	: 0.89 (butyl acetate = 1)
Vapor pressure	: 1.5 kPa (11.1 mm Hg) [room temperature]
Vapor density	: Not available.
Relative density	: 1.28
Density (lbs / gal)	: 10.52
Solubility	: Insoluble in the following materials: cold water.

United States

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EPA CID Case No. 1003-0101: 0644

P344

Product code UC56609	Date of issue 7 July 2015	Version 3
Product name DURANAR EZ LEMON YELLOW		

Section 9. Physical and chemical properties

Partition coefficient: n-octanol/water	: Not available.
Viscosity	: Kinematic (40°C (104°F)): >0.21 cm ² /s (>21 cSt)
Volatility	: 71% (v/v), 52.48% (w/w)
% Solid, (w/w)	: 47.52

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.
Incompatible materials	: Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.
Hazardous decomposition products	: Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Ethene, 1,1-difluoro-, homopolymer toluene	LD50 Oral	Rat	60 g/kg	-
	LC50 Inhalation Vapor	Rat	49 g/m ³	4 hours
	LC50 Inhalation Vapor	Rat	8000 ppm	4 hours
	LD50 Dermal	Rabbit	8.39 g/kg	-
2-methoxy-1-methylethyl acetate	LD50 Oral	Rat	636 mg/kg	-
	LD50 Dermal	Rabbit	>5 g/kg	-
2-butoxyethanol	LD50 Oral	Rat	8532 mg/kg	-
	LD50 Dermal	Rabbit	220 mg/kg	-
	LD50 Oral	Rat	250 mg/kg	-
xylene	LC50 Inhalation Gas.	Rat	6670 ppm	4 hours
	LC50 Inhalation Vapor	Rat	5000 ppm	4 hours
	LD50 Dermal	Rabbit	>1.7 g/kg	-
	LD50 Oral	Rat	4.3 g/kg	-
dimethyl phthalate ethylbenzene	LD50 Oral	Rat	6800 mg/kg	-
	LC50 Inhalation Vapor	Rat	4000 ppm	4 hours
	LD50 Dermal	Rabbit	17.8 g/kg	-
	LD50 Oral	Rat	3.5 g/kg	-

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Product code UC56609

Date of issue 7 July 2015

Version 3

Product name DURANAR EZ LEMON YELLOW

Section 11. Toxicological information**Conclusion/Summary** : There are no data available on the mixture itself.**Irritation/Corrosion****Conclusion/Summary****Skin** : There are no data available on the mixture itself.**Eyes** : There are no data available on the mixture itself.**Respiratory** : There are no data available on the mixture itself.**Sensitization****Conclusion/Summary****Skin** : There are no data available on the mixture itself.**Respiratory** : There are no data available on the mixture itself.**Mutagenicity****Conclusion/Summary** : There are no data available on the mixture itself.**Carcinogenicity****Conclusion/Summary** : There are no data available on the mixture itself.**Classification**

Product/ingredient name	OSHA	IARC	NTP
toluene	-	3	-
2-butoxyethanol	-	3	-
xylene	-	3	-
ethylbenzene	-	2B	-

Carcinogen Classification code:

IARC: 1, 2A, 2B, 3, 4

NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen

OSHA: +

Not listed/not regulated: -

Reproductive toxicity**Conclusion/Summary** : There are no data available on the mixture itself.**Teratogenicity****Conclusion/Summary** : There are no data available on the mixture itself.**Specific target organ toxicity (single exposure)**

Name	Category
toluene	Category 3
dimethyl phthalate	Category 3

Specific target organ toxicity (repeated exposure)

Name	Category
toluene	Category 2
2-butoxyethanol	Category 2
dimethyl phthalate	Category 1
ethylbenzene	Category 2

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EPA CID Case No. 1003-0101: 0646

Product code UC55609	Date of issue 7 July 2015	Version 3
Product name DURANAR EZ LEMON YELLOW		

Section 11. Toxicological Information

Target organs : Contains material which causes damage to the following organs: blood, brain.
Contains material which may cause damage to the following organs: kidneys, lungs, the nervous system, the reproductive system, liver, heart, spleen, lymphatic system, gastrointestinal tract, upper respiratory tract, skin, bone marrow, central nervous system (CNS), ears, eye, lens or cornea.

Aspiration hazard

Name	Result
toluene	ASPIRATION HAZARD - Category 1
ethylbenzene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

Potential acute health effects

Eye contact : Causes serious eye irritation.
Inhalation : No known significant effects or critical hazards.
Skin contact : Causes skin irritation. Defatting to the skin.
Ingestion : Harmful if swallowed.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness
Inhalation : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations
Skin contact : Adverse symptoms may include the following:
irritation
redness
dryness
cracking
reduced fetal weight
increase in fetal deaths
skeletal malformations
Ingestion : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Conclusion/Summary : There are no data available on the mixture itself. Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting.

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Section 11. Toxicological information

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Short term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Long term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Potential chronic health effects

General : Causes damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : Suspected of damaging the unborn child.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	1686.7 mg/kg
Dermal	4728.8 mg/kg
Inhalation (gases)	20811.4 ppm
Inhalation (vapors)	43.62 mg/l
Inhalation (dusts and mists)	5.948 mg/l

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
2-methoxy-1-methylethyl acetate	Acute LC50 161 mg/l Fresh water	Fish	96 hours
dimethyl phthalate	Acute LC50 50000 to 60000 µg/l Fresh water	Fish - Lepomis macrochirus	96 hours
ethylbenzene	Acute LC50 150 to 200 mg/l Fresh water	Fish - Lepomis macrochirus - Young of the year	96 hours

Persistence and degradability

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Product code UC66609	Date of issue 7 July 2015	Version 3
Product name DURANAR EZ LEMON YELLOW		

Section 12. Ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
toluene	-	-	Readily
2-butoxyethanol	-	-	Readily
xylene	-	-	Readily
ethylbenzene	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
toluene	2.73	8.32	low
2-methoxy-1-methylethyl acetate	0.56	-	low
2-butoxyethanol	0.81	-	low
xylene	3.18	7.4 to 18.5	low
dimethyl phthalate	1.6	-	low
ethylbenzene	3.15	79.43	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

Product code UC56609	Date of issue 7 July 2015	Version 3
Product name DURANAR EZ LEMON YELLOW		

14. Transport information

	DOT	IMDG	IATA
UN number	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT
Transport hazard class (es)	3	3	3
Packing group	II	II	II
Environmental hazards	No.	No.	No.
Marine pollutant substances	Not applicable.	Not applicable.	Not applicable.
Product RQ (lbs)	1245.6	Not applicable.	Not applicable.
RQ substances	(xylene, toluene)	Not applicable.	Not applicable.

Additional information

DOT : Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.

IMDG : None identified.

IATA : None identified.

Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

United States

United States Inventory (TSCA 8b) : All components are listed or exempted.

U.S. Federal regulations :

SARA 302/304

SARA 304 RQ : Not applicable.

Composition/Information on Ingredients

No products were found.

SARA 311/312

Classification : Fire hazard
Immediate (acute) health hazard
Delayed (chronic) health hazard

Composition/Information on Ingredients

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Product code UC56609	Date of issue 7 July 2015	Version 3
Product name DURANAR EZ LEMON YELLOW		

Section 15. Regulatory information

Name	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Ethene, 1,1-difluoro-, homopolymer	Yes.	No.	No.	No.	No.
antimony nickel titanium oxide yellow	No.	No.	No.	Yes.	No.
toluene	Yes.	No.	No.	Yes.	Yes.
2-methoxy-1-methylethyl acetate	Yes.	No.	No.	No.	No.
2-butoxyethanol	Yes.	No.	No.	Yes.	Yes.
xylene	Yes.	No.	No.	Yes.	No.
dimethyl phthalate	No.	No.	No.	Yes.	Yes.
ethylbenzene	Yes.	No.	No.	Yes.	Yes.

SARA 313

	Chemical name	CAS number	Concentration
Supplier notification	antimony nickel titanium oxide yellow	8007-18-9	10 - 30
	toluene	108-88-3	10 - 30
	2-butoxyethanol	111-76-2	5 - 10
	xylene	1330-20-7	5 - 10
	dimethyl phthalate	131-11-3	5 - 10
	ethylbenzene	100-41-4	0.5 - 1.5

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

Section 16. Other Information

Hazardous Material Information System (U.S.A.)

Health : 3 * Flammability : 3 Physical hazards : 0

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-8868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)

Health : 3 Flammability : 3 Instability : 0

Date of previous issue : 4/15/2015

Organization that prepared the MSDS : EHS

Product code UC55609	Date of issue 7 July 2016	Version 3
Product name DURANAR EZ LEMON YELLOW		

Section 16. Other Information

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

☑ Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.

SAFETY DATA SHEET



Date of issue/Date of revision 23 June 2015

Version 4

Section 1. Identification

Product name : 6431D BACKR 4
Product code : 137D40
Other means of identification : Not available.
Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Product use : Industrial applications.
Use of the substance/ mixture : Coating. Paints. Painting-related materials.
Uses advised against : Not applicable.

Supplier : PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272
Emergency telephone number : (412) 434-4515 (U.S.)
(514) 845-1320 (Canada)
01-800-00-21-400 (Mexico)
Technical Phone Number : (724) 274-7900 (SPRINGDALE, PA) 8:00 a.m. - 5:00 p.m. EST

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 3
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
CARCINOGENICITY - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 36.3%

GHS label elements

Hazard pictograms :



United States

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EPA CID Case No. 1003-0101: 0653

Product code 137D40	Date of Issue 23 June 2016	Version 4
Product name 6431D BACKR 4		

Section 2. Hazards identification

Signal word	: Danger
Hazard statements	: Flammable liquid and vapor. Causes serious eye damage. Suspected of causing cancer. May cause drowsiness and dizziness. May cause damage to organs through prolonged or repeated exposure.
Precautionary statements	
Prevention	: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Do not breathe vapor.
Response	: Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.
Storage	: Store locked up. Store in a well-ventilated place. Keep cool.
Disposal	: Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements	: Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. 1-component mixtures: formaldehyde is released during curing. Formaldehyde may cause irreversible effects, is irritating to the mucous membranes and may cause skin sensitization. Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated.
Hazards not otherwise classified	: Prolonged or repeated contact may dry skin and cause irritation.

Section 3. Composition/information on ingredients

Substance/mixture	: Mixture
Product name	: 6431D BACKR 4

Ingredient name	%	CAS number
Solvent naphtha (petroleum), heavy arom.	≥18 - <25	64742-94-5
titanium dioxide	≥10 - <25	13463-67-7
2-butoxyethanol	≥3 - <3.7	111-76-2
butan-1-ol	≥2.1 - <3	71-36-3
naphthalene	≥1 - <3	91-20-3
2-methylpropan-1-ol	≥1 - <1.5	78-83-1

SUB codes represent substances without registered CAS Numbers.

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Product code 137D40

Date of issue 23 June 2015

Version 4

Product name 6431D BACKR 4

Section 3. Composition/information on ingredients

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

- | | |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Eye contact | : Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention. |
| Inhalation | : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. |
| Skin contact | : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners. |
| Ingestion | : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting. |

Most important symptoms/effects, acute and delayed

Potential acute health effects

- | | |
|--------------|------------------------------------------------------------------------------------------|
| Eye contact | : Causes serious eye damage. |
| Inhalation | : Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness. |
| Skin contact | : Defatting to the skin. May cause skin dryness and irritation. |
| Ingestion | : Can cause central nervous system (CNS) depression. |

Over-exposure signs/symptoms

- | | |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Eye contact | : Adverse symptoms may include the following:
pain
watering
redness |
| Inhalation | : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness |
| Skin contact | : Adverse symptoms may include the following:
pain or irritation
redness
dryness
cracking
blistering may occur |
| Ingestion | : Adverse symptoms may include the following:
stomach pains |

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Product code 137D40	Date of issue 23 June 2015	Version 4
Product name 6431D BACKR 4		
Section 4. First aid measures		

Indication of immediate medical attention and special treatment needed, if necessary

- | | |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Notes to physician | : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. |
| Specific treatments | : No specific treatment. |
| Protection of first-aiders | : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. |

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- | | |
|---------------------------------------|------------------------------------------------------------------|
| Suitable extinguishing media | : Use dry chemical, CO ₂ , water spray (fog) or foam. |
| Unsuitable extinguishing media | : Do not use water jet. |

Specific hazards arising from the chemical	: Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
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Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides metal oxide/oxides
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Special protective actions for fire-fighters	: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
-----------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Special protective equipment for fire-fighters	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
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Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Product code 137D40

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Product name 6431D BACKR 4

Section 7. Handling and storage

- Special precautions** : Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Vapors are heavier than air and may spread along floors. If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Do not store above the following temperatures: 35°C (95°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Solvent naphtha (petroleum), heavy arom. titanium dioxide	None. OSHA PEL (United States, 2/2013). TWA: 15 mg/m ³ 8 hours. Form: Total dust ACGIH TLV (United States, 4/2014). TWA: 10 mg/m ³ 8 hours.
2-butoxyethanol	ACGIH TLV (United States, 4/2014). TWA: 20 ppm 8 hours. OSHA PEL (United States, 2/2013). Absorbed through skin. TWA: 240 mg/m ³ 8 hours.
butan-1-ol	TWA: 50 ppm 8 hours. ACGIH TLV (United States, 4/2014). TWA: 20 ppm 8 hours. OSHA PEL (United States, 2/2013). TWA: 300 mg/m ³ 8 hours.
naphthalene	TWA: 100 ppm 8 hours. ACGIH TLV (United States, 4/2014). Absorbed through skin. TWA: 52 mg/m ³ 8 hours.
2-methylpropan-1-ol	TWA: 10 ppm 8 hours. OSHA PEL (United States, 2/2013). TWA: 50 mg/m ³ 8 hours. ACGIH TLV (United States, 4/2014). TWA: 152 mg/m ³ 8 hours.

United States

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Section 8. Exposure controls/personal protection

TWA: 50 ppm 8 hours.
OSHA PEL (United States, 2/2013).
 TWA: 300 mg/m³ 8 hours.
 TWA: 100 ppm 8 hours.

Key to abbreviations

A ₁ = Acceptable Maximum Peak ACGIH = American Conference of Governmental Industrial Hygienists. C = Ceiling Limit F = Fume IPEL = Internal Permissible Exposure Limit OSHA = Occupational Safety and Health Administration. R = Respirable Z = OSHA 29CFR 1910.1200 Subpart Z – Toxic and Hazardous Substances	S = Potential skin absorption SR = Respiratory sensitization SS = Skin sensitization STEL = Short term Exposure limit values TD = Total dust TLV = Threshold Limit Value TWA = Time Weighted Average	
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Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Chemical splash goggles and face shield.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Gloves : For prolonged or repeated handling, use the following type of gloves:

Recommended: nitrile rubber, butyl rubber

Section 8. Exposure controls/personal protection

- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Section 9. Physical and chemical properties**Appearance**

- Physical state** : Liquid.
- Color** : Not available.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : Not available.
- Boiling point** : >37.78°C (>100°F)
- Flash point** : Closed cup: 28.89°C (84°F)
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Lower: 1.1%
- Evaporation rate** : 0.16 (butyl acetate = 1)
- Vapor pressure** : 0.65 kPa (4.9 mm Hg) [room temperature]
- Vapor density** : Not available.
- Relative density** : 1.21
- Density (lbs / gal)** : 10.1
- Solubility** : Insoluble in the following materials: cold water.
- Partition coefficient: n-octanol/water** : Not available.
- Viscosity** : Kinematic (40°C (104°F)): >0.21 cm²/s (>21 cSt)
- Volatility** : 50% (v/v), 36.42% (w/w)
- % Solid. (w/w)** : 63.68

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Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.
Incompatible materials	: Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.
Hazardous decomposition products	: Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Section 11. Toxicological Information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Solvent naphtha (petroleum), heavy arom.	LD50 Dermal	Rabbit	>1.693 g/kg	-
titanium dioxide	LD50 Oral	Rat	3.2 g/kg	-
	LD50 Oral	Rat	>10 g/kg	-
	LD50 Dermal	Rabbit	220 mg/kg	-
2-butoxyethanol	LD50 Oral	Rat	250 mg/kg	-
	LC50 Inhalation Vapor	Rat	24000 mg/m ³	4 hours
	LC50 Inhalation Vapor	Rat	8000 ppm	4 hours
butan-1-ol	LD50 Dermal	Rabbit	3400 mg/kg	-
	LD50 Oral	Rat	790 mg/kg	-
	LD50 Dermal	Rabbit	>20 g/kg	-
naphthalene	LD50 Oral	Rat	490 mg/kg	-
	LC50 Inhalation Vapor	Rat	6500 mg/m ³	4 hours
	LD50 Dermal	Rabbit	2 g/kg	-
2-methylpropan-1-ol	LD50 Oral	Rat	2480 mg/kg	-

Conclusion/Summary : There are no data available on the mixture itself.

Irritation/Corrosion

Conclusion/Summary

Skin	: There are no data available on the mixture itself.
Eyes	: There are no data available on the mixture itself.
Respiratory	: There are no data available on the mixture itself.

Sensitization

Conclusion/Summary

Skin	: There are no data available on the mixture itself.
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Section 11. Toxicological information

Respiratory : There are no data available on the mixture itself.

Mutagenicity

Conclusion/Summary : There are no data available on the mixture itself.

Carcinogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Classification

Product/ingredient name	OSHA	IARC	NTP
Titanium dioxide	-	2B	-
2-butoxyethanol	-	3	-
naphthalene	-	2B	Reasonably anticipated to be a human carcinogen.

Carcinogen Classification code:

IARC: 1, 2A, 2B, 3, 4

NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen

OSHA: +

Not listed/not regulated: -

Reproductive toxicity

Conclusion/Summary : There are no data available on the mixture itself.

Teratogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Specific target organ toxicity (single exposure)

Name	Category
Solvent naphtha (petroleum), heavy arom.	Category 3
butan-1-ol	Category 3
2-methylpropan-1-ol	Category 3

Specific target organ toxicity (repeated exposure)

Name	Category
2-butoxyethanol	Category 2
naphthalene	Category 2

Target organs : Contains material which causes damage to the following organs: brain.
Contains material which may cause damage to the following organs: blood, kidneys, lungs, liver, spleen, lymphatic system, upper respiratory tract, skin, bone marrow, central nervous system (CNS), ears, eye, lens or cornea.

Aspiration hazard

Name	Result
Solvent naphtha (petroleum), heavy arom.	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness.

Skin contact : Defatting to the skin. May cause skin dryness and irritation.

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Section 11. Toxicological information

Ingestion : Can cause central nervous system (CNS) depression.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain
watering
redness

Inhalation : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness

Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
dryness
cracking
blistering may occur

Ingestion : Adverse symptoms may include the following:
stomach pains

Delayed and immediate effects and also chronic effects from short and long term exposure

Conclusion/Summary : There are no data available on the mixture itself. 1-component mixtures: formaldehyde is released during curing. Formaldehyde may cause irreversible effects, is irritating to the mucous membranes and may cause skin sensitization. Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Short term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Long term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Potential chronic health effects

General : May cause damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

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Section 11. Toxicological information

Carcinogenicity	: Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	2821.8 mg/kg
Dermal	2510.2 mg/kg
Inhalation (gases)	95110 ppm
Inhalation (vapors)	135.8 mg/l
Inhalation (dusts and mists)	31.7 mg/l

Section 12. Ecological information

Toxicity

Product/Ingredient name	Result	Species	Exposure
Manganese dioxide	Acute LC50 >100 mg/l Fresh water	Daphnia - Daphnia magna	48 hours

Persistence and degradability

Product/Ingredient name	Aquatic half-life	Photolysis	Biodegradability
2-butoxyethanol	-	-	Readily

Bioaccumulative potential

Product/Ingredient name	LogP _{ow}	BCF	Potential
2-butoxyethanol	0.81	-	low
butan-1-ol	0.88	-	low
naphthalene	3.3	85.11	low
2-methylpropan-1-ol	0.76	-	low

Mobility in soil

Soil/water partition coefficient (K _{oc})	: Not available.
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Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

14. Transport information

	DOT	IMDG	IATA
UN number	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT
Transport hazard class (es)	3	3	3
Packing group	III	III	III
Environmental hazards	No.	Yes.	No.
Marine pollutant substances	Not applicable.	(Solvent naphtha (petroleum), heavy aromatic, naphthalene)	Not applicable.
Product RQ (lbs)	3839.9	Not applicable.	Not applicable.
RQ substances	(naphthalene, xylene)	Not applicable.	Not applicable.

Additional information

DOT : Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.

IMDG : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.

IATA : The environmentally hazardous substance mark may appear if required by other transportation regulations.

Special precautions for user : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

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Section 15. Regulatory Information

United States

United States Inventory (TSCA 8b) : All components are listed or exempted.

U.S. Federal regulations :

SARA 302/304

SARA 304 RQ : Not applicable.

Composition/Information on Ingredients

No products were found.

SARA 311/312

Classification : Fire hazard
Immediate (acute) health hazard
Delayed (chronic) health hazard

Composition/Information on Ingredients

Name	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Solvent naphtha (petroleum), heavy arom.	Yes.	No.	No.	Yes.	No.
titanium dioxide	No.	No.	No.	No.	Yes.
2-butoxyethanol	Yes.	No.	No.	Yes.	Yes.
butan-1-ol	Yes.	No.	No.	Yes.	No.
naphthalene	Yes.	No.	Yes.	Yes.	Yes.
2-methylpropan-1-ol	Yes.	No.	No.	Yes.	No.

SARA 313

Supplier notification	Chemical name	CAS number	Concentration
	2-butoxyethanol	111-76-2	1 - 5
	butan-1-ol	71-36-3	1 - 5
	naphthalene	91-20-3	1 - 5

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

Section 16. Other Information

Hazardous Material Information System (U.S.A.)

Health : 3 * Flammability : 3 Physical hazards : 0

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6888.

The customer is responsible for determining the PPE code for this material.

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Section 16. Other information

National Fire Protection Association (U.S.A.)

Health : 3 Flammability : 3 Instability : 0

Date of previous issue : 6/5/2016

Organization that prepared the MSDS : EHS

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

☑ Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PFG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.

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SAFETY DATA SHEET



Date of issue/Date of revision 3 July 2015

Version 4

Section 1. Identification

Product name : FG CLR PC3200 4
Product code : B123C24
Other means of identification : Not available.
Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Product use : Industrial applications.
Use of the substance/ mixture : Coating. Paints. Painting-related materials.
Uses advised against : Not applicable.

Supplier : PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272

Emergency telephone number : (412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
01-800-00-21-400 (Mexico)

Technical Phone Number : (724) 274-7900 (SPRINGDALE, PA) 8:00 a.m. - 5:00 p.m. EST

Section 2. Hazards Identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 3
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
CARCINOGENICITY - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 40.2%

GHS label elements

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EPA CID Case No. 1003-0101: 0668

Section 2. Hazards identification**Hazard pictograms****Signal word**: **Danger****Hazard statements**

: Flammable liquid and vapor.
 Causes serious eye damage.
 Causes skin irritation.
 Suspected of causing cancer.
 May cause drowsiness and dizziness.
 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements**Prevention**

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Wash hands thoroughly after handling.

Response

: Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.

Storage

: Store locked up. Store in a well-ventilated place. Keep cool.

Disposal

: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

: Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. 1-component mixtures: formaldehyde is released during curing. Formaldehyde may cause irreversible effects, is irritating to the mucous membranes and may cause skin sensitization. Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated.

Hazards not otherwise classified

: May form explosive peroxides. Hazardous reactions or instability may occur under certain conditions of storage or use. Prolonged or repeated contact may dry skin and cause irritation.

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Section 3. Composition/information on ingredients

Substance/mixture : Mixture
Product name : FG CLR PC3200 4

Ingredient name	%	CAS number
Solvent naphtha (petroleum), heavy arom.	≥14 - <25	84742-94-6
2-(2-butoxyethoxy)ethyl acetate	≥5 - <10	124-17-4
butan-1-ol	≥4 - <5	71-36-3
2-ethylhexan-1-ol	≥3.3 - <5	104-76-7
Solvent naphtha (petroleum), light aromatic	≥2 - <3	84742-95-6
2-methylpropan-1-ol	≥2 - <3	78-83-1
naphthalene	≥1 - <3	81-20-3
1,2,4-trimethylbenzene	≥1.3 - <2	95-63-6

SUB codes represent substances without registered CAS Numbers.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

- Eye contact : Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.
- Inhalation : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- Skin contact : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
- Ingestion : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact : Causes serious eye damage.
- Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness.
- Skin contact : Causes skin irritation. Defatting to the skin.
- Ingestion : Can cause central nervous system (CNS) depression.

Over-exposure signs/symptoms

Section 4. First aid measures

- Eye contact** : Adverse symptoms may include the following:
pain
watering
redness
- Inhalation** : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
- Skin contact** : Adverse symptoms may include the following:
pain or irritation
redness
dryness
cracking
blistering may occur
- Ingestion** : Adverse symptoms may include the following:
stomach pains

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures**Extinguishing media**

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

- Specific hazards arising from the chemical** : Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

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Section 5. Fire-fighting measures

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flames, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

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Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Special precautions** : Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Vapors are heavier than air and may spread along floors. May form explosive peroxides. Keep away from combustible materials. Avoid shock and friction. Avoid all possible sources of ignition (spark or flame). If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

- Conditions for safe storage, including any incompatibilities** : Do not store above the following temperature: 35°C (95°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Solvent naphtha (petroleum), heavy arom. 2-(2-butoxyethoxy)ethyl acetate butan-1-ol	None. None. ACGIH TLV (United States, 4/2014). TWA: 20 ppm 8 hours. OSHA PEL (United States, 2/2013). TWA: 300 mg/m ³ 8 hours. TWA: 100 ppm 8 hours.
2-ethylhexan-1-ol Solvent naphtha (petroleum), light aromatic 2-methylpropan-1-ol	None. None. ACGIH TLV (United States, 4/2014). TWA: 152 mg/m ³ 8 hours.

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Section 8. Exposure controls/personal protection

naphthalene	<p>TWA: 50 ppm 8 hours. OSHA PEL (United States, 2/2013). TWA: 300 mg/m³ 8 hours. TWA: 100 ppm 8 hours. ACGIH TLV (United States, 4/2014). Absorbed through skin. TWA: 52 mg/m³ 8 hours. TWA: 10 ppm 8 hours. OSHA PEL (United States, 2/2013). TWA: 50 mg/m³ 8 hours. TWA: 10 ppm 8 hours. ACGIH TLV (United States, 4/2014). TWA: 123 mg/m³ 8 hours. TWA: 25 ppm 8 hours.</p>
1,2,4-trimethylbenzene	

Key to abbreviations

A = Acceptable Medium Peak	S = Potential skin absorption
ACGIH = American Conference of Governmental Industrial Hygienists.	SR = Respiratory sensitization
C = Ceiling Limit	SS = Skin sensitization
F = Fume	STEL = Short term Exposure limit values
IPEL = Internal Permissible Exposure Limit	TD = Total dust
OSHA = Occupational Safety and Health Administration.	TLV = Threshold Limit Value
R = Respirable	TWA = Time Weighted Average
Z = OSHA 29CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances	

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Chemical splash goggles and face shield.
Skin protection

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Product code B123C24

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Section 8. Exposure controls/personal protection

- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Gloves** : For prolonged or repeated handling, use the following type of gloves:

Recommended: butyl rubber, nitrile rubber
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Liquid.
- Color** : Not available.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : Not available.
- Boiling point** : >37.78°C (>100°F)
- Flash point** : Closed cup: 48.89°C (120°F)
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Lower: 1.2%
- Evaporation rate** : 0.2 (butyl acetate = 1)
- Vapor pressure** : 0.67 kPa (5 mm Hg) [room temperature]
- Vapor density** : Not available.
- Relative density** : 1.04
- Density (lbs / gal)** : 8.68
- Solubility** : Insoluble in the following materials: cold water.

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Section 9. Physical and chemical properties

Partition coefficient: n-octanol/water	: Not available.
Viscosity	: Kinematic (40°C (104°F)): >0.21 cm ² /s (>21 cSt)
Volatility	: 50% (v/v), 42.87% (w/w)
% Solid. (w/w)	: 57.13

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: The product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.
Incompatible materials	: Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.
Hazardous decomposition products	: Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/Ingredient name	Result	Species	Dose	Exposure
Solvent naphtha (petroleum), heavy arom.	LD50 Dermal	Rabbit	>1.693 g/kg	-
	LD50 Oral	Rat	3.2 g/kg	-
2-(2-butoxyethoxy)ethyl acetate	LC50 Inhalation Dusts and mists	Rat	72500 mg/m ³	4 hours
	LD50 Dermal	Rabbit	5.75 g/kg	-
butan-1-ol	LD50 Oral	Rat	6500 mg/kg	-
	LC50 Inhalation Vapor	Rat	24000 mg/m ³	4 hours
	LC50 Inhalation Vapor	Rat	8000 ppm	4 hours
	LD50 Dermal	Rabbit	3400 mg/kg	-
2-ethylhexan-1-ol	LD50 Oral	Rat	790 mg/kg	-
	LD50 Dermal	Rabbit	1970 mg/kg	-
	LD50 Oral	Rat	2.05 g/kg	-
Solvent naphtha (petroleum), light aromatic	LD50 Dermal	Rabbit	3.48 g/kg	-
	LD50 Oral	Rat	8400 mg/kg	-
2-methylpropan-1-ol	LC50 Inhalation Vapor	Rat	6500 mg/m ³	4 hours
	LD50 Dermal	Rabbit	2 g/kg	-
	LD50 Oral	Rat	2460 mg/kg	-

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Section 11. Toxicological Information

naphthalene	LD50 Dermal	Rabbit	>20 g/kg	-
1,2,4-trimethylbenzene	LD50 Oral	Rat	490 mg/kg	-
	LC50 Inhalation Vapor	Rat	18000 mg/m³	4 hours
	LD50 Oral	Rat	5 g/kg	-

Conclusion/Summary : There are no data available on the mixture itself.

Irritation/Corrosion

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Eyes : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Sensitization

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Mutagenicity

Conclusion/Summary : There are no data available on the mixture itself.

Carcinogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Classification

Product/ingredient name	OSHA	IARC	NTP
naphthalene	-	2B	Reasonably anticipated to be a human carcinogen.

Carcinogen Classification code:

IARC: 1, 2A, 2B, 3, 4

NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen

OSHA: +

Not listed/not regulated: -

Reproductive toxicity

Conclusion/Summary : There are no data available on the mixture itself.

Teratogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Specific target organ toxicity (single exposure)

Name	Category
Solvent naphtha (petroleum), heavy arom.	Category 3
butan-1-ol	Category 3
2-ethylhexan-1-ol	Category 3
Solvent naphtha (petroleum), light aromatic	Category 3
2-methylpropan-1-ol	Category 3
1,2,4-trimethylbenzene	Category 3

Specific target organ toxicity (repeated exposure)

Name	Category
2-ethylhexan-1-ol	Category 2
naphthalene	Category 2

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Section 11. Toxicological information

Target organs : Contains material which causes damage to the following organs: brain, skin, central nervous system (CNS).
Contains material which may cause damage to the following organs: blood, kidneys, lungs, liver, heart, upper respiratory tract, ears, eye, lens or cornea, testes.

Aspiration hazard

Name	Result
Solvent naphtha (petroleum), heavy arom.	ASPIRATION HAZARD - Category 1
Solvent naphtha (petroleum), light aromatic	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

Potential acute health effects

Eye contact : Causes serious eye damage.
Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness.
Skin contact : Causes skin irritation. Defatting to the skin.
Ingestion : Can cause central nervous system (CNS) depression.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain
watering
redness
Inhalation : Adverse symptoms may include the following:
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
Skin contact : Adverse symptoms may include the following:
pain or irritation
redness
dryness
cracking
blistering may occur
Ingestion : Adverse symptoms may include the following:
stomach pains

Delayed and immediate effects and also chronic effects from short and long term exposure

Conclusion/Summary : There are no data available on the mixture itself. 1-component mixtures: formaldehyde is released during curing. Formaldehyde may cause irreversible effects, is irritating to the mucous membranes and may cause skin sensitization. Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion

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Section 11. Toxicological information

may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Short term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Long term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Potential chronic health effects

General : May cause damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	3407 mg/kg
Dermal	2926.1 mg/kg
Inhalation (gases)	52051.8 ppm
Inhalation (vapors)	80.82 mg/l
Inhalation (dusts and mists)	17.35 mg/l

Section 12. Ecological information

Toxicity

Not available.

Persistence and degradability

Not available.

Bioaccumulative potential

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Section 12. Ecological information

Product/ingredient name	LogP _{ow}	BCF	Potential
2-(2-butoxyethoxy)ethyl acetate	1.7	-	low
butan-1-ol	0.88	-	low
2-methylpropan-1-ol	0.76	-	low
naphthalene	3.3	85.11	low
1,2,4-trimethylbenzene	3.63	120.23	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees, Section 6. Accidental release measures

14. Transport Information

	DOT	IMDG	IATA
UN number	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT
Transport hazard class (es)	3	3	3
Packing group	III	III	III
Environmental hazards	No.	Yes.	No.
Marine pollutant substances	Not applicable.	(Solvent naphtha (petroleum), heavy aromatic, Solvent naphtha (petroleum), light aromatic)	Not applicable.

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14. Transport Information

Product RQ (lbs)	5188.1	Not applicable.	Not applicable.
RQ substances	(naphthalene, xylene)	Not applicable.	Not applicable.

Additional information

- DOT** : This product may be re-classified as "Combustible Liquid," unless transported by vessel or aircraft. Non-bulk packages (less than or equal to 119 gal) of combustible liquids are not regulated as hazardous materials in package sizes less than the product reportable quantity.
- IMDG** : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.
- IATA** : The environmentally hazardous substance mark may appear if required by other transportation regulations.

Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information

United States

United States Inventory (TSCA 8b) : All components are listed or exempted.

U.S. Federal regulations :

SARA 302/304

SARA 304 RQ : Not applicable.

Composition/Information on Ingredients

No products were found.

SARA 311/312

Classification : Fire hazard
Immediate (acute) health hazard
Delayed (chronic) health hazard

Composition/Information on Ingredients

Name	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Solvent naphtha (petroleum), heavy arom.	Yes.	No.	No.	Yes.	No.
2-(2-butoxyethoxy)ethyl acetate	No.	No.	No.	Yes.	No.
butan-1-ol	Yes.	No.	No.	Yes.	No.
2-ethylhexan-1-ol	Yes.	No.	No.	Yes.	Yes.
Solvent naphtha (petroleum), light aromatic	Yes.	No.	No.	Yes.	No.
2-methylpropan-1-ol	Yes.	No.	No.	Yes.	No.
naphthalene	Yes.	No.	Yes.	Yes.	Yes.
1,2,4-trimethylbenzene	Yes.	No.	No.	Yes.	No.

SARA 313

Chemical name	CAS number	Concentration
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Section 15. Regulatory information

Supplier notification	: 2-(2-butoxyethoxy)ethyl acetate	124-17-4	5 - 10
	butan-1-ol	71-36-3	1 - 5
	naphthalene	91-20-3	1 - 5
	1,2,4-trimethylbenzene	95-83-6	0.5 - 1.5

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

Section 16. Other information

Hazardous Material Information System (U.S.A.)

Health : 3 * Flammability : 2 Physical hazards : 0

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6866.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)

Health : 3 Flammability : 2 Instability : 0

Date of previous issue : 6/5/2015

Organization that prepared the MSDS : EHS

Key to abbreviations

- : ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
- UN = United Nations

✓ Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.

SAFETY DATA SHEET



Date of Issue/Date of revision 19 August 2015

Version 4

Section 1. Identification

Product name : UNIVERSAL URETHANE YELLOW PRIMER
Product code : BP1Y100B
Other means of identification : Not available.
Product type : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Product use : Industrial applications.
Use of the substance/ mixture : Coating. Paints. Painting-related materials.
Uses advised against : Not applicable.

Supplier : PPG Industries, Inc.
One PPG Place
Pittsburgh, PA 15272

Emergency telephone number : (412) 434-4515 (U.S.)
(514) 645-1320 (Canada)
01-800-00-21-400 (Mexico)

Technical Phone Number : (724) 274-7900 (SPRINGDALE, PA) 8:00 a.m. - 5:00 p.m. EST

Section 2. Hazards Identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 3
ACUTE TOXICITY (oral) - Category 4
ACUTE TOXICITY (Inhalation) - Category 4
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 1A
TOXIC TO REPRODUCTION (Fertility) - Category 1B
TOXIC TO REPRODUCTION (Unborn child) - Category 1B
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract Irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 34.3%

GHS label elements

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Product code BP1Y100B

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Product name UNIVERSAL URETHANE YELLOW PRIMER

Section 2. Hazards identification

Hazard pictograms



Signal word

: **Danger**

Hazard statements

: Flammable liquid and vapor.
Harmful if swallowed or if inhaled.
Causes serious eye irritation.
Causes skin irritation.
May cause an allergic skin reaction.
May cause cancer.
May damage fertility or the unborn child.
May cause respiratory irritation.
May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

Response

: Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage

: Store locked up. Store in a well-ventilated place. Keep cool.

Disposal

: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

: Sanding and grinding dusts may be harmful if inhaled. Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. NTP, IARC and OSHA have classified chromium (+6) compounds as carcinogenic. Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated.

Hazards not otherwise classified

: Prolonged or repeated contact may dry skin and cause irritation.

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Product code BP1Y100B

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Product name UNIVERSAL URETHANE YELLOW PRIMER

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Product name : UNIVERSAL URETHANE YELLOW PRIMER

Ingredient name	%	CAS number
Polyester resin	≥10 - <25	Not available.
Solvent naphtha (petroleum), light aromatic	≥10 - <16	64742-95-6
strontium chromate	≥10 - <25	7769-06-2
titanium dioxide	≥5 - <10	13463-67-7
2-butoxyethanol	≥8 - <10	111-76-2
1,2,4-trimethylbenzene	≥7 - <9	95-63-6
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	≥5 - <10	85940-94-8
Kaolin	≥3 - <6	1332-58-7
butan-1-ol	≥2 - <3	71-36-3
trimethylbenzene	≥2 - <3	25551-13-7
2-methoxy-1-methylethyl acetate	≥1 - <3	108-65-6
dibutyltin dilaurate	≥0.3 - <1	77-58-7
cumene	≥0.3 - <1	98-82-8
barium chromate	≥0.3 - <1	10294-40-3

SUB codes represent substances without registered CAS Numbers.

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

- Eye contact** : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.
- Inhalation** : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
- Ingestion** : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed**Potential acute health effects**

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Harmful if inhaled. May cause respiratory irritation.
- Skin contact** : Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.

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Product code BP1Y100B

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Product name UNIVERSAL URETHANE YELLOW PRIMER

Section 4. First aid measures

Ingestion : Harmful if swallowed.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
irritation
redness
dryness
cracking
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet.

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Product code BP1Y100B

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Product name UNIVERSAL URETHANE YELLOW PRIMER

Section 5. Fire-fighting measures

- Specific hazards arising from the chemical** : Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
phosphorus oxides
halogenated compounds
metal oxide/oxides
- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flames, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

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Section 6. Accidental release measures**Large spill**

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage**Precautions for safe handling****Protective measures**

: Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Special precautions

: Ingestion of product or cured coating may be harmful. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Vapors are heavier than air and may spread along floors. If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.

Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities

: Do not store above the following temperature: 35°C (95°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Product code **BP1Y100B**Date of issue **19 August 2016** Version **4**Product name **UNIVERSAL URETHANE YELLOW PRIMER****Section 8. Exposure controls/personal protection****Control parameters****Occupational exposure limits**

Ingredient name	Exposure limits
polyester resin Solvent naphtha (petroleum), light aromatic strontium chromate	None. None. ACGIH TLV (United States, 4/2014). TWA: 0.0005 mg/m ³ , (measured as Cr) 8 hours. OSHA PEL 22 (United States, 2/2013). CEIL: 1 mg/10m ³ OSHA PEL (United States, 2/2013). TWA: 0.005 mg/m ³ , (as Cr) 8 hours. OSHA PEL (United States, 2/2013). TWA: 15 mg/m ³ 8 hours. Form: Total dust ACGIH TLV (United States, 4/2014). TWA: 10 mg/m ³ 8 hours.
titanium dioxide	ACGIH TLV (United States, 4/2014). TWA: 20 ppm 8 hours. OSHA PEL (United States, 2/2013). Absorbed through skin. TWA: 240 mg/m ³ 8 hours. TWA: 50 ppm 8 hours.
2-butoxyethanol	ACGIH TLV (United States, 4/2014). TWA: 123 mg/m ³ 8 hours. TWA: 25 ppm 8 hours.
1,2,4-trimethylbenzene	None. ACGIH TLV (United States, 4/2014). TWA: 2 mg/m ³ 8 hours. Form: Respirable fraction OSHA PEL (United States, 2/2013). TWA: 5 mg/m ³ 8 hours. Form: Respirable fraction
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked Kaolin	TWA: 15 mg/m ³ 8 hours. Form: Total dust ACGIH TLV (United States, 4/2014). TWA: 20 ppm 8 hours. OSHA PEL (United States, 2/2013). TWA: 300 mg/m ³ 8 hours. TWA: 100 ppm 8 hours.
butan-1-ol	ACGIH TLV (United States, 4/2014). TWA: 123 mg/m ³ 8 hours. TWA: 25 ppm 8 hours.
trimethylbenzene	IPEL (PPG, 4/2009). TWA: 50 ppm
2-methoxy-1-methylethyl acetate	ACGIH TLV (United States, 4/2014). Absorbed through skin. STEL: 0.2 mg/m ³ , (as Sn) 15 minutes. TWA: 0.1 mg/m ³ , (as Sn) 8 hours. OSHA PEL (United States, 2/2013). TWA: 0.1 mg/m ³ , (as Sn) 8 hours. OSHA PEL (United States).
dibutyltin dilaurate	

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Section 8. Exposure controls/personal protection

cumene	<p>TWA: 0.1 mg/m³, (as Sn) ACGIH TLV (United States, 4/2014). TWA: 50 ppm 8 hours. OSHA PEL (United States, 2/2013). Absorbed through skin. TWA: 245 mg/m³ 8 hours. TWA: 50 ppm 8 hours.</p>
barium chromate	<p>ACGIH TLV (United States, 4/2014). TWA: 0.01 mg/m³, (measured as Cr) 8 hours. Form: Insoluble OSHA PEL (United States, 2/2013). TWA: 0.005 mg/m³, (as Cr) 8 hours. OSHA PEL Z2 (United States, 2/2013). CEIL: 1 mg/10m³ OSHA PEL (United States). TWA: 5 mg/m³</p>

Key to abbreviations

A	= Acceptable Maximum Peak	S	= Potential skin absorption
ACGIH	= American Conference of Governmental Industrial Hygienists.	SR	= Respiratory sensitization
C	= Ceiling Limit	SS	= Skin sensitization
F	= Fume	STEL	= Short term Exposure limit values
IPEL	= Internal Permissible Exposure Limit	TD	= Total dust
OSHA	= Occupational Safety and Health Administration.	TLV	= Threshold Limit Value
R	= Respirable	TWA	= Time Weighted Average
Z	= OSHA 29CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances		

Consult local authorities for acceptable exposure limits.

Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Chemical splash goggles.

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Product name UNIVERSAL URETHANE YELLOW PRIMER

Section 8. Exposure controls/personal protection

Skin protection

Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Gloves

: butyl rubber

Body protection

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

: Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Restrictions on use

: Persons with a history of asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used.

Section 9. Physical and chemical properties

Appearance

Physical state

: Liquid.

Color

: Not available.

Odor

: Not available.

Odor threshold

: Not available.

pH

: Not available.

Melting point

: Not available.

Boiling point

: >37.78°C (>100°F)

Flash point

: Closed cup: 44.44°C (112°F)

Auto-ignition temperature

: Not available.

Decomposition temperature

: Not available.

Flammability (solid, gas)

: Not available.

Lower and upper explosive (flammable) limits

: Lower: 0.9%

Evaporation rate

: 0.21 (butyl acetate = 1)

Vapor pressure

: 0.68 kPa (5.1 mm Hg) [room temperature]

Vapor density

: Not available.

Relative density

: 1.24

Density (lbs / gal)

: 10.35

Solubility

: insoluble in the following materials: cold water.

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Section 9. Physical and chemical properties

Partition coefficient: n-octanol/water : Not available.

Viscosity : Kinematic (40°C (104°F)): >0.21 cm²/s (>21 cSt)

Volatility : 58% (w/v), 39.87% (w/w)

% Solid. (w/w) : 60.13

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : When exposed to high temperatures may produce hazardous decomposition products. Refer to protective measures listed in sections 7 and 8.

Incompatible materials : Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.

Hazardous decomposition products : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Section 11. Toxicological information**Information on toxicological effects****Acute toxicity**

Product/ingredient name	Result	Species	Dose	Exposure
solvent naphtha (petroleum), light aromatic	LD50 Dermal	Rabbit	3.48 g/kg	-
strontium chromate	LD50 Oral	Rat	8400 mg/kg	-
titanium dioxide	LD50 Oral	Rat	3118 mg/kg	-
2-butoxyethanol	LD50 Oral	Rat	>10 g/kg	-
	LD50 Dermal	Rabbit	220 mg/kg	-
	LD50 Oral	Rat	250 mg/kg	-
1,2,4-trimethylbenzene	LC50 Inhalation Vapor	Rat	18000 mg/m ³	4 hours
	LD50 Oral	Rat	5 g/kg	-
Kaolin	LD50 Oral	Rat	>5000 mg/kg	-
butan-1-ol	LC50 Inhalation Vapor	Rat	24000 mg/m ³	4 hours
	LC50 Inhalation Vapor	Rat	8000 ppm	4 hours
	LD50 Dermal	Rabbit	3400 mg/kg	-
	LD50 Oral	Rat	790 mg/kg	-
trimethylbenzene	LD50 Oral	Rat	8970 mg/kg	-
2-methoxy-1-methyl ethyl acetate	LD50 Dermal	Rabbit	>5 g/kg	-
	LD50 Oral	Rat	8532 mg/kg	-
dibutyltin dilaurate	LD50 Oral	Rat	175 mg/kg	-

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Section 11. Toxicological Information

cumene	LC50 Inhalation Vapor	Rat	39000 mg/m ³	4 hours
	LD50 Dermal	Rabbit	12.3 g/kg	-
	LD50 Oral	Rat	1400 mg/kg	-

Conclusion/Summary : There are no data available on the mixture itself.

Iritation/Corrosion

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Eyes : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Sensitization

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Mutagenicity

Conclusion/Summary : There are no data available on the mixture itself.

Carcinogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Classification

Product/ingredient name	OSHA	IARC	NTP
chromium chromate	+	1	Known to be a human carcinogen.
titanium dioxide	-	2B	-
2-butoxyethanol	-	3	-
cumene	-	2B	Reasonably anticipated to be a human carcinogen.
barium chromate	+	1	Known to be a human carcinogen.

Carcinogen Classification code:

IARC: 1, 2A, 2B, 3, 4

NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen

OSHA: +

Not listed/not regulated: -

Reproductive toxicity

Conclusion/Summary : There are no data available on the mixture itself.

Teratogenicity

Conclusion/Summary : There are no data available on the mixture itself.

Specific target organ toxicity (single exposure)

Name	Category
Solvent naphtha (petroleum), light aromatic	Category 3
1,2,4-trimethylbenzene	Category 3
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	Category 3
butan-1-ol	Category 3
dibutyltin dilaurate	Category 1
cumene	Category 3

Specific target organ toxicity (repeated exposure)

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Section 11. Toxicological information

Name	Category
strontium chromate	Category 2
2-butoxyethanol	Category 2
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	Category 2
dibutyltin dilaurate	Category 1
cumene	Category 2
barium chromate	Category 2

Target organs : Contains material which causes damage to the following organs: brain, central nervous system (CNS).
 Contains material which may cause damage to the following organs: blood, kidneys, lungs, liver, spleen, lymphatic system, upper respiratory tract, skin, bone marrow, ears, eye, lens or cornea, stomach.

Aspiration hazard

Name	Result
Solvent naphtha (petroleum), light aromatic	ASPIRATION HAZARD - Category 1
cumene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

Potential acute health effects

Eye contact : Causes serious eye irritation.
Inhalation : Harmful if inhaled. May cause respiratory irritation.
Skin contact : Causes skin irritation. Defatting to the skin. May cause an allergic skin reaction.
Ingestion : Harmful if swallowed.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
 pain or irritation
 watering
 redness

Inhalation : Adverse symptoms may include the following:
 respiratory tract irritation
 coughing
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations

Skin contact : Adverse symptoms may include the following:
 irritation
 redness
 dryness
 cracking
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations

Ingestion : Adverse symptoms may include the following:
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

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Section 11. Toxicological information

Conclusion/Summary : There are no data available on the mixture itself. Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. If splashed in the eyes, the liquid may cause irritation and reversible damage. Ingestion may cause nausea, diarrhea and vomiting. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Short term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Long term exposure

Potential immediate effects : There are no data available on the mixture itself.

Potential delayed effects : There are no data available on the mixture itself.

Potential chronic health effects

Product/ingredient name	Result	Species	Dose	Exposure
Flexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	Sub-chronic NOAEL Inhalation Dusts and mists	Rat	5 mg/m ³	90 days

General : May cause damage to organs through prolonged or repeated exposure. Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : May cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : May damage the unborn child.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : May damage fertility.

Numerical measures of toxicity**Acute toxicity estimates**

Route	ATE value
Oral	1352.4 mg/kg
Dermal	4380 mg/kg
Inhalation (gases)	17295.1 ppm
Inhalation (vapors)	51.5 mg/l
Inhalation (dusts and mists)	5.765 mg/l

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Section 12. Ecological information**Toxicity**

Product/ingredient name	Result	Species	Exposure
titanium dioxide	Acute LC50 >100 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
2-methoxy-1-methylethyl acetate	Acute LC50 161 mg/l Fresh water	Fish	96 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
2-butoxyethanol	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
2-butoxyethanol	0.81	-	low
1,2,4-trimethylbenzene	3.63	120.23	low
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	-3.6	-	low
butan-1-ol	0.88	-	low
trimethylbenzene	3.4 to 3.8	-	low
2-methoxy-1-methylethyl acetate	0.56	-	low
dibutyltin dilaurate	3.12	-	low
cumene	3.66	35.48	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional/local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

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Section 13. Disposal considerations

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

14. Transport information

	DOT	IMDG	IATA
UN number	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT
Transport hazard class (es)	3	3	3
Packing group	III	III	III
Environmental hazards	No.	Yes.	No.
Marine pollutant substances	Not applicable.	(Solvent naphtha (petroleum), light aromatic, strontium chromate)	Not applicable.
Product RQ (lbs)	94.319	Not applicable.	Not applicable.
RQ substances	(strontium chromate, xylene)	Not applicable.	Not applicable.

Additional information

- DOT** : This product may be re-classified as "Combustible Liquid," unless transported by vessel or aircraft. Non-bulk packages (less than or equal to 119 gal) of combustible liquids are not regulated as hazardous materials in package sizes less than the product reportable quantity.
- IMDG** : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.
- IATA** : The environmentally hazardous substance mark may appear if required by other transportation regulations.

Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Section 15. Regulatory information**United States**

United States Inventory (TSCA 8b) : All components are listed or exempted.

SARA 302/304

SARA 304 RQ : Not applicable.

Composition/information on ingredients

No products were found.

SARA 311/312

Classification : Fire hazard
Immediate (acute) health hazard
Delayed (chronic) health hazard

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Product code BP1Y100B

Date of issue 19 August 2015 Version 4

Product name UNIVERSAL URETHANE YELLOW PRIMER

Section 15. Regulatory information**Composition/information on ingredients**

Name	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Polyester resin	No.	No.	No.	Yes.	No.
Solvent naphtha (petroleum), light aromatic	Yes.	No.	No.	Yes.	No.
strontium chromate	No.	No.	No.	Yes.	Yes.
titanium dioxide	No.	No.	No.	No.	Yes.
2-butoxyethanol	Yes.	No.	No.	Yes.	Yes.
1,2,4-trimethylbenzene	Yes.	No.	No.	Yes.	No.
Hexane, 1,6-diisocyanato-, homopolymer, Me Et ketone oxime-blocked	Yes.	No.	No.	Yes.	Yes.
butan-1-ol	Yes.	No.	No.	Yes.	No.
trimethylbenzene	Yes.	No.	No.	Yes.	No.
2-methoxy-1-methylethyl acetate	Yes.	No.	No.	No.	No.
dibutyltin dilaurate	No.	No.	No.	Yes.	Yes.
cumene	Yes.	No.	No.	Yes.	Yes.
barium chromate	Yes.	No.	No.	Yes.	Yes.

SARA 313

Supplier notification	Chemical name	CAS number	Concentration
	strontium chromate	7789-08-2	7 - 13
	2-butoxyethanol	111-76-2	5 - 10
	1,2,4-trimethylbenzene	95-63-6	5 - 10
	butan-1-ol	71-36-3	1 - 5
	barium chromate	10294-40-3	0.1 - 1

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

California Prop. 65

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

Section 16. Other information**Hazardous Material Information System (U.S.A.)**

Health : 3 * Flammability : 2 Physical hazards : 0

(*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6886.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)

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Product code BP1Y100B

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Product name UNIVERSAL URETHANE YELLOW PRIMER

Section 16. Other information

Health : 3 Flammability : 2 Instability : 0

Date of previous issue : 6/5/2015

Organization that prepared the MSDS : EHS

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL 73/78 = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

✓ Indicates information that has changed from previously issued version.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.

United States Page: 17/17

Thonie, Kimberly

From: Lowe, Marc
Sent: Tuesday, December 01, 2015 9:06 AM
To: Joann Black; Jennifer Sanderson; John Blomberg; James Ely; Jeff Murphy; Keith McCoy
Cc: Poppaw, Cody; Casey, Thomas J.(Springdale)
Subject: RE: Claim against Prime for truck fire - CAP00709220 / 1335454

Hi, Joann –

Here is the claim form with four supporting documents (three Inter-facility sales invoices and the bill-of-lading document). Please confirm whether this will be sufficient, and let me know if you need any other information.

Thanks.

    
PrimeClaim_PRO... 11-94612.pdf 11-88124.pdf 11-94609.pdf 0811865356.pdf

Marc W. Lowe
Logistics Manager II, Industrial Coatings USCA | PPG Industries, Inc. | (412) 434-1791 | mwlowe@ppg.com

From: Joann Black [<mailto:JBlack@primeinc.com>]
Sent: Monday, November 30, 2015 4:26 PM
To: Lowe, Marc; Jennifer Sanderson; John Blomberg; James Ely; Jeff Murphy; Keith McCoy
Cc: Poppaw, Cody; Casey, Thomas J.(Springdale)
Subject: RE: Claim against Prime for truck fire - CAP00709220 / 1335454

Claim form attached.

<<C:\Users\CAR2463\Documents\Files\Logistics\Incidents\TruckFireHammettIdaho\VLClaimFilePDF.pdf>>

From: Lowe, Marc [<mailto:mwlowe@ppg.com>]
Sent: Monday, November 30, 2015 1:47 PM
To: Joann Black; Jennifer Sanderson; John Blomberg; James Ely; Jeff Murphy; Keith McCoy
Cc: Poppaw, Cody; Casey, Thomas J.(Springdale)
Subject: RE: Claim against Prime for truck fire - CAP00709220 / 1335454

Please do – thanks.

From: Joann Black [<mailto:JBlack@primeinc.com>]
Sent: Monday, November 30, 2015 1:11 PM
To: Lowe, Marc; Jennifer Sanderson; John Blomberg; James Ely; Jeff Murphy; Keith McCoy
Cc: Poppaw, Cody; Casey, Thomas J.(Springdale)
Subject: RE: Claim against Prime for truck fire - CAP00709220 / 1335454

You need to file a formal claim. Will need a copy of an invoice showing the value of the product. I can send you a generic blank claim form if you don't have one of your own.

From: Lowe, Marc [<mailto:mwlowe@ppg.com>]
Sent: Monday, November 30, 2015 1:01 PM

To: Joann Black; Jennifer Sanderson; John Blomberg; James Ely; Jeff Murphy; Keith McCoy
Cc: Poppaw, Cody; Casey, Thomas J.(Springdale)
Subject: RE: Claim against Prime for truck fire - CAP00709220 / 1335454

Prime team –

What is the status of this claim? Has it been received into Prime for processing. Please advise. Thanks.

Marc

From: Lowe, Marc
Sent: Tuesday, November 17, 2015 7:49 AM
To: Joann Black
Cc: Poppaw, Cody; Casey, Thomas J.(Springdale); Jennifer Sanderson; John Blomberg; James Ely; Jeff Murphy; Keith McCoy
Subject: Claim against Prime for truck fire - CAP00709220 / 1335454

Hi, Joann –

I do not believe PPG has formally submitted a claim, but we need to do so for this truck fire.

Here is the detail of what PPG is requesting...

Goods	\$53,776.64
Pallets	\$237.50
Labor allowance for reloading	<u>\$88.00</u>
GRAND TOTAL	\$54,102.14

Please let me know what information you need from me or whether there is a specific process we need to follow. Thanks.

Marc W. Lowe
Logistics Manager II, Industrial Coatings USCA | PPG Industries, Inc. | (412) 434-1791 | mwlows@ppg.com

From: Joann Black [<mailto:JBlack@primeinc.com>]
Sent: Wednesday, September 30, 2015 3:01 PM
To: Lowe, Marc; Jennifer Sanderson; Casey, Thomas J.(Springdale); Poppaw, Cody; Schilling, Lucas; John Blomberg; James Ely; Jeff Murphy; Keith McCoy
Cc: McDonald, Beth A.; Donnelly, Dave
Subject: RE: CAP00709220 prime 1335454

Ok, please forward exact cost when you have it.

From: Lowe, Marc [<mailto:mwlows@ppg.com>]
Sent: Wednesday, September 30, 2015 2:47 PM
To: Joann Black; Jennifer Sanderson; Casey, Thomas J.(Springdale); Poppaw, Cody; Schilling, Lucas; John Blomberg; James Ely; Jeff Murphy; Keith McCoy
Cc: McDonald, Beth A.; Donnelly, Dave
Subject: RE: CAP00709220 prime 1335454

It means that because the materials were a total loss, we will have to load a truck with materials a second time. The cost of labor to do that from our shipping facility is NOT a component of the standard variable cost for the materials that were lost in the fire. Therefore, PPG needs to recoup the cost of labor for ONE of those loading events.

This is a typical component of a PPG freight claim.

Marc

From: Joann Black [mailto:JBlack@primeinc.com]
Sent: Wednesday, September 30, 2015 2:39 PM
To: Lowe, Marc; Jennifer Sanderson; Casey, Thomas J.(Springdale); Poppaw, Cody; Schilling, Lucas; John Blomberg; James Ely; Jeff Murphy; Keith McCoy
Cc: McDonald, Beth A.; Donnelly, Dave
Subject: RE: CAP00709220 prime 1335454

What is the labor allowance for reloading mean?

From: Lowe, Marc [mailto:mwlowe@ppg.com]
Sent: Wednesday, September 30, 2015 2:38 PM
To: Joann Black; Jennifer Sanderson; Casey, Thomas J.(Springdale); Poppaw, Cody; Schilling, Lucas; John Blomberg; James Ely; Jeff Murphy; Keith McCoy
Cc: McDonald, Beth A.; Donnelly, Dave
Subject: RE: CAP00709220 prime 1335454

Here is the information I can offer as an ESTIMATE so far. I am still working to get the labor allowance component...

Goods	\$53,776.64
Pallets	\$237.50
Labor allowance for reloading	?????
GRAND TOTAL	??????

-----Original Message-----

From: Joann Black [mailto:JBlack@primeinc.com]
Sent: Wednesday, September 30, 2015 2:20 PM
To: Lowe, Marc; Jennifer Sanderson; Casey, Thomas J.(Springdale); Poppaw, Cody; Schilling, Lucas; John Blomberg; James Ely; Jeff Murphy; Keith McCoy
Cc: McDonald, Beth A.; Donnelly, Dave
Subject: RE: CAP00709220 prime 1335454
Importance: High

Can I please have an estimated value. I need to reserve this today.

-----Original Message-----

From: Lowe, Marc [mailto:mwlowe@ppg.com]
Sent: Tuesday, September 29, 2015 5:05 PM
To: Joann Black; Jennifer Sanderson; Casey, Thomas J.(Springdale); Poppaw, Cody; Schilling, Lucas; John Blomberg; James Ely; Jeff Murphy; Keith McCoy
Cc: McDonald, Beth A.; Donnelly, Dave
Subject: RE: CAP00709220 prime 1335454

Not yet - I am still working on some answers from our shipping plant.

-----Original Message-----

From: Joann Black [mailto:JBlack@primeinc.com]
Sent: Tuesday, September 29, 2015 4:48 PM
To: Jennifer Sanderson; Casey, Thomas J.(Springdale); Poppaw, Cody; Lowe, Marc; Schilling, Lucas; John Blomberg; James Ely; Jeff Murphy; Keith McCoy
Cc: McDonald, Beth A.; Donnelly, Dave
Subject: RE: CAP00709220 prime 1335454
Importance: High

Do you have the load value yet?

-----Original Message-----

From: Joann Black
Sent: Monday, September 28, 2015 4:58 PM
To: Jennifer Sanderson; 'Casey, Thomas J. (Springdale)'; Poppaw, Cody; Lowe, Marc; Schilling, Lucas; John Blomberg; James Ely; Jeff Murphy; Keith McCoy
Cc: DEPT SAFETY; McDonald, Beth A.; Donnelly, Dave; Erika Duckworth
Subject: RE: CAP00709220 prime 1335454

Removed cargo group. This is my region.

-----Original Message-----

From: Jennifer Sanderson
Sent: Monday, September 28, 2015 4:16 PM
To: 'Casey, Thomas J. (Springdale)'; Poppaw, Cody; Lowe, Marc; Schilling, Lucas; John Blomberg; James Ely; Jeff Murphy; Keith McCoy
Cc: DEPT SAFETY; McDonald, Beth A.; Donnelly, Dave; Cargo Claims; Erika Duckworth
Subject: RE: CAP00709220 prime 1335454

Adding claims

-----Original Message-----

From: Casey, Thomas J. (Springdale) [mailto:tjcasey@ppg.com]
Sent: Monday, September 28, 2015 1:23 PM
To: Jennifer Sanderson; Poppaw, Cody; Lowe, Marc; Schilling, Lucas; John Blomberg; James Ely; Jeff Murphy; Keith McCoy
Cc: DEPT SAFETY; McDonald, Beth A.; Donnelly, Dave
Subject: RE: CAP00709220 prime 1335454

Jennifer,

Sorry to her that but thanks for the update, hope the driver is OK?

We will start putting the numbers together for the claim who should we work with on your team? Marc Lowe will take the lead for PPG.

Regards,

Thomas J. Casey
Mgr, North American Logistics
Industrial Business Segment

PPG Industries, Inc
One PPG Place
Pittsburgh, PA, USA, 53272
Tel: 412-434-3470
Mobile: 412-427-4395
E-Mail: tjcasey@ppg.com
Web: www.ppg.com
Optionalwebsite.ppg.com

-----Original Message-----

From: Jennifer Sanderson [mailto:JSanderson@primeinc.com]
Sent: Monday, September 28, 2015 2:07 PM
To: Poppaw, Cody; Lowe, Marc; Schilling, Lucas; John Blomberg; James Ely; Jeff Murphy; Keith McCoy
Cc: DEPT SAFETY; McDonald, Beth A.; Casey, Thomas J. (Springdale)
Subject: RE: CAP00709220 prime 1335454

The trailer was fully engulfed by flames. It is a complete loss.

-----Original Message-----

From: Poppaw, Cody [mailto:cpoppaw@ppg.com]
Sent: Monday, September 28, 2015 12:43 PM
To: Lowe, Marc; Jennifer Sanderson; Schilling, Lucas; John Blomberg; James Ely; Jeff Murphy; Keith McCoy
Cc: DEPT SAFETY; McDonald, Beth A.; Casey, Thomas J. (Springdale)
Subject: RE: CAP00709220 prime 1335454

I did not.

Keith??

-----Original Message-----

From: Lowe, Marc
Sent: Monday, September 28, 2015 1:42 PM
To: Poppaw, Cody; Jennifer Sanderson; Schilling, Lucas; John Blomberg; James Ely; Jeff Murphy
Cc: DEPT SAFETY; McDonald, Beth A.; Casey, Thomas J. (Springdale)
Subject: RE: CAP00709220 prime 1335454

Hi, Cody -

Did you hear back? The business is anxious to know whether the material is a loss or is salvageable.

Please advise. Thanks.

Marc

-----Original Message-----

From: Poppaw, Cody
Sent: Monday, September 28, 2015 8:05 AM
To: Jennifer Sanderson; Schilling, Lucas; John Blomberg; James Ely; Jeff Murphy
Cc: DEPT SAFETY; McDonald, Beth A.; Casey, Thomas J. (Springdale); Lowe, Marc
Subject: RE: CAP00709220 prime 1335454

Any update on this?

-----Original Message-----

From: Jennifer Sanderson [mailto:JSanderson@primeinc.com]
Sent: Sunday, September 27, 2015 8:59 AM
To: Schilling, Lucas; John Blomberg; James Ely; Jeff Murphy; Poppaw, Cody
Cc: DEPT SAFETY
Subject: RE: CAP00709220 prime 1335454

This shipped out of the PPG plant in Springdale on 9/24.

Due to deliver into Portland on 9/28.

Thank You!

Jennifer Sanderson
Reefer Sales Coordinator
MI/Northern OH/Western PA
Prime Inc.
800-848-4560

-----Original Message-----

From: Poppaw, Cody [mailto:cpoppaw@ppg.com]
Sent: Sunday, September 27, 2015 6:41 AM
To: Gary Broderick
Cc: Rebecca Stover; Schilling, Lucas; Steve Field; James Ely; Bron C. Beck; Paul Novakowski; Katie Johnson; Paul Miller; John Blomberg; DEPT SAFETY; Jeff Murphy
Subject: Re: CAP00709220 prime 1335454

Can you provide origin and destination?

Sent from my iPhone

On Sep 27, 2015, at 05:31, Gary Broderick
<GBroderick@primeinc.commailto:GBroderick@primeinc.com> wrote:

Last report is tractor was separated from trailer , hwy patrol says trailer is fully engulfed, waiting for updating reports on needed cleanup , this is unl263 paint load.

Adding safety , Sunday supervisor , fleet manager OPS mgr.'s

Drivers are fine uninjured

From: Rebecca Stover
Sent: Sunday, September 27, 2015 3:52 AM
To: cpoppaw@ppg.commailto:cpoppaw@ppg.com; 'l.schilling@ppg.commailto:l.schilling@ppg.com'
Cc: Paul Novakowski; Katie Johnson; Paul Miller; Gary Broderick
Subject: CAP00709220 prime 1335454

Truck and trailer both on fire. Location is Hammett, ID. Will update further as more information becomes available. Thank you. Gary-can you loop everyone else in?

Rebecca Stover
Night Sales Coordinator
[Description: Description: prime-inc-logo]
rstover@primeinc.commailto:rstover@primeinc.com
800-848-4560
CELL 417-631-3629

<image001.gif>

Standard Form for Presentation of Loss and Damage Claims

(Name of person to whom claim is submitted) (City, town or station) (Address)	(Amount of claim) (City, town or station)	(Carrier's Reference Number)
---------------------------------------------------------------------------------------------	--------------------------------------------------	------------------------------

This claim for \$ 54,102.14 is made against the carrier named above by MARC W. LOWE
 (Amount of claim) (Name of Claimant)

for LOSS in connection with the following described shipments:
 (Loss or damage)

Description of shipment 72 DRUMS AND 2 PAILS OF PAINT ON A FULL TRUCKLOAD

Name and address of shipper PPG INDUSTRIES, INC.; 125 COLFAX ST.; SPRINGDALE, PA 15144

Shipped from SPRINGDALE, PA 15144 : To PORTLAND, OR 97210
 (City, town or station) (City, town or station)

Final destination _____; Routed via _____
 (City, town or station) (City, town or station)

Bill of Lading issued by PPG INDUSTRIES, INC. Co.; Date of Bill of Lading 9/24/2015

Paid Freight Bill (PRO) Number 1335454; Original Car Number and Initial 143320

Name and address of consignee (whom shipped to) BUSHNELL'S WAREHOUSE, 2720 NW 35th AV, PORTLAND, OR 97210

If shipment reconsigned en route, state particulars: _____

DETAILED STATEMENT SHOWING HOW AMOUNT CLAIMED IS DETERMINED

(Number and description of articles, nature and extent of loss or damage, invoice price of articles, amount of claim, etc.)

32 DRUMS (1600 GAL) PAINT, PER INVOICE # 11-98124 (document attached)	\$24,992.00
40 DRUMS (2000 GAL) PAINT, PER INVOICE# 11-94609 (document attached)	\$28,369.80
2 PAILS (10 GAL) PAINT, PER INVOICE# 11-94612 (document attached)	\$414.84
19 PALLETS @ \$12.50 PER PALLET	\$237.50
SPRINGDALE PLANT LABOR ALLOWANCE FOR RELOADING NEW MATERIAL (4hrs @ \$22/hour)	\$88.00

IN ADDITION TO THE INFORMATION GIVEN ABOVE, THE FOLLOWING DOCUMENTS ARE SUBMITTED IN SUPPORT OF THIS CLAIM.

- () 1. Original bill of lading, if not previously surrendered to carrier.
- () 2. Original paid freight (expense) bill.
- (x) 3. Original invoice or certified copy.
- () 4. Other particulars obtainable in proof of loss or damage claimed.

REMARKS: THIS MATERIAL LOSS WAS THE RESULT OF A TRUCK FIRE IN HAMMETT, IDAHO ON 9/27/2015 WHILE EN ROUTE.

The foregoing statement of facts is hereby certified as correct: Marc W Lowe
 (Signature of claimant)



COATINGS
AND
RESINS
GROUP

PPG INDUSTRIES INC.
125 COLFAX ST.
SPRINGDALE
PA 15144

LOC1301
125 COLFAX ST
SPRINGDALE PA 15144
UNITED STATES OF AMERICA

INVOICE

200

1194612
09-25-15

PPG INDUSTRIES LOC1301-COEX
C/O BUSHNELL S WAREHOUSE
2720 NW 35TH AVENUE
PORTLAND OR 97210
UNITED STATES OF AMERICA

PAYMENT REFERENCE NO: 1194612

SAPA STOCK	PREPAID	09-24-15	65356 PRIME INC.	4207500194		
NET 30 DAYS		SPRINGDALE FACTORY		0811-36754-01-01-1		
PRODUCT	PRODUCT INFORMATION		QTY	UNIT PRICE	NET PRICE	EXT. AMT
UC56609	DURANAR EZ LEMON YELLOW	SZ: PAIL	2	10.00 GAL	0.000	414.84
	REL NO : SAPA STOCK					
	LOT NO : 11731					
PALLETS	PALLET CHARGE ITEM	SZ:	1	1.00 CON	0.000	12.50
	REL NO : SAPA STOCK					
PAY AMOUNT \$						427.34

PPG INDUSTRIES INC.
OCINVOICEINQUIRY@PPG.COM
10800 S. 13TH ST.
OAK CREEK, WI 53154
1-800-338-6391

PAGE 1 OF 1

FORM 3003 REV 5/87

COATINGS GROUP

EPA CID Case No. 1003-0101: 0817

P517



COATINGS
AND
RESINS
GROUP

PPG INDUSTRIES INC

125 COLFAX ST.
SPRINGDALE
PA

15144

LOC1301

125 COLFAX STREET
SPRINGDALE PA 15144
UNITED STATES OF AMERICA

INVOICE

200

1188124

09-25-15

PPG INDUSTRIES LOC1301-COEX
C/O BUSHNELL S WAREHOUSE
2720 NW 35TH AVENUE
PORTLAND OR 97210
UNITED STATES OF AMERICA

PAYMENT REFERENCE NO: 1188124

STEELSCAPE STOCK	PREPAID	09-24-15	65356 PRIME INC.	4207500194
NET 30 DAYS	SPRINGDALE FACTORY	0811-30972-01-06-1		
PRODUCT	PRODUCT INFORMATION			
BPIY100B	UNIVER URETHANE YEL PRIMR	SZ: DRUM	32	1,600.00 GAL
	REL NO : STEELSCAPE STOCK			0.000
	LOT NO : 16729			24,992.00
PAY AMOUNT \$				24,992.00

PPG INDUSTRIES INC.
OCINVOICEINQUIRY@PPG.COM
10800 S. 13TH ST.
OAK CREEK, WI 53154
1-800-338-8391

PAGE 1 OF 1

FORM 3501 REV. 5/07

EPA CID Case No. 1003-0101: 0818



COATINGS
AND
RESINS
GROUP

PPG INDUSTRIES INC.
125 COLFAX ST.
SPRINGDALE
PA 15144

LOC1301
125 COLFAX STREET
SPRINGDALE PA 15144
UNITED STATES OF AMERICA

INVOICE

200

1194609

09-25-15

PPG INDUSTRIES LOC1301-COEX
C/O BUSHNELL S WAREHOUSE
2720 NW 35TH AVENUE
PORTLAND OR 97210
UNITED STATES OF AMERICA

PAYMENT REFERENCE NO: 1194609

PREPAID		09-24-15	65356 PRIME INC.	4207500194	
NET 30 DAYS		SPRINGDALE FACTORY		0811-36752-01-03-1	
PRODUCT	PRODUCT INFORMATION		QTY	UNIT PRICE	AMOUNT
137D40	04G115 6431 GRAY BACKER REL NO : STEELSCAPE STOCK LOT NO : 17430	SZ: DRUM	36	1,800.00 GAL	0.000 25,720.20
B123C24	FG CLR PC3200 4 REL NO : STEELSCAPE STOCK LOT NO : 12017	SZ: DRUM	4	200.00 GAL	0.000 2,649.60
PAY AMOUNT \$					28,369.80

PPG INDUSTRIES INC.
OCINVOICEINQUIRY@PPG.COM
10800 S. 13TH ST.
OAK CREEK, WI 53134
1-800-338-8391

PAGE 1 OF 1

FORM 3000 REV 5/87

EPA CID Case No. 1003-0101: 0819

SHIPPER PROVIDED SHORT FORM BILL OF LADING & INTERMODAL CERTIFICATION
Not negotiable - Domestic

All parties hereto and their assignees are familiar with, and agree, that this Bill of Lading is subject to: (1) the contract terms and conditions of the Uniform Freight Bill of Lading as set forth in the National Motor Freight Classification, and (2) the applicable tariff and classification in effect as of the date hereon.
 CONTAINER PACKING CERTIFICATE DECLARATION: It is declared that the packaging of goods into the container/vehicle has been carried out in accordance with the applicable provisions of 49CFR and the IMDG Code.

SHIPPER'S B/L NO. **0811B65356**
 LOAD ID NO. **CAP00709220**

AT **LOC. 0811 SPRINGDALE** , PA 15144 09-24 19

PHONE 724-274-7900

CONSIGNEE TO:

PPG INDUSTRIES LOC1301-CORR

C/O BUSSENELL'S WAREHOUSE

2720 NW 35TH AVENUE

PORTLAND

OREGON

(503) 227-3519

97210-0000

Doc Number: 001344803

CARRIER: PRIME, INC.

CAR/VEHICLE INTL NO.

143320

FROM:



PPG INDUSTRIES, INC.
PPG COATINGS

NOTE: Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.

The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding:

SHIPMENT

REFERENCE NO. 04826 PAGE 01 OF 01

CUSTOMER ORDER NO. AND RELEASE NO

** SEE BELOW **

DELIVERY DATE: 00-00-00

Charge to:

FREIGHT **PREPAID**

IF PREPAID, MAIL FREIGHT BILL AND COPY 2 OF BILL OF LADING TO:

PPG Industries Inc.-Despatch Support
 One PPG Place - 35th Floor Logistics
 PITTSBURGH, PA 15272

Subject to Section 7 of conditions of applicable bill of lading, if this shipment is to be delivered to the consignee without receipt on the consignee, the consignor shall sign the following statement:
 The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.

PPG INDUSTRIES, INC.
 PPG COATINGS

(Signature of consignor)

ORDER/INVOICE NUMBERS: 30972-01-06-01/88124 36752-01-03-01/94609 36754-01-01-01/94612

QUANTITY	DESCRIPTION OF ARTICLES	weight in LBS (Sub. to Carr.)	
		PLACARD	NON
BULK TOTE DRUM PAIL BOX		MATERIAL	PLACARD
32	NO UN1263 PAINT 3 PGIII (NO: strontium chromate)	17,683	
36	UN1263 PAINT 3 PGIII	19,943	
2	UN1263 PAINT 3 PGII	106	
4	PAINT - NOT REGULATED		1,904
TOTAL PIECES: 74		WEIGHT BY COLUMN: 37,734	1,904
NUMBER OF PALLETS: 19	WEIGHT: 1105 LBS		
TOTAL WEIGHT OF SHIPMENT: 40,743 LBS			

 MULTIPLE PO NUMBERS: STEELSCAPE STOCK SAPA STOCK

Receiving Location : Receiving Hours : 8AM-12M

SPECIAL INSTRUCTIONS: 72 DRUMS ON 18 PALLETS & 2 PAILS ON A PALLET
 TIME-CRITICAL SHIPMENT! CARRIER MUST CALL 24 HOURS IN ADVANCE FOR DELIVERY APPT IF MORE THAN 5 PALLETS
 503-227-3519.
 IF REQUIRED, DELIVERY APPT MUST BE MADE FOR DAY OF EXPECTED ARRIVAL OR NEXT DATE AT THE LATEST.

OFFER 4 Flammable Liquid - Class 3 PLACARDS

Title to certify that the above-named materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

PPG INDUSTRIES, INC.

PPG COATINGS Shipper,

Permanent post-office address of shipper, 125 COLFAX ST.

, SPRINGDALE

RECEIVED IN APPARENT GOOD ORDER-EXCEPTIONS NOTED.

Carrier,

DRIVER'S SIGNATURE INDICATES APPLICABLE D.O.T. PLACARDS WERE OFFERED, EMERGENCY RESPONSE INFORMATION IS IN THE VEHICLE AND IMMEDIATELY ACCESSIBLE, AND PACKAGES ARE BLOCKED AND BRACED IN ACCORDANCE WITH 49 CFR SECTION 177.834

FishBOL, v10.1.0

EPA CID Case No. 1003-0101: 0820

P520

Thonie, Kimberly

From: Lowe, Marc
Sent: Tuesday, February 02, 2016 2:55 PM
To: Faeth, Steve
Cc: Brown, Robert W. (LAW)
Subject: RE: Prime Truck fire - September 2015

Hi, Steve –

Per our conversation, here are all of the PPG people that would have been involved in some form or fashion with the Prime truck fire in Idaho on 9/27/2015, or the follow-up communications...

- Cody Poppaw
- Tom Casey
- Lucas Schilling
- Bill Gallagher
- Pete Breski
- Patty Sawyer
- Beth McDonald
- Donnelly
- Bob Brown
- Bill Guiser
- Steve Minick

These people would have been courtesy copied on some of the communications regarding the shipment delay...

- Tom R. Jones (Springdale)
- Julia Brand
- Jan Shingledecker
- Lisa Malek
- Paul Petted
- Patty Snyder
- Steven Beighley
- Albert Vidra
- Sharon Dorbritz
- Vincent Wiskemann
- Dominic DeCubellis
- Phil Chandler

These people would have had some communications only regarding valuation of the loss...

- Michael Dunbar
- Leslie Riley
- Lisa Ruud

Thanks.

Marc

Lowe, Marc

From: Joann Black <JBlack@primeinc.com>
Sent: Friday, December 04, 2015 8:11 AM
To: Lowe, Marc; Jennifer Sanderson; John Blomberg; James Ely; Jeff Murphy; Keith McCoy
Subject: RE: Claim against Prime for truck fire - CAP00709220 / 1335454

Claim was received. Payment will be processed within 30 days.

Thank you,

Joann Black
Cargo Claims Rep - Northeast Region
Prime, Inc.
800-321-1192 X6597
Fax# 570-654-7099
Email: jblack@primeinc.com

From: Lowe, Marc [mailto:mwlowe@ppg.com]
Sent: Friday, December 04, 2015 8:09 AM
To: Joann Black; Jennifer Sanderson; John Blomberg; James Ely; Jeff Murphy; Keith McCoy
Subject: RE: Claim against Prime for truck fire - CAP00709220 / 1335454

Prime team --

Please confirm that you have received this, and that the information provided is sufficient.

Also, I need to let our management team know when to expect payment on this claim. Thank you.

Marc

From: Lowe, Marc
Sent: Tuesday, December 01, 2015 9:06 AM
To: Joann Black; Jennifer Sanderson; John Blomberg; James Ely; Jeff Murphy; Keith McCoy
Cc: Poppaw, Cody; Casey, Thomas J.(Springdale)
Subject: RE: Claim against Prime for truck fire - CAP00709220 / 1335454

Hi, Joann --

Here is the claim form with four supporting documents (three inter-facility sales invoices and the bill-of-lading document). Please confirm whether this will be sufficient, and let me know if you need any other information.

Thanks.

<< File: PrimeClaim_PRO_1335454.pdf>> << File: 11-94612.pdf>> << File: 11-88124.pdf>> << File: 11-94609.pdf>> << File: 0811B65356.pdf>>

Marc W. Lowe
Logistics Manager II, Industrial Coatings USCA | PPG Industries, Inc. | (412) 434-1791 | mwlowe@ppg.com

EPA CID Case No. 1003-0101: 0479

P179

From: Joann Black [mailto:JBlack@primeinc.com]
Sent: Monday, November 30, 2015 4:26 PM
To: Lowe, Marc; Jennifer Sanderson; John Blomberg; James Ely; Jeff Murphy; Keith McCoy
Cc: Poppaw, Cody; Casey, Thomas J.(Springdale)
Subject: RE: Claim against Prime for truck fire - CAP00709220 / 1335454

Claim form attached.

<<C:\Users\CAR2463\Documents\Files\Logistics\Incidents\TruckFireHemmettIdaho\VLClaimFilePDF.pdf>>

From: Lowe, Marc [mailto:mwlowe@ppg.com]
Sent: Monday, November 30, 2015 1:47 PM
To: Joann Black; Jennifer Sanderson; John Blomberg; James Ely; Jeff Murphy; Keith McCoy
Cc: Poppaw, Cody; Casey, Thomas J.(Springdale)
Subject: RE: Claim against Prime for truck fire - CAP00709220 / 1335454

Please do – thanks.

From: Joann Black [mailto:JBlack@primeinc.com]
Sent: Monday, November 30, 2015 1:11 PM
To: Lowe, Marc; Jennifer Sanderson; John Blomberg; James Ely; Jeff Murphy; Keith McCoy
Cc: Poppaw, Cody; Casey, Thomas J.(Springdale)
Subject: RE: Claim against Prime for truck fire - CAP00709220 / 1335454

You need to file a formal claim. Will need a copy of an invoice showing the value of the product. I can send you a generic blank claim form if you don't have one of your own.

From: Lowe, Marc [mailto:mwlowe@ppg.com]
Sent: Monday, November 30, 2015 1:01 PM
To: Joann Black; Jennifer Sanderson; John Blomberg; James Ely; Jeff Murphy; Keith McCoy
Cc: Poppaw, Cody; Casey, Thomas J.(Springdale)
Subject: RE: Claim against Prime for truck fire - CAP00709220 / 1335454

Prime team –

What is the status of this claim? Has it been received into Prime for processing. Please advise. Thanks.

Marc

From: Lowe, Marc
Sent: Tuesday, November 17, 2015 7:49 AM
To: Joann Black
Cc: Poppaw, Cody; Casey, Thomas J.(Springdale); Jennifer Sanderson; John Blomberg; James Ely; Jeff Murphy; Keith McCoy
Subject: Claim against Prime for truck fire - CAP00709220 / 1335454

Hi, Joann –

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Here is the detail of what PPG is requesting...

Goods	\$53,776.64
Pallets	\$237.50

Labor allowance for reloading	<u>\$88.00</u>
GRAND TOTAL	\$54,102.14

Please let me know what information you need from me or whether there is a specific process we need to follow. Thanks.

Marc W. Lowe

Logistics Manager II, Industrial Coatings USCA | PPG Industries, Inc. | (412) 434-1791 mwlowe@ppg.com

From: Joann Black [<mailto:JBlack@primeinc.com>]

Sent: Wednesday, September 30, 2015 3:01 PM

To: Lowe, Marc; Jennifer Sanderson; Casey, Thomas J.(Springdale); Poppaw, Cody; Schilling, Lucas; John Blomberg; James Ely; Jeff Murphy; Keith McCoy

Cc: McDonald, Beth A.; Donnelly, Dave

Subject: RE: CAP00709220 prime 1335454

Ok, please forward exact cost when you have it.

From: Lowe, Marc [<mailto:mwlowe@ppg.com>]

Sent: Wednesday, September 30, 2015 2:47 PM

To: Joann Black; Jennifer Sanderson; Casey, Thomas J.(Springdale); Poppaw, Cody; Schilling, Lucas; John Blomberg; James Ely; Jeff Murphy; Keith McCoy

Cc: McDonald, Beth A.; Donnelly, Dave

Subject: RE: CAP00709220 prime 1335454

It means that because the materials were a total loss, we will have to load a truck with materials a second time. The cost of labor to do that from our shipping facility is NOT a component of the standard variable cost for the materials that were lost in the fire. Therefore, PPG needs to recoup the cost of labor for ONE of those loading events.

This is a typical component of a PPG freight claim.

Marc

From: Joann Black [<mailto:JBlack@primeinc.com>]

Sent: Wednesday, September 30, 2015 2:39 PM

To: Lowe, Marc; Jennifer Sanderson; Casey, Thomas J.(Springdale); Poppaw, Cody; Schilling, Lucas; John Blomberg; James Ely; Jeff Murphy; Keith McCoy

Cc: McDonald, Beth A.; Donnelly, Dave

Subject: RE: CAP00709220 prime 1335454

What is the labor allowance for reloading mean?

From: Lowe, Marc [<mailto:mwlowe@ppg.com>]

Sent: Wednesday, September 30, 2015 2:38 PM

To: Joann Black; Jennifer Sanderson; Casey, Thomas J.(Springdale); Poppaw, Cody; Schilling, Lucas; John Blomberg; James Ely; Jeff Murphy; Keith McCoy

Cc: McDonald, Beth A.; Donnelly, Dave

Subject: RE: CAP00709220 prime 1335454

Here is the information I can offer as an ESTIMATE so far. I am still working to get the labor allowance component...

Goods	\$53,776.64
Pallets	\$237.50
Labor allowance for reloading	?????

GRAND TOTAL ??????

-----Original Message-----

From: Joann Black [mailto:JBlack@primeinc.com]
Sent: Wednesday, September 30, 2015 2:20 PM
To: Lowe, Marc; Jennifer Sanderson; Casey, Thomas J.(Springdale); Poppaw, Cody; Schilling, Lucas; John Blomberg; James Ely; Jeff Murphy; Keith McCoy
Cc: McDonald, Beth A.; Donnelly, Dave
Subject: RE: CAP00709220 prime 1335454
Importance: High

Can I please have an estimated value. I need to reserve this today.

-----Original Message-----

From: Lowe, Marc [mailto:mwlowe@ppg.com]
Sent: Tuesday, September 29, 2015 5:05 PM
To: Joann Black; Jennifer Sanderson; Casey, Thomas J.(Springdale); Poppaw, Cody; Schilling, Lucas; John Blomberg; James Ely; Jeff Murphy; Keith McCoy
Cc: McDonald, Beth A.; Donnelly, Dave
Subject: RE: CAP00709220 prime 1335454

Not yet - I am still working on some answers from our shipping plant.

-----Original Message-----

From: Joann Black [mailto:JBlack@primeinc.com]
Sent: Tuesday, September 29, 2015 4:48 PM
To: Jennifer Sanderson; Casey, Thomas J.(Springdale); Poppaw, Cody; Lowe, Marc; Schilling, Lucas; John Blomberg; James Ely; Jeff Murphy; Keith McCoy
Cc: McDonald, Beth A.; Donnelly, Dave
Subject: RE: CAP00709220 prime 1335454
Importance: High

Do you have the load value yet?

-----Original Message-----

From: Joann Black
Sent: Monday, September 28, 2015 4:58 PM
To: Jennifer Sanderson; 'Casey, Thomas J.(Springdale)'; Poppaw, Cody; Lowe, Marc; Schilling, Lucas; John Blomberg; James Ely; Jeff Murphy; Keith McCoy
Cc: DEPT SAFETY; McDonald, Beth A.; Donnelly, Dave; Erika Duckworth
Subject: RE: CAP00709220 prime 1335454

Removed cargo group. This is my region.

-----Original Message-----

From: Jennifer Sanderson
Sent: Monday, September 28, 2015 4:16 PM
To: 'Casey, Thomas J.(Springdale)'; Poppaw, Cody; Lowe, Marc; Schilling, Lucas; John Blomberg; James Ely; Jeff Murphy; Keith McCoy
Cc: DEPT SAFETY; McDonald, Beth A.; Donnelly, Dave; Cargo Claims; Erika Duckworth
Subject: RE: CAP00709220 prime 1335454

Adding claims

-----Original Message-----

From: Casey, Thomas J.(Springdale) [mailto:tjcasey@ppg.com]
Sent: Monday, September 28, 2015 1:23 PM
To: Jennifer Sanderson; Poppaw, Cody; Lowe, Marc; Schilling, Lucas; John Blomberg; James Ely; Jeff Murphy; Keith McCoy

Cc: DEPT SAFETY; McDonald, Beth A.; Donnelly, Dave
Subject: RE: CAP00709220 prime 1335454

Jennifer,

Sorry to her that but thanks for the update, hope the driver is OK?

We will start putting the numbers together for the claim who should we work with on your team? Marc Lowe will take the lead for PPG.

Regards,

Thomas J. Casey
Mgr, North American Logistics
Industrial Business Segment

PPG Industries, Inc
One PPG Place
Pittsburgh, PA, USA, 53272
Tel: 412-434-3470
Mobile: 412-427-4395
E-Mail: tjcasey@ppg.com
Web: www.ppg.com
Optionalwebsite.ppg.com

-----Original Message-----

From: Jennifer Sanderson [<mailto:JSanderson@primeinc.com>]
Sent: Monday, September 28, 2015 2:07 PM
To: Poppaw, Cody; Lowe, Marc; Schilling, Lucas; John Blomberg; James Ely; Jeff Murphy; Keith McCoy
Cc: DEPT SAFETY; McDonald, Beth A.; Casey, Thomas J. (Springdale)
Subject: RE: CAP00709220 prime 1335454

The trailer was fully engulfed by flames. It is a complete loss.

-----Original Message-----

From: Poppaw, Cody [<mailto:cpoppaw@ppg.com>]
Sent: Monday, September 28, 2015 12:43 PM
To: Lowe, Marc; Jennifer Sanderson; Schilling, Lucas; John Blomberg; James Ely; Jeff Murphy; Keith McCoy
Cc: DEPT SAFETY; McDonald, Beth A.; Casey, Thomas J. (Springdale)
Subject: RE: CAP00709220 prime 1335454

I did not.

Keith??

-----Original Message-----

From: Lowe, Marc
Sent: Monday, September 28, 2015 1:42 PM
To: Poppaw, Cody; Jennifer Sanderson; Schilling, Lucas; John Blomberg; James Ely; Jeff Murphy

Cc: DEPT SAFETY; McDonald, Beth A.; Casey, Thomas J.(Springdale)
Subject: RE: CAP00709220 prime 1335454

Hi, Cody -

Did you hear back? The business is anxious to know whether the material is a loss or is salvageable.

Please advise. Thanks.

Marc

-----Original Message-----

From: Poppaw, Cody
Sent: Monday, September 28, 2015 8:05 AM
To: Jennifer Sanderson; Schilling, Lucas; John Blomberg; James Ely; Jeff Murphy
Cc: DEPT SAFETY; McDonald, Beth A.; Casey, Thomas J.(Springdale); Lowe, Marc
Subject: RE: CAP00709220 prime 1335454

Any update on this?

-----Original Message-----

From: Jennifer Sanderson [mailto:JSanderson@primeinc.com]
Sent: Sunday, September 27, 2015 8:59 AM
To: Schilling, Lucas; John Blomberg; James Ely; Jeff Murphy; Poppaw, Cody
Cc: DEPT SAFETY
Subject: RE: CAP00709220 prime 1335454

This shipped out of the PPG plant in Springdale on 9/24.

Due to deliver into Portland on 9/28.

Thank You!

Jennifer Sanderson
Reefer Sales Coordinator
MI/Northern OH/Western PA
Prime Inc.
800-848-4560

-----Original Message-----

From: Poppaw, Cody [mailto:cpoppaw@ppg.com]
Sent: Sunday, September 27, 2015 6:41 AM
To: Gary Broderick
Cc: Rebecca Stover; Schilling, Lucas; Steve Field; James Ely; Bron C. Beck; Paul Novakowski; Katie Johnson; Paul Miller; John Blomberg; DEPT SAFETY; Jeff Murphy
Subject: Re: CAP00709220 prime 1335454

Can you provide origin and destination?

Sent from my iPhone

On Sep 27, 2015, at 05:31, Gary Broderick
<GBroderick@primeinc.com<mailto:GBroderick@primeinc.com>> wrote:

Last report is tractor was separated from trailer , hwy patrol says trailer is fully engulfed, waiting for updating reports on needed cleanup , this is unl263 paint load.

Adding safety , Sunday supervisor , fleet manager OPS mgr.'s

Drivers are fine uninjured

From: Rebecca Stover

Sent: Sunday, September 27, 2015 3:52 AM

To: cpoppaw@ppg.com<<mailto:cpoppaw@ppg.com>>;

'l.schilling@ppg.com<<mailto:l.schilling@ppg.com>>'

Cc: Paul Novakowski; Katie Johnson; Paul Miller; Gary Broderick

Subject: CAP00709220 prime 1335454

Truck and trailer both on fire. Location is Hammett, ID. Will update further as more information becomes available. Thank you. Gary-can you loop everyone else in?

Rebecca Stover

Night Sales Coordinator

[Description: Description: prime-inc-logo]

rstover@primeinc.com<<mailto:rstover@primeinc.com>>

800-848-4560

CELL 417-631-3629

<image001.gif>

Standard Form for Presentation of Loss and Damage Claims

(Name of person to whom claim is submitted)	(Address of claimant)	(Claimant's Reference Number)
(Name of Carrier)	(Date)	
(Address)		

This claim for \$ _____ is made against the carrier named above by _____
(Amount of claim) (Name of Claimant)

for _____ in connection with the following described shipments:
(Loss or damage)

Description of shipment _____

Name and address of shipper _____

Shipped from _____; To _____
(City, town or station) (City, town or station)

Final destination _____; Routed via _____
(City, town or station) (City, town or station)

Bill of Lading issued by _____ Co.; Date of Bill of Lading _____

Paid Freight Bill (PRO) Number _____; Original Car Number and Initial _____

Name and address of consignee (whom shipped to) _____

If shipment reconsigned en route, state particulars: _____

DETAILED STATEMENT SHOWING HOW AMOUNT CLAIMED IS DETERMINED

(Number and description of articles, nature and extent of loss or damage, invoice price of articles, amount of claim, etc.)

IN ADDITION TO THE INFORMATION GIVEN ABOVE, THE FOLLOWING DOCUMENTS ARE SUBMITTED IN SUPPORT OF THIS CLAIM.

- () 1. Original bill of lading, if not previously surrendered to carrier.
- () 2. Original paid freight (expense) bill.
- () 3. Original invoice or certified copy.
- () 4. Other particulars obtainable in proof of loss or damage claimed.

REMARKS: _____

The foregoing statement of facts is hereby certified as correct: _____
(Signature of claimant)

<VL Claim File PDF.pdf>

EPA CID Case No. 1003-0101: 0486

**SHIPPER PROVIDED SHORT FORM BILL OF LADING &
INTERMODAL CERTIFICATION**
Not negotiable - Domestic

All parties hereto and their assigns are familiar with, and agree, that this bill of lading is subject to: (1) the contract terms and conditions of the Uniform Domestic Freight Bill of Lading as set forth in the National Motor Freight Classification, and (2) the applicable tariff and rates and classifications in effect as of the date hereon.

CONTAINER TACKLING CERTIFICATE DECLARATION: It is declared that the packaging of goods into the container/vehicle has been carried out in accordance with the applicable provisions of 49CFR and the IBC Code.

SHIPPER'S B/L NO. 0811B65356

AT LOAD ID NO. CAP00709220
LOC. 0811 SPRINGDALE, PA 15144 09-24 15

PHONE 724-274-7900

FROM:



PPG INDUSTRIES, INC.
PPG COATINGS

NOTE: Where the rate is dependent on value, shippers are required to state specifically in writing the agreed or declared value of the property.
The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding:

SHIPMENT
REFERENCE NO. 54826 PAGE 01 OF 01

CUSTOMER ORDER NO. AND RELEASE NO ** SEE BELOW **

CONSIGNEE TO:

PPG INDUSTRIES LOC1901-COEX

C/O BUSHNELL'S WAREHOUSE
2720 NW 35TH AVENUE
PORTLAND
OREGON 97210-0000
(503) 227-3519

Dun Number: 001344903

DELIVERY DATE: 00-00-00

Charge to:

FREIGHT PREPAID
IF PREPAID, MAIL FREIGHT BILL AND COPY 2 OF BILL-OF-LADING TO:
PPG Industries Inc.-Decorative Support
One PPG Place - 35th Floor Logistics
PITTSBURGH, PA 15272

Subject to Section 7 of conditions of applicability of this bill of lading, if this shipment is to be delivered to the consignee without recourse on the shipper, the shipper shall sign the following statement:
The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.
PPG INDUSTRIES, INC.
PPG COATINGS

CARRIER: PRIME, INC.

CAR/VEHICLE INTL NO. 143320

(Signature of consignor)

ORDER/INVOICE NUMBERS: 30972-01-06-01/56124 36752-01-03-01/94609 36754-01-01-01/94612

QUANTITY	DESCRIPTION OF ARTICLES	weight in LBS (Sub. to Cons.)	
		PLACARD MATERIAL	NON PLACARD
32	BQ UN1263 PAINT 3 PGII (BQ: strontium chromate)	17,683	
36	UN1263 PAINT 3 PGII	19,945	
2	UN1263 PAINT 3 PGII	106	
4	PAINT - NOT REGULATED		1,904
TOTAL PIECES: 74		WRIGHT BY COLUMN: 37,734	1,904
NUMBER OF PALLETS: 19	WEIGHT: 1105 LBS		
	TOTAL WEIGHT OF SHIPMENT: 40,743 LBS		

MULTIPLE PO NUMBERS: STRESCAPE STOCK RAPA STOCK

Receiving Location : Receiving Hours 8AM-1PM

SPECIAL INSTRUCTIONS: 72 DRUMS ON 18 PALLETS & 2 PALLETS ON A PALLET
TIME-CRITICAL SHIPMENT! CARRIER MUST CALL 24 HOURS IN ADVANCE FOR DELIVERY APPT IF MORE THAN 5 PALLETS
503-227-3519.
IF REQUIRED, DELIVERY APPT MUST BE MADE FOR DAY OF EXPECTED ARRIVAL OR NEXT DATE AT THE LATEST.

OFFER 4 Flammable Liquid - Class 3 PLACARDS

This is to certify that the abovesaid materials are properly classified, described, packaged, marked, and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

PPG INDUSTRIES, INC.

PPG COATINGS Shipper,

Permanent post-office address of shipper, 125 COLFAX ST.

FOR HELP IN EMERGENCIES INVOLVING SPILL, FIRE, LEAK, EXPOSURE
- CALL CHEMTREC -
Call Toll Free 1-800-424-9300 or Call Collect 1-703-527-3897

RECEIVED IN APPARENT GOOD
ORDER-EXCEPTIONS NOTED.

Carrier,

DRIVER'S SIGNATURE INDICATES APPLICABLE D.O.T. PLACARDS WERE OFFERED. EMERGENCY RESPONSE INFORMATION IS IN THE VEHICLE AND IMMEDIATELY ACCESSIBLE. AND PACKAGES ARE BLOCKED AND BRANDED IN ACCORDANCE WITH 49 CFR SECTION 177.804

FetchBOL, ver. 1.0

20811B65356-157
EPA ID Case No. 804-0001: 0487

Standard Form for Presentation of Loss and Damage Claims

(Name of person to whom claim is submitted) _____ (Address of claimant) _____ (Telephone Reference Number) _____

(Name of Carrier) _____ (Date) _____

(Address) _____

This claim for \$54,102.14 is made against the carrier named above by MARC W. LOWE
(Amount of claim) (Name of Claimant)

for LOSS in connection with the following described shipments:
(Loss or damage)

Description of shipment: 72 DRUMS AND 2 PAIS OF PAINT ON A FULL TRUCKLOAD

Name and address of shipper PPG INDUSTRIES, INC., 125 COLFAX ST., SPRINGDALE, PA 15144

Shipped from SPRINGDALE, PA 15144 : To PORTLAND, OR 97210
(City, town or station) (City, town or station)

Final destination _____ : Routed via _____
(City, town or station) (City, town or station)

Bill of Lading issued by PPG INDUSTRIES, INC. Co.; Date of Bill of Lading 7/24/2015

Paid Freight Bill (PRO) Number 1335454 : Original Cer Number and Initial 143320

Name and address of consignee (whom shipped to) BUSHNELL'S WAREHOUSE, 2720 NW 35TH AV. PORTLAND, OR 97210

If shipment reconsigned en route, state particulars: _____

DETAILED STATEMENT SHOWING HOW AMOUNT CLAIMED IS DETERMINED

(Number and description of articles, nature and extent of loss or damage, invoice price of articles, amount of claim, etc)

32 DRUMS (1600 GAL) PAINT, PER INVOICE # 11-84124 (document attached)	\$24,992.00
40 DRUMS (2000 GAL) PAINT, PER INVOICE # 11-94609 (document attached)	\$28,369.80
2 PAILS (10 GAL) PAINT, PER INVOICE # 11-94612 (document attached)	\$414.84
17 PALLETS @ \$12.50 PER PALLET	\$237.50
SPRINGDALE PLANT LABOR ALLOWANCE FOR RELOADING NEW MATERIAL (4 hrs @ \$22/hr)	\$88.00

**IN ADDITION TO THE INFORMATION GIVEN ABOVE, THE FOLLOWING DOCUMENTS
ARE SUBMITTED IN SUPPORT OF THIS CLAIM.**

- () 1. Original bill of lading, if not previously surrendered to carrier.
() 2. Original paid freight (expense) bill.
() 3. Original invoice or certified copy.
() 4. Other particulars obtainable in proof of loss or damage claimed.

REMARKS: THIS MATERIAL LOSS WAS THE RESULT OF A TRUCK FIRE IN
HAMMETT, IDAHO ON 9/27/2015 WHILE EN ROUTE.

The foregoing statement of facts is hereby certified as correct:

(Signature of claimant)

<Prime Claim - PRO-1335454.pdf>
EPA CID Case No. 1003-0101: 0488

EPA CID Case No. 1003-0101: 0488

**U.S. Environmental Protection Agency
Office of Enforcement and Compliance Assurance
Office of Criminal Enforcement, Forensics, and Training**

**National Enforcement Investigations Center
Denver, Colorado**

OPERATING PROCEDURE

Title: Container Sampling

Effective Date: April 27, 2010

Number: NEICPROC/00-048R1

Author

Name: Kenna R. Yarbrough
Title: QA Manager, Field Branch

Signature: *Kenna R. Yarbrough*

Date: *April 20, 2010*

Approvals

Name: Elizabeth A. Mishalanie
Title: QA Manager, Laboratory Branch

Signature: *Elizabeth A. Mishalanie*

Date: *April 21, 2010*

Name: Craig Kubik
Title: Chief, Field Branch

Signature: *Craig Kubik*

Date: *4/21/10*

Revision History

This table shows changes to this controlled document over time. The most recent version is presented in the top row of the table. Previous versions of the document are maintained by the NEIC Document Control Coordinator.

History	Effective Date
<p>NEICPROC/00-048R1, <i>Container Sampling</i>, replaces NEICPROC/00-048</p> <p>Reformatted to current NEIC standard, updated names/titles on front page, updated references, changed project leader to project manager, and corrected hand written edits. Made small editorial changes. Allowed for the use of electronic notes, if applicable, in place of logbook entry.</p> <p>Section 1.5.2 – Added <i>Waste Management and Competency and Proficiency Testing for NEIC Field Personnel</i> operating procedures</p> <p>Section 2.2.1 – Added information on competency testing</p> <p>Section 2.2.2 – Added logbooks and marking pens to equipment list</p> <p>Section 2.2.3 - Added information on grounding drums prior to sampling</p> <p>Section 2.2.4 – Discussed possible need for over-packing drums prior to sampling</p> <p>Section 2.2.5.2 – Added ability to sample quadrants in addition to random sampling of semisolids</p> <p>Section 2.2.5.3 - Added information on pouring samples directly from grain thieves into sample jars and added “shovel” to “scoop” and changed “should” to “will” for making every particle size and type available for sampling</p> <p>Section 2.3 – Changed “should” to “will” for collecting quality control samples and added “as described in.....and/or the site-specific project plan.”</p> <p>Section 2.4 - Added one sentence concerning use of drum logbooks to document drum information</p>	April 27, 2010
<p>NEICPROC/00-048, <i>Container Sampling</i>, Replaces “<i>Sampling of Unidentified Hazardous Waste Material from Closed Containers</i>,” procedure (undated); archived on April 16, 1999</p>	February 28, 2000

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1 General Information

1.1 Purpose

The purpose of this procedure is to assist field personnel in safely collecting samples of waste and other materials from containers.

1.2 Scope/Application

The approaches in this procedure describe how to obtain samples from containers for the purpose of determining the specific hazardous potential, regulatory status, and/or chemical composition of the material. This procedure details sampling methods and equipment needs that accommodate the various physical states in which waste material may be encountered (liquid, semisolid, solid, etc.).

In instances where the prescribed container sampling procedures are not possible or are inadequate, NEIC personnel may use an alternate procedure. The individual must document the procedure used in the bound field logbook.¹

This procedure contains direction developed solely to provide internal guidance to NEIC employees. The procedure set forth does not create any rights, substantive or procedural, enforceable at law by a party to litigation with the U.S. Environmental Protection Agency or the United States.

1.3 Associated NEIC Documents (current versions)

1.3.1 *Field Safety and Health* operating procedure, NEICPROC/00-034

1.3.2 *Field Quality Control Samples* operating procedure, NEICPROC/99-010

1.3.3 *Waste Management* operating procedure, NEICPROC/00-076

1.3.4 *Competency and Proficiency Testing for NEIC Field Personnel* operating procedure, NEICPROC/00-019

1.4 References

1.4.1 Test Methods for the Evaluation of Solid Waste, Volume 2: Field Manual (SW-846)

1.4.2 Samplers and Sampling Procedures for Hazardous Waste Streams, EPA-600/2-80-018, January 1980

1.4.3 Field Branches Quality System and Technical Procedures, Procedures Collection, <http://www.epa.gov/region4/sesd/fbqstp/index.html>, U.S. EPA, Region 4 Science and Ecosystem Support Division, Athens, Georgia

1.4.4 ASTM Method D 1452 – 65, Standard Practice Method for Soil Investigation and Sampling by Auger Borings

¹ An equivalent electronic type record, such as an electronic notebook, may be substituted as appropriate for a bound field logbook when a logbook is required throughout this procedure.

- 1.4.5 ASTM Standard D 420 – 69, Standard Recommended Practice for Investigating and Sampling Soil and Rock for Engineering Purposes
- 1.4.6 ASTM D 1586, Standard Test Method for Penetration Test and Split-Barrel Sampling of Soils
- 1.4.7 ASTM D 1587, Standard Practice for Thin-Walled Tube Geotechnical Sampling of Soils

1.5 Precautions

1.5.1 Safety

The project manager shall ensure that all field team members are familiar with any pertinent site-specific Health and Safety Plans (HASP). He/she should be aware of the general layout of the site or facility where sampling will commence. If there is any doubt about the safety of an operation, work shall be suspended and reevaluated before continuing. Containers may be under positive or negative pressure and/or may contain reactive, explosive, biological, radioactive, flammable, or other dangerous materials. Containers must be opened in such a manner that excess interior pressure, if present, will be safely relieved. All persons not actually involved in opening and sampling the containers must be kept a safe distance from the containers. It may be necessary to ground the metal containers. Nonsparking equipment will be used for container opening. If conditions warrant, containers may be moved to a safe area for sampling. When using this procedure, minimize exposure to potential health hazards through the use of protective clothing, eyewear, and gloves.

1.5.2 Contamination Control/Waste Management

A separate area should be designated for contamination control if decontaminating equipment onsite is required. Label items which are to be transported to NEIC for further decontamination or disposal. The NEIC *Field Safety and Health and Waste Management* operating procedures must be followed.

Sample management or handling shall be designed to generate minimum waste, when possible. Care shall be taken while sampling to not spill or drip the waste contents onto the container or surrounding area. Typically, sampling waste is bagged, tagged as contaminated, and transported to NEIC where it is delivered to the NEIC Waste Control Officer (WCO) for disposal.

1.5.3 Specific Precautions

All sampling instruments must be clean and inert to the samples being taken, when at all possible. If sampling to detect the presence of low level organics, use Teflon[®], glass, or other compatible/inert sampling equipment. The contaminant of interest must never be introduced by the sampling equipment. If sampling equipment is reused onsite, it will be properly decontaminated. Equipment blank samples should be collected to assure that the equipment has been properly decontaminated.

2 Methodology

2.1 Summary of Procedure

This procedure describes how to sample liquids, semisolids, and solid materials from containers. The containers that will be sampled using this procedure are primarily 55-gallon drums. Smaller (e.g., 5-gallon, 35-gallon) and larger (e.g., tanks such as electroplating bath tanks, storage sacks) containers, however, may also be sampled by these methods.

2.2 Procedure

2.2.1 Personnel Responsibilities/Training

Field personnel required to collect samples from containers must have a working knowledge of equipment and methods applicable to the matrices commonly encountered in the sampling of containerized materials. Training may include hands-on experience under the direct supervision of proficient staff members, as well as classroom instruction training, when available. After an initial competency evaluation is completed, a periodic proficiency testing shall be conducted.

2.2.2 Equipment Needs

The following are standard equipment and materials that may be needed for container opening and sampling.

- Composite Liquid Waste Samplers (COLIWASAs) and/or glass sampling tubes (thieves), approximately 4 feet long
- Core barrel or tube sampler with inner liners and/or auger kit
- Grain thief samplers
- Stainless steel, plastic, or Teflon®-coated aluminum scoops, spatulas, and shovels
- Glass or plastic containers, with Teflon®-lined or other appropriate lids, for sample bottles
- Sealable plastic bags and/or tamper-evident bags/seals
- Stainless steel, plastic, glass, or Teflon®-lined buckets and pitchers
- Drum opening kit, which includes, but is not limited to, nonsparking bung wrenches, chisels, and hammer
- Monitoring/screening instruments
- Grounding devices
- Plastic sheeting
- Empty, clean 55-gallon drums with drum tops/lids and ring fasteners and plastic drum liners

- Personal protective equipment
- Field logbooks, including drum logbooks (An equivalent electronic note-taking method may be used for recording observations)
- Grease pens, markers, spray paint, etc. for marking/identifying drums

2.2.3 Container Inspection

Before handling, visually inspect all containers to gain as much information as possible about them. If there is doubt about the safe handling of the containers, they will be opened by remote control instrumentation behind a safety barrier or not at all. All containers within the sampling population should be inventoried and marked on the outside with a unique identifying number.

The type of drum head may indicate the type of material within; open-head drums usually have solid or semisolid materials, and closed-head drums usually contain liquids. If the container is made of, or lined with, polyethylene, highly corrosive chemicals may be present. Highly reactive and/or toxic chemicals are often stored in stainless steel drums, or polyethylene containers, if reactive with metal.

The following information shall be gathered and recorded in the field logbook.

- Drum/container type (e.g., steel, fiber, poly, super-sack, etc.), color, size/dimensions, and condition (e.g., corroded, rusted, dented, leaking contents)
- Writing, stencils, labels, or other identifying markings on the drum (e.g., flammability and/or reactivity labels, manufacturer name/address, product name, hazardous waste labels, and hazards, etc.)
- Evidence that the container is under negative or positive pressure (e.g., bulging inward or outward, hissing sound)
- Open-head or closed-head (if a drum)

Before opening, each metal drum that is not in direct contact with the earth may need to be grounded using grounding wires, alligator clips, and a grounding rod or metal structure. If a metal drum is in an over-pack drum or stored on pallets, the metal drum should be grounded. Touch the nonsparking drum opening tools to the bung or lid, allowing an electrical conductive path to form, and then slowly remove the bung or drum ring and/or lid.

2.2.4 Container Opening

If the container appears to be under positive or negative pressure or there are crystals noted around the container opening(s), then assess the situation to determine if remote opening is necessary. If the containers cannot be accessed for sampling, heavy equipment (e.g., a forklift) may be needed to stage for sampling activities.

Use nonsparking tools to open containers. As the container is being opened, measure the organic vapors that may be present by using a photoionization detector (PID),

flame ionization detector (FID), combustible gas indicator (CGI), or other appropriate instrument.

Depending on the available background information, it may be necessary to screen the container's air space or contents for one or more of the following:

- pH
- Radioactivity
- Presence of volatile organic vapors
- Presence of metals, chlorinated compounds, various pesticides
- Hydrogen cyanide fumes
- Flash point (using portable Seta Flash equipment or equivalent)

Next, before sampling, characterize the contents of the container using a thief (when possible), wooden dowel, or other implement that will reach from top to bottom of the container. The screening instrument/method readings, the physical characteristics (e.g., color, viscosity, particle size, etc.), and quantity of containerized material shall be recorded in the bound field logbook. The integrity of the drums may dictate that overpacking is necessary before sampling.

2.2.5 Container Sampling

2.2.5.1 Sampling Liquids

Sampling tools and sample containers shall be selected based on information gathered in the initial characterization of the container contents. In most cases, a glass COLIWASA will be used to sample liquids from containers. If liquids encountered are either very strong bases (e.g., concentrated sodium hydroxide) or hydrofluoric acid, then Teflon[®], Nalgene, or equivalent sampling tools and containers must be used, when possible.

To collect a liquid sample, slowly lower the tapered end of the outer COLIWASA sampling tube vertically into the liquid waste at a rate that allows the liquid level inside and outside the tube to equalize. The smaller diameter inner tube is raised above the bottom tapered end of the COLIWASA during lowering, usually by about 1 inch. Continue lowering the sample tubes until the bottom of the waste container is felt. If sludge is encountered near the bottom of the container, continue sampling and include this material in the sample, if possible. Seal the bottom of the outer sampling tube with the inner tube and slowly remove the COLIWASA from the liquid, keeping the seal and holding the tube in the vertical position. Wipe the outside of the tube as it is withdrawn from the container to remove excess liquid, if needed or possible. Place the lower end of the COLIWASA into the bottom of the sampling bottle, lift the inner tube slightly to break the seal, and begin to slowly empty the liquid contents into the sampling bottle. Repeat the procedure until sufficient sample has been collected; equal volume aliquots for composited samples.

Take care not to disturb the surrounding liquid when sampling. Record the sampling method used in the field logbook.

2.2.5.2 Sampling Semisolids

Use the previously described liquid sampling method to sample semisolids, if possible. A drum thief and inner sample extruder (i.e., dowel rod, glass tube) may be needed if the semisolid will not flow easily out of the COLIWASA. The contents may also need to be sampled with a core/split spoon sampler or auger to obtain an adequate sample. Sampling will be taken at several areas and from as many depths as possible in the container. If it is decided to composite, it is critical to take equal volumes randomly throughout the container or in each of four quadrants. All pertinent information shall be recorded in the logbook.

2.2.5.3 Sampling Solids

While sampling solids, the size of the sampling equipment may be important for certain sampling objectives. The diameter/width of the collection equipment may need to be at least three times larger than the largest particle present, if probabilistic sampling is needed. Also, if two or more distinct particle sizes are present in the sampling population, these different sized populations may need to be sampled separately.

Solid samples, similar in consistency to soil, can be collected from containers using an auger, core tube sampler (also referred to as a split spoon or split barrel sampler), or thin-walled tube. An auger can be used to collect soil-like samples if “disturbed” samples can be used (e.g., nonvolatile organic compounds are the contaminant(s) of concern). An auger boring is made by rotating and advancing to the desired depth and collecting a sample from the removed soil/materials. [See ASTM Method D 1452 - 65, *Standard Practice Method for Soil Investigation and Sampling by Auger Borings*, as referenced in 40 CFR Part 261 Appendix I.]

If undisturbed samples are needed, samples can be collected using a core tube sampler or thin-walled tube.² If the sample needed is at depth, the depth can first be reached using an auger. A core tube sampler or thin-walled tube is attached to the “T” handle or other device for coring/pushing. The core/tube is filled by pushing the barrel to its full length, then withdrawing it. A new, clean plastic liner can be used inside of the tubes. The sample can then be removed from the tube and placed in the sample jar or the filled plastic liner extruded and capped at both ends. The procedure is repeated until the bottom of the container is reached, if possible. Additionally, multiple locations within the container should be sampled, when possible.

If the solid is powdery or has small and/or granular particle size, a sample may be obtained by using a “grain thief.” The grain thief (also called a concentric tube thief) is commercially available in brass, stainless steel, or aluminum. The grain thief consists of two slotted telescoping tubes. The outer tube has a conical, pointed tip on one end to permit pushing through the material. With the sampler in the closed position, insert the pointed tip into the waste. The sampler may be pushed from the

² As described in the 40 CFR Part 261, Appendix I referenced method, ASTM Standard D 420 - 69, Standard Recommended Practice for Investigating and Sampling Soil and Rock for Engineering Purposes, which references the use of ASTM D 1586, Standard Test Method for Penetration Test and Split-Barrel Sampling of Soils and D 1587, Standard Practice for Thin-Walled Tube Geotechnical Sampling of Soils.

top opening of a drum or through the side if the waste is bagged. Push the sampler down or diagonally through the waste to a point at the bottom of the container opposite the entry point. Rotate the inner tube of the sampler to open the intake ports. With the ports open, rotate the sampler several times to allow the material to enter the slots. Rotate the inner tube to the closed position and withdraw the sampler from the container. The top end of the grain thief is open allowing for pouring of the sample out the end of the sampler into the sample container. Or, hold the sampler over a stainless steel bucket or other suitable container and rotate the tube to the open position, allowing the material to flow from the sampler. Fill the sample containers by using an alternate shoveling method. Repeat the grain thief sampling process until the required sample volume has been taken.

If the sample cannot be obtained using an auger, core tube sampler, thin-walled tube, or grain thief, then a sampling scoop/shovel may need to be used. The use of a scoop/shovel will limit how far into the container a sample can be collected. If all depths of sampling are needed, it will be necessary to remove the contents and sample the different layers/depths. Select an appropriate scoop/shovel (stainless steel, plastic, or Teflon[®]-coated aluminum). If it is possible, sample various depths of the container by starting at the top and sampling to the bottom. If this is not possible, take samples from the upper layer from various locations of the container and document the achieved depth of sampling. When compositing, make sure that each sample volume is approximately equal to the previous one.

If investigation objectives require statistically representative data to define the average properties of a drum or other container, the sampling technique used will ensure that every particle size and type is available for sampling. In the case of an open head drum of solid material, the material from the drum should be removed completely, counting the number of scoops/shovelfuls required to do so. Material from the drums is placed either on plastic sheeting or into another comparably sized, clean drum (with drum liner, if possible). Based on the total number of scoops/shovelfuls removed, various scoop/shovelfuls are selected systematically or randomly to sample as the material is being returned to the original container. These sample aliquots from the scoops/shovels corresponding to the systematic or random numbers are placed in the sample container. The number of aliquots needed is a function of the container size, particle size, and sample size. The principal analytical chemist assigned to the project team may need to be consulted to determine the sample volume required for analysis. For some sampling objectives, a large sample volume may be needed if the material being sampled contains large particles.

Under the most extreme conditions, the waste material may be a solid impenetrable mass. If it is safe, break up the large pieces with a mallet or other acceptable hammer and/or stainless-steel chisel. If sparks are a concern, use nonsparking tools. Fragments should be collected from several areas on the surface of the material and composited in a sample bottle. It may be necessary to collect the large pieces and return them to the laboratory as is. It is not practical under these conditions to attempt to sample below the surface of the material, unless the contents are removed from the container as they are sampled.

2.2.5.4 Multiphase Samples

In some circumstances, containers may hold material in two or more phases and/or material states (solid, liquid, or semisolid). In these circumstances, it may be desirable to sample each phase or material state discreetly. Liquids that are multiphase, can still be sampled using a COLIWASA, by placing the “column” sample into one sample jar. Under most conditions, phase sampling should be done with the uppermost layer first and proceeding downward to the bottom of the container or drum. Each discreet sample could be placed separately in an appropriate sample container. Two or more sampling devices may have to be employed to complete this type of sampling. The method used and the various depths reached by this method must be recorded in the field logbook.

2.3 Quality Control

Field replicate, blank, and other quality control samples will be collected, as described in the NEIC *Field Quality Control Samples* operating procedure, and/or the site-specific project plan.

2.4 Records

The sampling method used must be documented by recording pertinent facts in a bound logbook (or an approved electronic format, such as an electronic notepad). A bound drum logbook, with stenciled blank drum log information, may be useful for documenting drum descriptions, drum content information, and sampling details. All information must be checked for correctness and completeness by the project manager or sampler. If a mistake is made in the field notes, it must be marked through with a single line, then initialed and dated by the author. Other records generated will include photographs, custody tags for each sample container, completed custody documentation, and any transportation bills of lading/records.

U.S. Environmental Protection Agency
Office of Enforcement and Compliance Assurance
Office of Criminal Enforcement, Forensics, and Training

National Enforcement Investigations Center
Denver, Colorado

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Permanently Retired

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X-ray Fluorescence Spectrometer

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Authorization for Permanent Retirement

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U.S. Environmental Protection Agency
Office of Enforcement and Compliance Assurance
Office of Criminal Enforcement, Forensics, and Training

National Enforcement Investigations Center
Denver, Colorado

OPERATING PROCEDURE

**Title: X-ray Fluorescence Spectrometry Using the Niton Model
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Number: NEICPROC/11-001

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1 General Information

1.1 Purpose

This procedure describes the qualitative and quantitative analysis of samples, specifically metals in soils or sediment, using an x-ray fluorescence spectrometry method with the field portable Niton Model XLt 792 x-ray fluorescence instrument (XRF). The XRF method is generally used for field screening and site characterization.

1.2 Scope/Application

This procedure will assist field personnel performing elemental screening of metals in soil, sediment, or other matrices. Most elements of atomic number 16 or greater can be detected with an XRF. The detection limits depend on several factors; the analyte of interest, the time of sample irradiation, the physical matrix effects, the chemical matrix effects, and the inter-element spectral interferences.

The Niton XLt 792 is a hand-held, tube-excited, energy-dispersive XRF spectrometer. Samples can be analyzed in-situ (by placing the Kapton measurement window directly on a dry surface) or in a sample cup. Although liquids, slurries, and solid waste can be analyzed, more accurate results are achieved by analyzing dry, finely-ground, homogeneous, soil-like samples.

This procedure contains direction developed solely to provide internal guidance to NEIC employees. The procedure set forth does not create any rights, substantive or procedural, enforceable at law by a party to litigation with the U.S. Environmental Protection Agency or the United States. Refer to EPA Method 6200 for further guidance on reporting sample results.

1.3 Definitions

1.3.1 Bagged bulk sample – Indirect testing of bulk media such as soil or sediment by placing the sample in a plastic bag and performing XRF readings through the plastic bag (with the Kapton measuring window on the outside of the plastic bag.)

1.3.2 Compton Normalization Method or Backscatter Fundamental Parameter (BFP) – A calibration that relies on the ability of the XRF Si(Li) solid-state detector to separate the coherent (Compton) and incoherent (Rayleigh) backscatter peaks of primary radiation to calculate peak intensities. These peak intensities are known to be a function of sample composition, and the ratio of the Compton to Rayleigh peak is a function of the mass absorption of the sample.

1.3.3 Ex situ – Indirect testing of bulk media such as soil or sediment by removing a small amount and preparing a sample that is placed in a special sample cup for analysis with the environmental soils/solid testing platform.

1.3.4 In-situ – Direct testing of bulk media such as soil or sediment on the surface of the bulk media. Use of the soil test platform shield attached to the XRF measurement window will protect the Kapton window during in-situ testing.

1.3.5 Niton XLt Menu System – The Niton XLt 792 XRF user interface enables the user to perform critical tasks, including setting the correct date and time, setting the test mode, performing a detector calibration, making descriptive entries for sample readings, performing sample analysis, viewing spectra, uploading data to a personal computer, and erasing data.

1.3.6 X-ray tube – The x-ray tube provides the source of excitation x-rays that are directed at the sample. The Niton XLt 792 spectrometer is equipped with a silver anode x-ray tube.

1.3.7 XRF – X-ray fluorescence

1.4 Documentation/Verification

This procedure has been prepared by person(s) deemed technically competent by management based on their knowledge, skills, and abilities. The procedure has been tested and validated in practice and reviewed in print by a subject matter expert. A master copy of this procedure is kept in a central file by the Quality Assurance (QA) Representative, along with documentation of the review conducted prior to its issuance.

1.5 Associated NEIC Documents (Current Versions)

1.5.1 *Competency and Proficiency Testing for the Field Branch*, NEICPROC/00-019

1.5.2 *Equipment Inventory, Calibration, Maintenance, and Verification*, NEICPROC/00-018

1.5.3 *Estimation of Measurement Uncertainty*, NEICPROC/07-004

1.5.4 *Evidence Management*, NEICPROC/00-059

1.5.5 *Field Data and Data Package Review*, NEICPROC/00-069

1.5.6 *Guidance for the Conduct of Measurement Activities*, NEICGUID/11-001

1.5.7 *General Sampling Activities*, NEICPROC/04-001

1.5.8 *NEIC Field Safety and Health*, NEICPROC/00-034

1.5.9 *Subsampling, Including Drying and Grinding*, NEICPROC/00-065

1.5.10 *Waste Management*, NEICPROC/00-076

1.6 References

1.6.1 EPA Method 6200, Field Portable X-Ray Fluorescence Spectrometry for the Determination of Elemental Concentrations in Soil and Sediment, SWA 486, February 2007

1.6.2 Jenkins, Ron, *X-ray Fluorescence Spectrometry*, Wiley InterScience, 1999

1.6.3 Niton 300 Series and 700 Series User's Guide Version 5.2, 1998

1.6.4 Niton XLt 700 Series Environmental Analyzer User's Guide Version 3.5, 2002

1.6.5 Niton Workshop Proceedings “*Theory and Use of Field Portable X-ray Fluorescence for Soil Analysis*,” February 25, 2004

1.7 Precautions

1.7.1 Safety

This document does not purport to address all the safety issues associated with the use of the XRF. The user of this standard operating procedure is responsible for establishing appropriate safety and health practices. Observe proper safety precautions when using the XRF. Refer to the NEIC *Field Safety and Health* operating procedure and any pertinent site-specific health and safety plans (HASPs) for guidelines on safety precautions. These guidelines, however, should only be used to complement the judgment of an experienced professional.

The XRF contains a silver anode x-ray tube which is the source of x-rays that irradiate the sample with enough x-ray energy to result in measurable fluorescence. X-rays are harmful to the human body and can lead to permanent injury or death. Before operating the XRF, users must first complete a radiation safety and x-ray safety program approved by the NEIC Radiation Safety Officer. Users who operate the XRF are issued a radiation dosimeter badge to ensure personal exposure to radiation is kept to a minimum.

1.7.2 Contamination Control

The XRF is designed to limit x-ray emissions at, or below, levels generally regarded as safe. A safety mechanism prevents users from opening the shutter window when x-rays are generated. Take care to avoid contaminating or puncturing the tube window when performing measurements with the XRF. If necessary, clean or replace the tube window. When cleaning or replacing the tube window, never open the XRF instrument or defeat the shutter safety mechanism. Only qualified persons at the Niton service facility may perform internal maintenance on the XRF instrument. Always wear a dosimeter when operating the XRF.

When handling material samples, follow safe work practices to avoid contamination. If necessary, a plastic bag may be placed over the XRF to protect the probe window. Calibration standards should be analyzed with the plastic bag placed over the XRF probe window if measurements will be conducted while the plastic bag is over the XRF. If material samples will be prepared ex-situ, follow appropriate work practices to avoid contamination of surfaces and airborne dispersion of dusts. Material that is suspected or found to be hazardous must be handled according to the standard practice for the specific hazards.

1.7.3 Waste Management

XRF analysis is considered a non-destructive technique and should not introduce any new hazards to the material being analyzed. When performing in-situ measurements with the XRF, the material sample remains at its original location. If portions of the material are obtained with spatulas, scoops, or gloved hands,

take care to dispose of the equipment and gloves that were in contact with the sample if the material is suspected or found to be hazardous. Follow good work practices and refer to the operating procedure *Waste Management*, NEICPROC/00-076, current version, for specific guidance.

1.7.4 Specific Precautions

- Always follow radiation-safe work practices.
- Open the shutter only to do a test. Never point the XRF at yourself or anyone else when the shutter is open.
- Wearing a dosimeter badge does NOT protect you against current exposure. A dosimeter badge measures your exposure after the fact.
- If the instrument is not working properly, it must be removed from use and clearly labeled as inoperable ("red-tagged") until it has been repaired. Do NOT attempt to open the XRF analyzer or make repairs yourself.
- Operate the XRF only in proper environmental conditions.
- Read operational manuals and fully understand all aspects before attempting to calibrate and take sample readings.
- Make sure the method used is appropriate for the measurements taken (e.g., range and analyses, etc.).

1.8 Regulatory Authorities

NEIC XRF spectrometers using x-ray tube sources are subject to regulation by the Colorado Department of Public Health and Environment (CDPHE). The NEIC Niton XLt 792 is registered with the State of Colorado, and inspections are conducted periodically by the Radiation Control Division of the CDPHE to maintain registration. When the XRF is used in States outside of Colorado, the XRF operator is obligated to determine if the XRF is subject to regulation and notification in the State where it is to be used. The XRF operator must include the record of notification and associated documents in the project file. The Nuclear Regulatory Commission (NRC) Office of Federal & State Materials & Environmental Management Programs website (URL: <http://nrc-stp.ornl.gov/asdirectory.html>) lists the regulatory authority in each State as well as the regulations pertaining to the use of the XRF.

2 Methodology

2.1 Summary of Method

XRF spectroscopy is an analytical technique that exposes a material sample to an x-ray source. The x-rays from the source have the appropriate excitation energy that causes specific elements in the sample to emit characteristic x-rays. A qualitative elemental analysis is possible from the characteristic energy, or wavelength, of the fluorescent x-rays emitted. A quantitative elemental analysis is possible by counting the number of x-rays at a given wavelength.

The Niton XRF makes use of a silver anode x-ray tube to irradiate samples with x-rays. When the sample is irradiated with x-rays, the x-rays undergo scattering or absorption by the atoms in the sample. When atoms absorb the source x-rays, energy is given off. This energy is the emission of x-rays, or x-ray fluorescence, which is measured by the detector. Each element in the sample has its own characteristic x-ray spectrum which allows the XRF to determine which elements are present. The XRF displays the element and concentration in parts per million (ppm) on the XRF display screen.

2.2 Apparatus, Materials, Chemicals

- 2.2.1** Calibration check standards – generally, primary National Institute of Standards and Technology (NIST) standard reference materials (SRM)
- 2.2.2** Electric grinder – to reduce grain size of sample material
- 2.2.3** Mortar and pestle, hammer, or mallet – to reduce grain size of sample material
- 2.2.4** Mylar or polypropylene film – to cover sample cups or, in some cases, the XRF probe
- 2.2.5** Niton XRF instrument – the Niton XLt 792
- 2.2.6** Niton Data Transfer (NDT) software on a personal computer – to transfer and display data
- 2.2.7** Operating manual – for reference during operation and data analysis
- 2.2.8** Plastic bags – to contain sample material for collection or preparation for screening measurements
- 2.2.9** Sample cups – polyethylene containers and rings/covers designed for XRF analysis
- 2.2.10** Sieves – various mesh sizes to obtain finer particle size
- 2.2.11** Spatulas – to handle sample material
- 2.2.12** Scale – to record sample weights, depending on method
- 2.2.13** Test stand – to conduct measurements ex-situ, using sample cups
- 2.2.14** Trays or pans – for mixing and handling sample material

2.2.15 USB, serial adapter, and transfer cable – the transfer cable allows data transfer from the XRF to the personal computer as well as remote operation of the XRF

2.3 Personnel Responsibilities/Training

Users of this procedure must undergo training and be evaluated by an experienced analyst before being considered fully qualified to independently use this procedure.

2.4 Interferences

2.4.1 Method Interferences

Inter-element interferences as well as chemical and physical matrix effects can result in biased results. Only a trained individual with an understanding of x-ray analysis should make final interpretation of the results.

The XRF is calibrated for soil-like matrices to the linear range of the Compton Normalization Method to give accurate values for most elements in concentrations of 10,000 ppm or less. For concentrations greater than 10,000 ppm, a calibration curve for the specific sample matrix should be established.

XRF users should be aware that interference between elements can reduce or increase the sensitivity of the XRF to certain elements in some situations. Interference occurs when two or more elements have the same or very similar x-ray fluorescent energies. The XRF analyzer automatically corrects for cross-element interference in all modes continuously throughout each test. However, the detection limits for some elements will be higher when cross-element interference corrections are being made.

2.4.2 Federal Desktop Core Configuration (FDCC) and Information Technology Interferences

In May 2009, NEIC adopted the Federal Desktop Core Configuration (FDCC) and began the use of “managed desktops” controlled by Customer Technology Solutions (CTS). For XRF analysis using the Niton XLt 792, the following situations were encountered:

- The CTS laptop does not have a serial port. XRF operators must use a USB-serial adapter to transfer data between the XRF instrument and the laptop computer. Depending on the configuration of the CTS laptop user rights and other laptop settings, the USB-serial adapter may or may not work. XRF operators must test the operability of the USB-serial adapter to make sure data transfer can occur. Modifications to the baud rate may be necessary. Refer to the Niton user guide for specific instructions on modifying baud rate settings. Because CTS modifies user rights on a regular basis, it is very important that users test the CTS laptop in the undocked state immediately before performing any field measurements with the XRF.
- The Niton NDT software may or may not work depending on the configuration of the CTS laptop user rights and other settings. In some cases, XRF operators may not be able to use the software. XRF operators should

request “elevated privileges” from NEIC management and begin testing the XRF operability after “elevated privileges” are granted. Even with “elevated privileges,” XRF operators may be prompted to enter a justification in a usage/monitoring program before the Niton NDT software can be opened.

2.5 Sample Preparation

The Niton XRF can analyze several types of samples. For field screening or site surveying, in-situ testing is a convenient way to measure elements that are present. The test guard included with the XRF allows the instrument to be placed directly on a flat surface such as the ground or a wall for elemental analysis. In-situ analysis allows for rapid profiling of an area because no sample preparation is required.

When samples are collected in plastic bags, the XRF can screen the sample through the plastic bag without further preparation of the sample. If possible, the sample should be air dried, and the particle should be size-reduced for best precision. The composition of the sample in the bag should be as homogeneous as possible. Do not hold the bagged sample in your hand during testing.

Samples can also be carefully prepared and analyzed in an XRF sample cup. Use the sample preparation equipment provided by Niton to prepare samples for analysis.

2.6 Instrument Conditions

2.6.1 Startup and Standardization

1. Make sure the batteries are fully charged.
2. Affix the fully charged battery by sliding it on the bottom of the XRF instrument handle until it snaps into place.
3. Power on the XRF instrument.
4. Accept the Radiation Warning using the pen stylus located on the XRF handle.
5. Enter in the numbers 1, 2, 3, and 4 then E using the pen stylus.
6. Select the Utilities menu.
7. Select the Date and Time menu and enter the correct date and time.
8. Return to the Utilities menu and select Calibrate. Select the Calibrate Detector screen. This is the internal instrument standardization check. Record the date, time, measurement number, and resolution in the instrument logbook.
9. Return to the Main menu and select Test. The default Test mode is Soil or Bulk Mode.
10. The test stand contains five standards: Si Blank, NIST 2709, NIST 2710, NIST 2711, and Niton Resource Conservation and Recovery Act (RCRA) 500. In the Test menu, enter the standard information then perform measurements on each standard by depressing the shutter trigger or by

remotely activating the trigger using Niton software. The proximity button near the probe window must be activated either by successful configuration in the test stand or by applying enough pressure in-situ along a flat surface for the shutter mechanism to open.

11. To view the results, enter the View Data menu and select the measurement to view the results.

2.6.2 Analysis

1. Select Test and enter information about the sample. Start the measurement by activating the shutter mechanism.
2. The results will display on the screen during the measurement in units of ppm. The standard deviation is reported to the right of the elemental concentration. Use of longer measurement times will generally improve the standard deviation values.
3. Upon completion of the measurement, the results can be viewed in the View Data menu.
4. To shut down the XRF, return to the main menu and press the power button until the XRF powers off. Remove the battery and connect it to the charging system.

2.7 Procedure

1. Turn on the XRF. Adjust the date and time, if necessary. Allow the XRF to warm up for 15 minutes.
2. Select Calibrate Detector on the XRF to begin self-calibration. When the calibration is complete, record the date, time, measurement number, and resolution in the instrument logbook.
3. Check the XRF calibration with testing standards Niton has provided before making field measurements. During field measurements, accepted practice is to measure a reference standard once every ten measurements. When this is not practical, measure reference standards once an hour. Niton has provided NIST standards 2709, 2710, and 2711 as well as a Niton RCRA standard. The certified values for the NIST standards are listed in the operations manual and in the NIST SRM certificates for each standard. The standards should read within 10 percent of the certified value for most of the elements of interest. Conditions (such as using a plastic bag over the XRF instrument to prevent damage or contamination) may result in a larger standard deviation than in a controlled laboratory environment. Using longer measurement times will usually result in better values. Document calibration checks in the instrument and project logbook.
4. Perform field measurements. Record measurement information for each reading in the field logbook.
5. Verify the XRF calibration with the testing standards after field measurements are complete. Document calibration checks in the instrument and project logbook.

6. Transfer XRF measurement data to a personal computer using the Niton NDT software.
7. Turn off the XRF. Recharge the batteries.

2.8 Quality Control

Record the date, time, and calibration check information in the instrument logbook. Make sure to record the standards used to verify the calibration in the project logbook, as well as the instrument logbook. Note any problems or abnormalities during the use of the XRF. If the XRF does not appear to be operating properly, it should be “red-tagged” and taken out of service.

The XRF has been thoroughly calibrated at the factory. The XRF factory calibration should be performed every 24 months. Factors such as unforeseen budget shortfalls and procurement processes can delay factory calibration schedules, maintenance, and repair.

The XRF comes with several calibration check standards and a blank standard. Record the time and results of every calibration check. Check the instrument calibration in accordance with the manufacturer’s instructions. Perform duplicate measurements for the blank and the standards to fulfill requirements for method accuracy. Sample precision should be determined by replicate analysis of each sample matrix. For an element to be detected by the XRF, the measured concentration of the sample must be at least three times the standard deviation of the measurement. The measurement precision of each measurement is two times the standard deviation. An element is classified as detected if the measured concentration (in ppm) is at least 1.5 times the precision.

2.9 Calculating and Reporting Results

The results from XRF field measurements can be recorded electronically in a spreadsheet or in the project logbook. Consult a chemist or a specialist if details on calculations are needed. Record the place, date, and time the measurements were taken in the project logbook and enter details about specific measurements in the XRF test menu. Note the instrument operator in the project logbook. The instrument operator can also be noted in the test menu of the XRF. In some cases, the global positioning system (GPS) location of the material samples measured with the XRF may be entered in the test menu field. The logbook and electronic files should be given to the project manager after XRF screening, sampling, and recording results are complete.

2.10 Organizing the Data

After measurements are complete, the project logbook, the instrument logbook, and electronic files must be made available to complete necessary data quality reviews. The logbooks can be scanned to Adobe PDF format and posted with the electronic data files in a project-specific folder on an appropriately backed-up network drive. Copies of the PDF files and electronic files should also be made on permanent CDROM for inclusion in the project folder containing hardcopy materials.

2.11 Data Review and Documentation

The project logbook, instrument logbook, electronic files, and XRF data presented in reports must be reviewed in accordance with the operating procedure *Field Data Package Review*, NEICPROC00-069, current version, to ensure that the data is complete, is organized properly, and contains applicable quality control and to determine if the results are appropriate for the objectives of the testing. The data review should be done by a person who is competent and familiar with XRF analysis. The data review is documented on a Data Package Review form.

2.12 Maintenance

Before each use, the XRF operator must examine the XRF instrument to check for cracks in the instrument housing, a dirty or punctured probe window, and integrity of the view screen. The batteries must be evaluated to determine any problems with charging or holding a charge. If any problems are observed, the instrument must be “red-tagged” and placed out of service in an appropriately designated area in the field instrument room.

The calibration check standard sample cups must be visually examined for damaged or dirty film surfaces before use. The calibration check standard sample cups must be stored in the appropriate holder encased within the test stand when not in use. If the calibration check standard sample cups are damaged, new ones must be prepared using the same or appropriately chosen NIST SRM material.

U.S. Environmental Protection Agency
Office of Enforcement and Compliance Assurance
Office of Criminal Enforcement, Forensics, and Training

National Enforcement Investigations Center
Denver, Colorado

OPERATING PROCEDURE
Permanently Retired

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Date: 7/24/18

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U.S. Environmental Protection Agency
Office of Enforcement and Compliance Assurance
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National Enforcement Investigations Center
Denver, Colorado

OPERATING PROCEDURE

Title: Elemental Analysis

Effective Date: July 9, 2013

Number: NEICPROC/00-062R5

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<p>Quadrennial Review NEICPROC/00-062R4, <i>Elemental Analysis</i>, replaces NEICPROC/00-062R3</p> <p>This revision reflects the following changes: Inserted handwritten changes from previous revision. Sections were reworded for clarification. Appendices – Several authorship reassignments.</p>	February 6, 2009
<p>NEICPROC/00-062R3, <i>Elemental Analysis</i>, replaces NEICPROC/00-062R2 General – Changes to comply with ISO/IEC 17025/CAR C2002-018-18 Section 2.9 Quality Control – seventh paragraph. Added, “Confirmation analysis is necessary Appendices – Removed Appendix C <i>Finnigan Element Inductively Coupled Plasma High Resolution Mass Spectrometer Operating Procedure</i>. Individual appendices were updated and reworded for clarification.</p>	April 30, 2004
<p>NEICPROC/00-062R2, <i>Elemental Analysis</i> General – Associated NEIC Documents section and text references were updated. General formatting corrections. Appendix Revisions – Appendices B and C were revised</p>	October 15, 2002
<p>NEICPROC/00-062R1, <i>Elemental Analysis</i>, with Appendices A – M, Revision 1 replaces NEICPROC/00-062. Appendices J, K, L and M have been added.</p>	November 30, 2000
<p>NEIC PROC/00-062, <i>Elemental Analysis</i>, with Appendices A – I, original issue</p>	May 26, 2000

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APPENDICES

- A Aqua-Regia Digestion (For Solids)
- B KOH Fusion Dissolution for Elemental Analysis
- C ~~Perkin Elmer Optima Operating Procedure~~ *Optima 5300 Operating Procedure Jm 09/12/2014*
- D ~~Perkin Elmer Elan 6000 and Elan DRC II Inductively Coupled Plasma Mass Spectrometer Operating Procedure~~ *Perkin Elmer Elan DRC II / Nexion Inductively Coupled Plasma Mass Spectrometer Operating Procedure Jm 09/12/2014*
- E ICAP 61E Operating Procedure – **document retired**
- F Mercury Analysis by Cold Vapor Atomic Absorption Operating Procedure (Nippon RA-3420 mercury analyzer)
- G Mercury Analysis by Cold Vapor Atomic Fluorescence Operating Procedure (Nippon RA-3420 mercury analyzer with the RA-3F detector)
- H Eltra CS500 Carbon and Sulfur Analyzer Operating Procedure
- I WinSamp ICP-OES Data Reduction Program – **document retired**
- J ICP-MS Data Reduction Program “IDRUP” – **document retired**

1 General Information

1.1 Purpose

This procedure documents a general outline for elemental analysis.

1.2 Scope/Application

This procedure covers the analysis of elemental constituents and general quality control, calculation, data review, and reporting issues.

Elemental analysis is an important tool in characterizing the wide variety of sample matrices encountered at the National Enforcement Investigations Center (NEIC) laboratory. It may be used in conjunction with a regulation-specified method such as those associated with the Resource Conservation and Recovery Act (RCRA) (e.g., toxicity characteristic leaching procedure [TCLP]) or as part of a more general investigation such as pollutant source identification.

Samples must often undergo a preparation step to attain a form compatible with the analytical technique. For example, a soil must be solubilized prior to inductively coupled plasma (ICP) analysis. The analyst must consider the question that the analysis is attempting to answer before deciding on a preparatory technique. Some regulatory thresholds such as TCLP are concerned with the amount of certain elements that “extract” through a leaching process, while a question of elemental composition of a sample may be best answered by a “total” digestion process such as a fusion.

Elemental analysis techniques used at NEIC include: inductively coupled plasma-optical emission spectroscopy, atomic absorption spectroscopy, inductively coupled plasma-mass spectrometry, atomic fluorescence spectroscopy, and X-ray fluorescence spectroscopy.

Elemental analytical techniques may be used to determine “total” or “extractable” results. The analyst must determine, prior to analysis, which results will satisfy the data quality objectives of the project. Total elemental analysis will usually necessitate a digestion procedure that completely dissolves the sample, such as a fusion. The exception would be X-ray fluorescence analysis, which generally only requires some particle size reduction to reduce matrix effects. Analysis of extractable elements is conducted on a solution produced by introducing a fluid (usually a mild to concentrated acid solution) to the solid sample and analyzing the resulting solution. TCLP is the obvious example, but acid digestions such as test method SW-846 3050 also usually produce extractable results rather than total results.

This procedure contains direction developed solely to provide internal guidance to NEIC employees. The procedure set forth does not create any rights, substantive or procedural, enforceable at law by a party to litigation with the U.S. Environmental Protection Agency or the United States.

1.3 Documentation/Verification

The procedure has been tested and validated in practice and reviewed in print by a subject matter expert. A master copy of this procedure is kept in a central file by the quality assurance (QA) staff, along with the review conducted prior to its issuance.

1.4 Definitions

- **AFS** – atomic fluorescence spectroscopy
- **Blank** – a reference of identical constitution prepared under the same circumstances as the sample
- **Calibration verification standard** – known concentration of analyte prepared from a source other than that used to prepare the calibration standard(s)
- **CVAA** – Cold vapor atomic absorption spectroscopy; used for analysis of mercury
- **Digestion** – the process of solubilizing elemental constituents
- **Element** – A substance composed of atoms having an identical number of protons in each nucleus (American Heritage Dictionary, 4th Ed.)
- **Elemental analysis** – The identification and quantitation of elemental constituents in a sample
- **Extraction** – the removal of one or more components from the sample matrix through interaction with a liquid, sometimes known as leaching
- **FLAA** – flame atomic absorption spectroscopy
- **Fusion** – the complete dissolution of a sample by heating the sample with a flux material such as potassium hydroxide or lithium metaborate
- **GFAA** – graphite furnace atomic absorption spectroscopy
- **ICP-OES** – inductively coupled plasma-optical emission spectroscopy
- **ICP-MS** – inductively coupled plasma-mass spectrometry
- **RCRA** – Resource Conservation and Recovery Act
- **Reference material** – a material or substance, one or more properties of which are sufficiently well established to be used for the calibration of an apparatus, the assessment of a measurement method, or assigning values to materials. Reference materials should match a sample matrix as closely as possible.
- **Spiked sample** – a sample, subsample, extract, or digestate to which a known concentration of analyte has been added
- **TCLP** – toxicity characteristic leaching procedure
- **Total elemental analysis** – follows a complete dissolution of a sample by a fusion or hydrofluoric acid digestion. Although SW-846 refers to “total metals,” these methods are generally considered strong acid leaching procedures because refractory materials are not dissolved completely.

- **XRF** – X-ray fluorescence spectrometry

1.5 Associated NEIC Documents

- *Toxicity Characteristic Leaching Procedure* , NEICPROC/00-024
- *Open Vessel Microwave Digestion*, NEICPROC/99-014
- *Closed Vessel Microwave Digestion*, NEICPROC/99-013
- *Equipment Inventory, Maintenance, Calibration, and Verification*, NEICPROC/00-018
- *Balance Calibration/Verification and Maintenance*, NEICPROC/99-003
- *Autopipettes Calibration, Verification, and Maintenance*, NEICPROC/99-004
- *Flame and Transversely Heated Graphite Atomization Atomic Absorption Spectroscopy*, NEICPROC/99-017
- *X-Ray Diffraction for Qualitative Identification of Crystalline Phases*, NEICPROC/99-019
- *Laboratory Data and Data Package Review*, NEICPROC/00-066
- *Safety, Health, and Environmental Management Program Manual*, NEICMANL/00-001
- *Evidence Management*, NEICPROC/00-059
- *Laboratory Branch Project Planning and Coordination*, NEICPROC/00-022
- *Laboratory Hazardous Waste Container Log*, NEICFORM/04-002
- *Laboratory Data and Data Package Review*, NEICFORM/01-003
- *Estimation of Measurement Uncertainty*, NEICPROC/07-004
- *Waste Management*, NEICPROC/00-076
- *X-Ray Fluorescence (XRF) Spectrometry*, NEICPROC/02-003

1.6 References

- 40 Code of Federal Regulations (CFR) Part 261 – Identification and Listing of Hazardous Waste
- SW-846 – Test Methods for Evaluating Solid Waste, Physical/Chemical Methods

1.7 Precautions

1.7.1 Safety

This document does not purport to address all of the safety issues associated with its use. It is the responsibility of the user of this standard procedure to establish appropriate safety and health practices. Always observe proper safety precautions when performing elemental analyses. Refer to the *NEIC Safety, Health, and Environmental Management Program Manual*, NEICMANL/00-001, and any

pertinent site-specific health and safety plans (HASPs) for guidelines on safety precautions. These guidelines, however, should only be used to complement the judgment of an experienced professional.

When using this procedure, minimize exposure to potential health hazards through the use of protective clothing, eyewear, and gloves. Some of the sample/standard preparations require the use of concentrated acids or bases which present a safety hazard if allowed to contact the skin or eyes. Avoid fumes by using a working laboratory hood for these operations.

Several instruments used for elemental analysis produce toxic vapors and must have appropriate exhaust hoods.

The unknown chemical nature of the samples requires that they be treated as hazardous. All operations must be carried out in a working laboratory hood and using appropriate personal protective equipment.

1.7.2 Contamination Control

Reagent and/or preparation blanks shall be analyzed with each group of samples, where applicable. The analyst should exercise care in selecting reagents and glassware of sufficient purity and method compatibility to minimize impact on analytical results.

Trace-level work may require certified ultra-pure acids, acid washing of containers and pipette tips, and clean room-like preparation area depending on analytical objective and the type of analysis performed. High-level and trace-level sample preparation should be kept separate. For trace-level metals analysis, glassware should not be used.

Use disposable laboratory ware when appropriate to minimize potential cross-contamination. Replace gloves that become contaminated before handling another sample.

1.7.3 Waste Management

Make all efforts to minimize waste during the use of this procedure. Handle any waste generated in accordance with the *Waste Management* procedure, NEICPROC/00-076. Record the contents of waste collection containers on "Laboratory Hazardous Waste Container Log," NEICFORM/04-002. Following completion of the analysis, including data review, the principal analytical chemist (PAC) must collect remaining digestates or extracts. Arrangements can then be made with the Laboratory Branch Hazardous Waste Control Officer to take the containers to Building 11 for disposal.

1.7.4 Specific Precautions

The sample preparation method(s) and the analytical technique chosen must be appropriately specific and sensitive to meet the data quality objectives. The analyst should discuss data quality objectives in advance of the analysis with the project manager or the principal analytical chemist.

All sample preparation and analysis must be performed by a fully qualified analyst or under the direct supervision of a fully qualified analyst. Less

experienced analysts are encouraged to discuss chosen techniques with senior chemists. Those experienced with a given technique can provide valuable insight about potential problems and solutions.

Take special care not to contaminate reagents, standards, and samples. Observe the shelf life of reagents and standards.

Choose standard reference materials (SRMs) which, as closely as possible, match the sample matrix. A variety of SRMs are available from several sources. A binder containing certified values is stored in a central file by the QA staff. If an appropriate SRM is not currently in-house, the analyst must try to obtain one prior to beginning analysis.

Read operational manuals and fully understand all aspects before attempting to calibrate and use instruments.

Allow ample time for the instrument to warm up before calibration.

If the instrument is not working properly, it must be removed from use and clearly labeled or marked as inoperative until it has been repaired. Analysts can contact the primary operator for assistance.

2 Methodology

2.1 Summary of Method

A general overview of elemental analysis, including quality control, is provided by this method. Specific information on the various techniques available to accomplish elemental analysis is found in the appendices as referenced by the technique of choice. Additional stand-alone procedures exist for some instruments. The analysis technique chosen will determine sensitivity and ultimate data quality and must be considered on a case-by-case basis as dictated by the data quality objectives of the investigation.

Criteria for selecting an instrumental technique include specificity and sensitivity. A technique must be sufficiently specific to determine whether or not an analyte is present. Sensitivity will be determined by project objectives. Much greater sensitivity will be necessary to detect levels close to drinking water limits, for example, than to detect levels that are several times the RCRA limits. In general order of increasing sensitivity, the instrumental techniques are: XRF, AA, AFS, ICP-OES, and ICP-MS.

Elemental analysis will generally include a preparatory step (such as digestion), an analysis step, and a data reduction step.

2.2 Apparatus, Materials, Chemicals

Specific tools, equipment, materials, and chemicals will be dependent on the analytical technique chosen. See the appendices and “Associated NEIC Documents” (Section 1.5).

2.3 Personnel Responsibilities/Training

Users of this procedure must undergo training and pass a competency evaluation before being considered fully qualified to independently use this procedure in project work. The user is responsible for correct preparation and analysis of the samples as well as processing, evaluation, and reporting of data in the format requested by the principal analytical chemist or project manager. Analysts who are not considered fully qualified must work under the direct supervision of a fully qualified analyst.

2.4 Sample Handling and Storage

Collect, preserve, and store all samples as required for the analytical technique that will be used. Refer to appropriate documents for guidance such as SW-846, 40 CFR, and the NEIC operating procedure, *Evidence Management*, NEICPROC/00-059.

Laboratory samples will become disposable waste when they are no longer needed for litigation or other purpose. Custody must be maintained until completion of the case.

2.5 Interferences

Each of the individual elemental analysis techniques has specific types of potential interferences. The general categories include sample matrix, instrumental, and interelemental interferences. Refer to specific methods for more detailed descriptions.

2.6 Sample Preparation

- See Appendices A and B or other extraction or digestion methods.
- Refer to Sections 1.5.2, 1.5.3, and 1.6.2.
- Other sample preparation methods are available and may be appropriate, depending on sample matrix and data quality objectives.

2.7 Instrument Conditions

- See the *Elemental Analysis* appendices or instrument-specific procedures.

2.8 Procedure

- See the appropriate appendices for instrument setup, optimization, calibration/verification.
- Refer to Section 1.5.
- Other analytical methods may be appropriate depending on project objectives.

2.9 Quality Control

Appropriate quality control events must be included as part of the elemental analysis. Although the specific events may vary depending on the analytical technique, in general, blanks, triplicates, spiked samples, and quality control (QC) check samples or reference materials shall be analyzed at acceptable frequencies during an analysis run. The data quality objectives for each case must be considered when determining the appropriate frequency of all quality control events that will be employed.

It is NEIC standard procedure to perform, whenever reasonably possible, quality control on all individual samples that show specific exceedances of regulatory thresholds. For instance, if five drum samples are analyzed for RCRA characteristics and four are found to exceed a threshold concentration, sufficient QC should be performed on each of the four samples to support each exceedance and estimate the associated measurement uncertainty. In addition to this unit QC, which is necessary for legal purposes, QC should also be performed on sample batches in order to demonstrate the procedures are generally within acceptable QC limits.

As a general rule, triplicates should be analyzed at approximately 10 percent frequency for a batch of samples. Batches shall be determined based on all available knowledge of samples. Triplicates can be subdivided into two types: analytical and measurement. Analytical triplicates are those which undergo a preparation step (e.g., digestion, extraction), while measurement triplicates are done at the instrument level; that is, a single sample preparation is measured three times. The purpose of analytical triplicates is to gain some indication of the homogeneity of the sample as well as the precision of the preparation method. The individual preparations are analyzed in close temporal proximity to minimize possible instrumental drift effects. Measurement triplicates, on the other hand, are meant to give some information about the stability of the measurement process and shall, therefore, be spread out over the course of the analytical run.

Likewise, spikes and reference materials generally consist of both analytical and measurement types. Analytical spike results can be used to infer bias of the digestion or extraction procedure for the element of concern, but care must be exercised that solubility issues are addressed as necessary. Measurement spikes are often useful in checking potentially interfering elements or other factors influencing bias at the instrument level. For both analytical and measurement spikes, spike levels should be near the concentrations in the sample. An initial preparation of the sample can be screened to determine appropriate spike concentrations.

Analytical reference materials are most meaningful when they approximate the matrix of the samples in question. For example, an aqueous reference material may not represent matrix effects present in a solid sample. Alternate source standards (measurement reference standards) should be used to confirm that instruments have been properly calibrated.

Acceptance/rejection criteria for QC events will depend on the technique and the matrix being investigated. For example, a low suspended solids water matrix would be subject to tighter limits than a sludge matrix largely due to sample homogeneity effects. Analysts and reviewers may use the following table for general guidance. Other QC criteria may be specified in individual methods, or by the specific objectives of the analyses.

Guidance Acceptance Criteria for QC Parameters

Quality Control Measures	Water: Drinking	Water: Low TSS	Water: High TSS	Sludges and Soils	Hazardous Wastes
Precision					
*Triplicates (%RSD)					
Measurement	5	5	10	15	15
Analytical	10	10	20	30	50
Bias					
**Spiked Samples (%Rec)					
Measurement	90 - 110	90 - 110	85 - 115	80 - 120	80 - 120
Analytical	85 - 115	85 - 115	80 - 120	70 - 130	50 - 150
***Control Sample (%Rec)					
Measurement	95 - 105	90 - 110	90 - 110	90 - 110	90 - 110
Analytical	85 - 115	80 - 120	80 - 120	80 - 120	70 - 130

* Assumes a sample concentration of at least ten times the Limit Of Detection

** Assumes a spike level equal to or greater than the sample level

*** Assumes the true value is at least ten times the Limit of Detection

Results near a regulatory threshold are expected to meet statistical tests necessary to show that the threshold has been exceeded with a stated degree of confidence. This frequently requires analyzing sufficient subsamples to produce an estimate of the

measurement uncertainty with a 95 to 99 percent confidence interval. Confirmation analysis is necessary when regulatory thresholds are involved. An independent alternate technique is preferred for confirmation.

Document information on all reagents and standards, including the manufacturer, lot number, and expiration date (if applicable), in the data package.

Analyze reagent and/or preparation blanks as necessary.

Additional quality control measures that may be necessary include alternate technique confirmation analysis, alternate analyst parallel analysis, or method of standard additions. Data quality objectives of individual cases will determine when these measures are useful.

2.10 Calculating and Reporting Results

All bench sheets, raw data, QC summaries, computer generated data, and related documents must include the project code, date, and analyst's initials. Mistakes shall be crossed out with a single line, initialed, and dated with the correction written next to the mistake.

Use appropriate means for processing the analytical results. Include example calculations where appropriate. Calculations must be clear and complete, including units of measure.

Quality control results shall be clearly indicated and minimally include percent relative standard deviation for replicate results, percent recoveries for spiked samples, and percent recovery for reference materials. Include an estimate of measurement uncertainty in any data package reporting quantitative results.

2.10.1 Estimating Measurement Uncertainty

Analysts are required to estimate measurement uncertainty for all quantitative results. See NEICPROC/07-004, *Estimation of Measurement Uncertainty*, for acceptable methods of determining and reporting measurement uncertainty.

2.11 Organizing the Data

The final data package must include all documents pertinent to the sample analysis.

Generally, data packages shall include documents for sample preparation, raw data, processed or calculated data, quality control results, a table or other report for the data, and an estimate of measurement uncertainty. Some techniques will require additional documents, such as inter-element correction tables or internal standard data. Refer to the specific procedure for each individual analysis technique for more detailed descriptions of necessary documentation.

2.12 Data Review and Documentation

All data must be reviewed prior to issuance of the analytical report. The data review process is a critical part of the analytical scheme and needs to be considered with care during the planning of the analysis. The analyst must allow sufficient time for data review when a deadline is involved. Sufficient time is dependent on the complexity of the chosen technique and the number of samples analyzed.

Data review shall be performed by a person who has been deemed qualified in the given technique. A list of currently qualified data reviewers is kept by the Laboratory Branch Quality Assurance Representative and updated periodically with the concurrence of the Laboratory Branch Chief. The analyst shall communicate with the data reviewer the parameters to be reviewed and how the data will be used (i.e., the data quality objectives). Part of the data review will be checking that no transcription errors have occurred. The reviewer must check calculations at a frequency sufficient to cover the data set.

It is not the responsibility of the reviewer to do any completion work on a data set. The package will be returned to the analyst if it is not complete.

Data reviews shall be documented through use of the *Laboratory Data and Data Package Review* form.

See *Laboratory Data and Data Package Review*, NEICPROC/00-066, and *Laboratory Branch Project Planning and Coordination*, NEICPROC/00-022.

APPENDIX A

Aqua-Regia Digestion (for Solids)

1. Accurately weigh approximately 1 gram of a sample into a 125 milliliter (ml) Phillips beaker.

Note: The Hotblock digester with disposable 50 ml tubes may be used when samples contain low levels of organic constituents.

2. Add enough PRO H₂O (approximately 1 ml) to wet the sample. It may take a few minutes for the solids to absorb the water.

Note: Acid added directly to a dry solid may cause the formation of insoluble silicic acid.

3. Add 7.5 ml concentrated HCl and cover the beaker with a watch glass.

Note: Addition of HNO₃ first may cause the formation of insoluble nitrates.

4. Place the beaker on a preheated hot plate to warm the sample for 5 minutes.

5. Remove the beaker from the hot plate and cool. Meanwhile, increase the hot plate setting to a temperature (approximately 95 °C) that does not boil the sample and acids.

6. Add 2.5 ml concentrated HNO₃ and re-cover the beaker with the watch glass.

7. Return the beaker to the hot plate and heat for 1 hour. Make sure it is not allowed to go dry and that the solution does not boil.

8. Remove the beaker from the hot plate and allow it to cool.

9. Filter the digestate through Whatman 41 paper or equivalent, and dilute to 100 ml.

10. Follow appropriate guidance regarding blanks, replicates, spikes, and reference materials.

APPENDIX B

KOH Fusion Dissolution for Elemental Analysis

1. Scope/Application

This method offers a vehicle to dissolve inorganic elements from a variety of semi-solid and solid waste materials. In particular, organic matter is largely destroyed and silica matrices are dissolved.

The method has been successfully used to prepare solutions for the elemental analysis of oils, fats, polymers, pigments and paint, soil, sludge, sediment, fly ash, glass, and inorganic salts.

The recovery of thirty elements has been verified in a number of standard reference materials. Nickel and cobalt are not quantitatively recovered in the SPEX forty-nine element mix.

For routine use of the method, HNO_3 is recommended although HCl may be used if the analyst can demonstrate that use of HCl results in meeting QC requirements. For quantitative results for silver above approximately 100 mg/kg, the exclusive use of HCl is recommended.

2. Safety

High concentration industrial waste samples must be handled so that exposure to personnel through either skin contact or inhalation is avoided.

3. Method Summary

A 0.2 g (maximum) aliquot of sample is fused with 2 g potassium hydroxide in a vitreous carbon crucible. Commercial potassium hydroxide usually contains about 15% by weight of water. Water appears to help destroy organic matter by hydrolysis reactions. In addition, the water appears to lower the melting point of the mixture to about 125 °C although the KOH may be dissolving in the residual water at this temperature to mimic melting. The water-potassium hydroxide melt is formed during heating in a block digester. The temperature of the melt is increased slowly so that vigorous oxidation reactions between organic matter and the fusion matrix can be controlled. The temperature is slowly raised to 460 °C, and the melt solidifies as the water evaporates and the temperature passes 360 °C. Then upon further heating, anhydrous KOH (and K_2CO_3 from absorbed CO_2) melts at around 400 °C, depending upon the amount of K_2CO_3 and other dissolved matter from the sample. The higher temperature of this melt subjects the sample to an oxidizing environment, perhaps due to the partial transformation of KOH to KO_2 .

The cooled fusion mass is rinsed from the crucible into a beaker. Nitric acid is warmed in the crucible and then rinsed into the beaker. Hydrogen peroxide is then added to the solution to aid in the dissolution. The peroxide reduces Cr(VI) to Cr(III), which may avoid precipitation of insoluble metal chromates. When titanium is present in high concentrations, the orange peroxide $[\text{Ti}(\text{O}_2)(\text{OH})\text{ag}]^+$ complex is formed with the peroxide. The peroxide addition may also aid in the dissolution for stabilization of B, Co, Mn, Mo, Si, W, and other elements. The solution is shaken overnight to aid dissolution and to outgas the peroxide. The final dilution volume is generally 100 ml.

4. Apparatus, Materials, Chemicals

Apparatus

- Block digester-temperature controlled to 460 °C. Set up to hold vitreous carbon crucibles
- Exhaust hood or suitable venting system
- Rotary shakers (2), variable speed
- Vitreous carbon crucibles
- Asbestos tray
- Handling tongs–platinum tipped
- Hotplate–preferably ceramic top
- Disposable biological membrane filters (0.45 µm or 0.8 µm) or membrane filter apparatus and filters (0.45 µm or 0.8 µm)
- Disposable plastic 4 oz. sample cups with lids
- Rectangular screw cap 125 mL plastic bottles

Chemicals

- Potassium hydroxide, reagent grade
- Nitric acid, concentrated, Instra Analyzed
- Hydrogen peroxide, reagent grade, 30%

5. Sample Preparation

Waste samples are not generally dried, and results will be reported on a wet weight basis. However, for waste samples that are known to have low concentrations of contaminants or for environmental samples, the solids may be dried and ground to facilitate subsampling. These results will be reported on a dry weight basis. Phases of a sample will be prepared and analyzed individually.

6. Procedure

1. Using the control box, set the block heater to 160 °C. The heater itself shall be mounted on a rotary shaker.
2. Weigh accurately approximately 0.2 g (not more) of sample into a vitreous carbon crucible. The crucibles are identified by their position in a tray only. The crucibles cannot be marked.

Notes:

Because 2 grams of fluxing agent (KOH) will be used, not more than 1/10 of this weight of sample shall be digested.

Recommended particle size for dried samples is 32 mesh. (Tyler Standard = 0.5mm)

A convenient (but not necessarily representative) digestive spike is the SPEXMIX multi-element standard. To 0.18 g of sample add 0.02 g of SPEXMIX.

3. Add 2.0 ± 0.1 grams of KOH pellets to each crucible. Use the same bottle of KOH to prepare a blank solution for matrix matching of standards and preparing dilutions during analysis.

Note:

Digestion blanks are empty crucibles to which the KOH pellets are added. Prepare at least three blanks with each sample set.

4. Transfer the crucibles to the block heater (160 °C). Each crucible sits on a 1-inch piece of aluminum pipe inside the block heater. Put the cover on the heater.

Note:

Maintain the crucibles' relative positions for later sample identifications.

5. Every 10 minutes, observe the samples for the melt. After the samples have liquified, turn the rotary shaker on at a moderate speed that does not shake the cover off of the heater. Shake for 1 hour.

Note:

After 1 hour, a pellet or unmixed portion of sample may exist. Using tongs, shake and swirl the crucible until all the sample has been incorporated into the melt.

The process may take as long as 3 hours. This step is critical, and accurate observation is essential.

6. Using the control box, set the block heater to 460 °C. After the heater has reached 460 °C, heat the samples for 1 hour with rotary shaking.

Note:

Although the drying step and subsequent melting to form the glass flux may not be obvious, 1 hour at temperature is adequate.

7. Remove the crucibles from the block heater and allow them to cool to room temperature. Fill the crucibles with PRO water and allow the flux to dissolve for a few minutes. Rinse the crucibles completely into 4-oz. sample cups which have been marked with sample identifications. Use up to 70 ml of water for this step.

Note:

Maintain position for identification.

8. Add 8.0 ml of concentrated HNO₃ to the rinsed crucibles and put the crucibles on a hotplate set at LOW for 10-15 minutes.

Note:

Maintain position for identification.

9. Add the 8 ml HNO₃ in each crucible to the respective sample cup, and rinse the crucible into the same cup using PRO water. Keep the total volume less than 95 ml.
10. Put the lids on the cups, and slit the lids with a razor blade to allow venting. Shake on the rotary shaker for 30 minutes.
11. Add 1.0 ml of 30% hydrogen peroxide to each cup, and continue shaking overnight.
12. After shaking overnight, filter each sample using a disposable 0.45 µm or 0.8 µm filtering unit. After the liquid has passed through the filter, release the vacuum completely and put 2.0 ml of HNO₃ onto the filter. Allow the acid to remain on the filter for at least 3 minutes, but not longer than 5 minutes. Re-apply the vacuum and rinse the filter with a small amount of water, keeping the total volume less than 100 ml.
13. Bring the total volume of each sample to 100.0 ml and transfer into a labeled 125-ml rectangular screw-cap plastic bottle for metals determination.

7. Precautions

The crucibles must be cleaned for the next set of samples. This involves putting about 2 grams of KOH into each crucible, putting the crucibles on the block heater at 460 °C for 1 hour, and performing steps 6 thru 8 with the crucibles.

8. Quality Control

1. Prepare at least three digestion blanks with each analysis group.
2. Prepare two samples in triplicate for each analysis group.
3. For each sample selected for triplicate analysis (item 2 above), prepare one spike using $0.02 \text{ g} \pm 0.0005 \text{ g}$ SPEX forty-nine element mix, or other suitable multi-analyte standard. On the bench sheet, record the exact weight of the spike to the nearest 0.0001 g. It is best to add the spike to the crucible first, followed by the sample. Weigh the SPEX mix into the crucible outside the hood, if necessary, to obtain adequate precision.
4. Prepare two reference material samples with each analysis group. Reference materials should match the matrix of the samples if possible.

APPENDIX C

Optima 5300 Operating Procedure

General Startup

1. Observe settings for the gases (argon and compressed air, both between 80 to 120 psig) and the readings on the water chiller (approx. 55-57 psi and 15-17 °C) to confirm that those are functioning properly. Check the connections for the tubing, autosampler probe, rinse container, spray chamber, and instrument drain.
2. Check tubing for the instrument peristaltic pump (sample in, drain out) for wear (possible flat spots). Replace with fresh tubing if needed; stretch the tubing some prior to installation on the pump. Check the tubing for the autosampler pump (rinse fill and the drain tubing for the autosampler). The tubing for this pump on the autosampler should not need frequent changing, but if a crack, hole, or excessive wear is visible, then replace with fresh tubing. This tubing type has three tubing stops (two sections). It is possible to alternate use of the tubing sections and extend the working life of the tubing.
3. Align sample, internal standard, and drain tubing on instrument peristaltic pump, secure and tighten. If the autosampler will be used, position pump tubing for the probe rinse, secure, and tighten.
4. Fill the rinse container for the autosampler; generally, this will be filled with 5% nitric acid for the rinse. Check the instrument drain and empty it according to laboratory procedures if it is near the "Full" line.
5. Turn on the computer and the printer.

Note: Printer must be turned on before sending a print command to it from the computer. Sending a print command prior to turning on the printer will result in the rapid printing of many pages with meaningless, mixed alphanumeric characters.

6. Upon computer startup, select your user account from the list of users.

Note: Each user of the Optima should have his/her own user account to login from the main screen which will open to an individual work area on the computer. Paths for methods, sample information files, and data collection using WinLab32 should be directed only to the databases specific for that user.

Note: The WinLab32 software is installed on the hard drive, and each user area has a shortcut link to open the software. Since the one program is accessible to all users, any change to the functioning of the software program in one user's area will affect all users. If it becomes necessary to make a change in the way the WinLab32 software program runs, please consult the primary operator before making changes.

7. After the user account has opened, double-click the WinLab32 shortcut from the desktop to start the program. The program will initiate communications with the instrument and the autosampler at this time. The autosampler probe may move to the rinse position and the autosampler pump wheel may begin rotating: To stop this, press the F11 key and the probe will lift and the pump wheel will stop.

8. Open the plasma control window and turn on the plasma.

Note: If a method was loaded before the plasma was turned on, then the parameters specified in the method will be followed by the instrument. The instrument should warm up approximately 40 minutes before starting an analysis.

9. Check for proper flow of liquid through the tubing and into the spray chamber. Check for proper drainage of liquid from the spray chamber to the drain reservoir. Check for flow of rinse solution into and out of the autosampler rinse location. Adjust tubing as needed to acquire the correct flows.

Performing an Analysis

1. Load the desired method from the user's method database. Use the toolbar button 'Method:' and select the path to the method (in the Methods database at C:\pe\user account name\methods\methods.mdb). Click on the 'MethEd' icon in the toolbar to open the 'Method Editor' and check the last "page" in the method to make sure that data from the analysis will be saved.

Note: The 'Method Editor' has tabs on the bottom and the side to allow the user to access the different pages (or layers) of information within the window.

2. Prior to analysis, use 'save as' from the File menu to save the method with the project code and user initials in the name of the method.

Note: Since accreditation requires that each project document has the project code, analyst's initials, and date, renaming the method for each analysis is one way to meet that requirement for all data printed during the analysis.

3. Load the desired sample information file (SIF) from the user's SIF database. Use the toolbar button 'Sample Info:' and select the path to the SIF (in the Sample Information folder at C:\pe\user account name\sample information). Display the 'Sample Information Editor' by clicking on the 'SamInfo' icon. Make any changes to the file to reflect the analysis that will be performed, rename the SIF, and save.

Note: Each user area should have a copy of a Default Sample Information File that was formatted to allow data to export into the WinSamp data processing program.

4. If desired, open additional windows within the program to display the spectra ('Spectral Display' window) and the results ('Results' window) of the analysis by clicking on those icons in the toolbar.

5. Samples can be analyzed manually or using the autosampler. Click the 'Manual' icon for the 'Manual Analysis Control' window or the 'Auto' icon for the Automatic Analysis Control window. The icon for the other control window will gray out after a selection is made.

Automated analysis

- a. Open the Automated Analysis Control window. Click the 'Set Up' tab at the bottom of the window to show that layer of the Automated Analysis Control window.
- b. Set the path to save the results for the analysis in the 'Results Data Set Name' area. Click 'Open...' and either select a file or create a file for storage of the data. Select 'Save Data' below the data set name.
- c. Select the sample information file to be used with this automated analysis; click 'Open...' at the Sample Information File area and select the SIF for the analysis. Select the 'Use Sample Info' check box also.
- d. Select 'Print Log During Analyses' if desired.

Note: There is also a check box labeled 'Auto Wavelength Realign'; checking this box will instruct the instrument to perform an Hg alignment. Frequent Hg alignments are recommended, and this is easy way to do perform that alignment. Click in the check box and click the button labeled 'Set...' to select that the alignment take place before the analysis begins.

- e. Click on the 'Analyze' tab. Click on the 'Rebuild List' at the bottom of this layer of the window in order to load the sample list from the sample information file into the Automated Analysis Control sequence. The sequence listed in this window can be printed ('Print List' button).
- f. Click the 'Analyze All' button to start the analysis.

Note: It is possible to add samples while the analysis is running. Using the 'Priority ...' button at the bottom of the Automated Analysis Control window, a sample can be added and analyzed immediately or at the end of the run.

Manual analysis

- a. Open the Manual Analysis Control window and set the path for saving the data in the 'Results Data Set Name' area. Click 'Open...' and either select a file or create a file for storage of the data (in the Results database at C:\pe\user account name\results\results.mdb). Select 'Save Data' and 'Print log' if desired.

- b. The Manual Analysis Control window will access and display the sample information from the SIF when the SIF is loaded into the 'Info File' area. Click 'Open...' and select the desired sample information file for that analysis.
 - c. Blanks and calibration standards from the SIF will be listed in the pull-down tabs next to the corresponding analyze buttons.
 - d. Click the buttons to analyze the blank, standards, and samples. The autosampler can be used in manual analysis mode; simply direct the autosampler probe to the location of the blank, standard, or sample to be analyzed before clicking an analysis button.
6. The progress for the analysis of each sample can be observed in the 'Sample Progress' areas of the manual or automated control windows and with the plasma status icons that indicate when measurements are being taken axially or radially.

Shut down

1. Aspirate 5% nitric acid for several minutes; follow that with a few minutes of PRO water and then aspirate air only (lift autosampler probe using F11 key) until all liquid has been drained from the spray chamber.
2. Turn off the plasma in the Plasma Control Window. The plasma will turn off immediately, and the gases will shut down gradually.
3. Release the clamps on the tubing (both instrument pump and autosampler pump) and disconnect one end of the tubing from the pump rollers (pull up and off at one of the tubing stops).
4. Shut down WinLab32 and shut down the computer. Turn off the printer
5. Sign instrument logbook with initials, date, project number, and any applicable comments regarding the analysis.
6. Remove all standards and samples from the autosampler racks and clean up around the instrument and computer workstation space.

Archiving Data

Periodically, users of the Optima should archive their data in Data Manager in order to avoid problems with memory and loss of data from an excessively large results database. This must be done by the user (the person who has generated the data sets) instead of the primary operator because only the user will know which data files should remain in the database and which can be archived. Data can be retrieved from archives, if needed.

1. After selecting and entering your Windows user account area, open Data Manager using the shortcut on the desktop. Check that Data Manager has opened the results database by

observing that the 'Library Category' selected is results, and the 'Library Name' is c:\pe\user account name\results\results.mdb.

2. Select the sets of data to be archived from the 'Result Name' list and click the 'Archive' button from the task bar.
3. A message will appear asking for confirmation and will caution that the archiving process can be time-consuming. Click 'OK' to proceed.
4. An archive data sets window will appear with choices to archive the entire library (database) or selected data sets only. Items listed under the 'Result Name' column are the data sets that have been selected for archiving. The 'Archive Description' at the bottom lists the default name and storage location. The archived data set will be stored in the user's archived data folder, and the default name for the archive set will include the current date (c:\pe\user account name\archived data\RS012709.zip). Change the name for the archive set if desired and select 'OK' to proceed.
5. After the archive is made, the selected data sets will still be highlighted in the results database. Click the 'Delete' button to remove those data sets from the database. A delete data sets window will appear with the list of the data sets to be deleted and the location of the active library (c:\pe\user account name\results\results.mdb). Click 'OK' to proceed.
6. After archiving and deleting the data sets, it is extremely important to re-pack the database. This process enables the database to properly use the space you created after deleting the data sets. Without this last step to pack the database, you still risk experiencing problems with your database. Click the 'Pack' button; another message appears. Click 'OK' to begin the packing and conclude the archiving process. Close Data Manager

When in doubt about a particular issue, consult the software guide or ask the primary operator for assistance before proceeding.

APPENDIX D

Perkin Elmer Elan DRC II / Nexion Inductively Coupled Plasma Mass Spectrometer Operating Procedure

1 General Information

1.1 Scope and Application

The instrument may be used for isotope ratios, isotope dilution, and quantitative analysis. This operating document is not a substitute for training, and unqualified analysts must not attempt to operate this instrument without assistance.

2 Procedure

2.1 Instrument Start-up

- 2.1.1** Fill in the instrument log book. Include your name, the date, and the project number. Also indicate if the instrument performance verification was successful. Performance criteria is listed inside the instrument log book cover.
- 2.1.2** Instrument start-up and shut-down procedures are described thoroughly in the appropriate Elan user's manual. This user manual is located near the instrument.

2.2 Instrument Calibration and Verification

- 2.2.1** Mass calibration is described in the tuning section of the appropriate ICP-MS user's manual. Mass calibration must be checked any time the instrument performance verification fails, anytime changes are made to the electronics, or when resolution for any element needs to be changed.
- 2.2.2** Instrument performance verification must be performed before any analysis. General performance criteria are also described in the appropriate ICP-MS user's manual. If the instrument fails to meet the performance criteria, refer to the tuning and optimization sections in the user's manual.

2.3 To Perform an Analysis

- 2.3.1** The critical parts of the ICP/MS procedure include (1) setting the instrument parameters as necessary to meet the project data collection objectives and (2) data collection and interpretation.
- 2.3.2** The user's manual describes the desired approaches and parameters for creating acquisition methods for isotope dilution, isotope ratios, and quantitative analysis. There are also existing multi-element methods for quantitative analyses that may be modified as necessary to meet the project objectives. Do not overwrite existing files, but save modified versions under a unique name. A useful method for most purposes is 200.8April2007.mth.
- 2.3.3** To perform the analysis, refer to the user's manual, Chapter 4, "Performing Analyses."

2.4 Instrument Maintenance

- 2.4.1** Preventive maintenance is performed once a year.
- 2.4.2** It is the principal operator's responsibility to maintain the instrument at its optimum performance, to renew service contracts, and to arrange for the preventative maintenance performed under the service contracts. It is also the principal operator's responsibility to arrange for upgrades or expanding capabilities on the ICP-MS instruments.
- 2.4.3** In the event that the principal operator is unavailable for instrument questions, refer to the Elan ICP/MS hardware guide also located near the instrument or the instrument help section.

APPENDIX F

Mercury Analysis by Cold Vapor Atomic Absorption Operating Procedure

Scope: This appendix covers the operation of the Nippon RA-3420 mercury analyzer with the RA-3A detector.

Sample Preparation

Mercury vapor generation depends on mercury being in the elemental state. Liquid samples known to contain only elemental mercury may be analyzed as received. Samples which may contain other forms of mercury must be digested prior to analysis. Solids must be pre-digested using aqua regia. High concentrations of mercury may be diluted using 1% nitric acid.

Standard preparation

Two independent sources of mercury standards are required. One source is used for the initial calibration of the instrument, and the second source is used to verify the calibration. The concentration of standards used for calibration will typically be in the range of 0.5 to 10 ug/L.

Prepare a working standard of 0.1 ug/mL in 5% nitric acid.

Calibration standards should be prepared fresh daily.

Calibration Verification Standard:

Analyze an alternate source calibration check standard near the mid-level concentration of the calibration curve immediately following the initial calibration to verify the calibration. If the calibration standards have been digested, the ICV should also be digested.

Basic Operating Instructions for the Nippon RA-3420 Mercury Analyzer

Start-up

- 1) Check that the waste container is not full.
- 2) If necessary, switch all cables from the fluorescence detector back to the atomic absorption detector. Turn on the RA-3A and SCD-1 power switches. (located on the back of each unit) Allow the detector to warm up for 60 to 90 minutes.

- 3) Prepare reagents as follows:

Note: all reagents may be used multiple days except potassium persulfate (prepare fresh weekly) and stannous chloride (prepare fresh daily)

- a) Sulfuric acid, 1:1 (100 mL)
 - b) Nitric acid, 25% v/v (100 mL)
 - c) Potassium permanganate, 5% w/v (100 mL)
 - d) Potassium persulfate, 5% w/v (100 mL)
 - e) Hydroxylamine hydrochloride, 1.2% w/v (500 mL)
 - f) Stannous chloride, 10% w/v in 7% HCl (100 mL)
- 4) Check that the autosampler wash bottle is at least half full of 1% nitric acid and the large rinse reservoir is at least half full of PRO water.
- 5) Turn on the computer. Open the software using the “RA-3420” icon.
- 6) Put reagents in designated reservoirs.
- (Note: To prevent twisting tubing, place cap on jar then turn jar to tighten.)
- 7) In software under Run dropdown, Reagent operation, choose Reagent Filling, and then RUN. This primes all reagents and prepares for proper dispensing.
- 8) Enter standards information in STDS tab and sample information in SAMPLE tab. Each checkbox in the Meas column must be checkmarked in order for the measurement of the sample or standard to take place.
- 9) Place tubes in proper position in tray. The first 20 positions are for standards; the next 100 are for samples.
- 10) Press START.

(Note: AutoStart will first check each position in the entire autosampler before adding any reagents.)

Standby Mode: (If additional analyses are expected within 3 days)

1. When analysis is done, under Run dropdown, Reagent operation, press Reagent Discharge. Only the first step of the discharge process is necessary, and you can then EXIT. This returns any reagent in the tubing to the reservoirs.
2. Turn off SCD-1, RA-3A, and computer. Remember to allow sufficient warm-up time before next analysis.

Cold Shut down

1. When analysis is done, under Run dropdown, Reagent operation, press Reagent Discharge and follow all steps as directed to clean, rinse, and dry tubing.
2. Turn off SCD-1, RA-3A, and computer. Remember to allow sufficient warm-up time before next analysis.

Automated Analysis of Samples using the Nippon RA-3420 Mercury Analyzer

1. Under the File dropdown, Open Full Digestion with Stds.SCD (for digestion plus analysis).
2. To choose a different method, under the Run dropdown choose Mode, then press Open button and choose the method from the list. Check the top "Pretreatment" pick list to be sure it is correct for the desired analysis. (i.e., "with" means with digestion, "without" means without digestion, or "sample only" means digests samples but not standards).
3. Set up standards and sample tables (See Basic Operation Step 8). Place tubes in appropriate autosampler positions.
4. Make sure reagent volumes are sufficient for all measurements to be conducted.
5. Use Run dropdown, Reagent operation, Reagent filling to prime reagent lines.
6. Press START. Following addition of reagents and permanganate color check(s), heating of the samples will begin. The heating portion of the digestion is two hours long followed by a cool-down period of one hour before measurement begins. If measurement continues beyond working hours, be sure to clean reagent lines the following morning.

Exporting Data

To export data as a CSV file, highlight the desired data, use Edit dropdown, Save as Text File, and name file as desired.

APPENDIX G

Mercury Analysis by Cold Vapor Atomic Fluorescence Operating Procedure

Scope: This appendix covers the operation of the Nippon mercury analyzer with the RA-3F detector.

Sample Preparation

Mercury vapor generation depends on mercury being in the elemental state. Liquid samples known to contain only elemental mercury may be analyzed as received. Samples which may contain other forms of mercury must be digested prior to analysis. Solids must be pre-digested using aqua regia. High concentrations of mercury may be diluted using 5% nitric acid.

Standard preparation

Two independent sources of mercury standards are required. One source is used for the initial calibration of the instrument, and the second source is used to verify the calibration. The concentration of standards used for calibration will typically be in the range of 0.25 to 1.0 ug/L for low mode and from 0.25 ug/L to 2.0 ug/L for high mode.

Prepare a working standard of 0.1 ug/mL in 5% nitric acid.

Calibration standards must be prepared fresh daily.

Calibration Verification Standard:

Analyze an alternate source calibration check standard near the mid-level concentration of the calibration curve immediately following the initial calibration to verify the calibration. If the calibration standards have been digested, the ICV should also be digested.

Basic Operating Instructions for the Nippon RA-3420 Mercury Analyzer

Start-up

- 1) Check that the waste container is not full.
- 2) Make sure the sample changer, serial port, and power cord have been switched from the AA detector to the RA-3F. Connect the sample tubing from the SCD-1 to the RA-3F (see Section 4.5.1 of the manual). Turn on the argon. Turn on the RA-3F and SCD-1 power switches. (located on the back of each unit) Allow the detector to warm up for 30 minutes, if analyzing undigested samples.
- 3) Prepare reagents as follows:

Note: all reagents may be used multiple days except potassium persulfate (prepare fresh weekly) and stannous chloride (prepare fresh daily)

- a) Sulfuric acid, 1:1 (100 mL)
 - b) Nitric acid, 25% v/v (100 mL)
 - c) Potassium permanganate, 5% w/v (100 mL)
 - d) Potassium persulfate, 5% w/v (100 mL)
 - e) Hydroxylamine hydrochloride, 1.2% w/v (500 mL)
 - f) Stannous chloride, 10% w/v in 7% HCl (100 mL)
- 4) Check that the autosampler wash bottle is at least half full of 1% nitric acid and the large rinse reservoir is at least half full of PRO water.
 - 5) Turn on the computer. Open the software using the “RA3420” icon. Using the System pulldown, choose Setup then choose AFS from the dropdown on this screen. Using the Run dropdown, choose Mode then check Meas Range (lower left of this screen). Choose either “LOW” or “HIG”.
 - 6) Put reagents in designated reservoirs. (Note: To prevent twisting tubing, place cap on jar then turn jar to tighten.)
 - 7) In the software under Run dropdown, Reagent operation, choose Reagent Filling, and then RUN. This primes all reagents and prepares for proper dispensing.
 - 8) Enter standards information in STDS tab and sample information in SAMPLE tab. Each checkbox in the Meas column must be checkmarked in order for the measurement of the sample or standard to take place.
 - 9) Place tubes in proper position in tray. The first 20 positions are for standards; the next 100 are for samples.
 - 10) Press START. (Note: AutoStart will first check each position in the entire autosampler before adding any reagents.)

Standby Mode: (If additional analyses are expected within 3 days)

1. When analysis is done, under Run dropdown, Reagent operation, press Reagent Discharge. Only the first step of the discharge process is necessary and you can then EXIT. This returns any reagent in the tubing to the reservoirs.
2. Turn off SCD-1, RA-3F, and computer. Remember to allow sufficient warm-up time before next analysis.

Cold Shutdown

1. When analysis is done, under Run dropdown, Reagent operation, press Reagent Discharge and follow all steps as directed to clean, rinse, and dry tubing.
2. Turn off SCD-1, RA-3F, and computer. Remember to allow sufficient warm-up time before next analysis.

Automated Analysis of Samples using the Nippon RA-3420 Mercury Analyzer.

1. Under the File dropdown, open Full Digestion with Stds.SCD (for digestion plus analysis).
2. To choose a different method, under the Run dropdown choose Mode, then press Open button and choose the method from the list. Check the top "Pretreatment" pick list to be sure it is correct for the desired analysis. (i.e., "with" means with digestion, "without" means without digestion, or "sample only" means digests samples but not standards).
3. Set up standards and sample tables (See Basic Operation Step 8). Place tubes in appropriate autosampler positions.
4. Make sure reagent volumes are sufficient for all measurements to be conducted.
5. Use Run dropdown, Reagent operation, Reagent filling to prime reagent lines.
6. Press START. Following addition of reagents and permanganate color check(s), heating of the samples will begin. The heating portion of the digestion is two hours long followed by a cool-down period of one hour before measurement begins. If measurement continues beyond working hours, be sure to clean reagent lines the following morning.

Exporting Data

To export data as a CSV file, highlight the desired data, use Edit dropdown, Save as Text File, and name file as desired.

APPENDIX H

Eltra CS500 Carbon and Sulfur Analyzer Operating Procedure

1 Theory and Application

The Eltra CS500 can be used to measure the total concentration of carbon and sulfur in a wide range of solid and liquid samples. The sample is combusted in a stream of oxygen, which carries any carbon dioxide or sulfur dioxide produced into the detectors. The detectors measure the infrared absorption of the product gases, from which the amount of carbon and sulfur can be determined. The detectors are of the non-dispersive type, using filters to select the appropriate infrared wavelengths for measurement. The NEIC instrument has three measuring channels, one for sulfur and high- and low-range channels for carbon.

The basic Eltra CS-500 measures carbon, including organic and inorganic carbon. NEIC also has the TIC (total inorganic carbon) module from Eltra that makes possible the determination of inorganic carbon. The main types of inorganic carbon are carbonates and bicarbonates. In the TIC module, acid is added to the sample to release carbon dioxide, which is measured using the main instrument detectors. If total carbon and TIC are determined, organic carbon is determined by difference.

2 Safety

- 2.1 The furnace, the sample boats, and the sample insertion rod become very hot - avoid contact.
- 2.2 Some samples, such as oils, combust rapidly and could flashback. Do not stand directly in front of the furnace opening.
- 2.3 Do not exceed the recommended sample sizes. If in doubt, see the manual. Oils should be 50 to 80 mg; coals up to 500 mg, with 200 mg recommended for most solids.

3 Equipment

- 3.1 The Eltra CS-500 consists of two units, an analyzer unit and a furnace. A computer controls the instrument and calculates the results, which can be printed on the attached printer. A balance is connected to the computer, and sample weights can be entered into the computer (F4 or double-clicking on the weight button).
- 3.2 Both the analyzer and the furnace units have a mains switch, a red switch with three positions. For the analyzer, position 0 turns off the power. Position 1 is the standby position, in which the oxygen flow is stopped, but power is applied to the

detectors and the electronics. Position 2 is used to warm up the unit (for two hours) after it has been off. Position 2 is for operation of the unit.

- 3.3** For the furnace unit, position 0 of the mains switch shuts off the mains power. **Position 0 should only be used in an emergency.** The furnace unit should be left at position 1 when the analyzer is not to be used for three days or longer. In position 1, the furnace is unpowered, but the furnace cooling fan is on. The cooling fan will stay on until the furnace has a temperature less than 60 °C. The furnace **MUST** be allowed to cool with the fan and not turned off abruptly, or it will be damaged. In position 2, the furnace itself is powered, and will heat to the set point temperature.
- 3.4** Sample Boats. Samples are placed in ceramic boats. These can be reused, and can be bought from the instrument manufacturer.
- 3.5** TIC module and associated equipment for determining TIC (described in Section 3.4 of the Eltra CS-500 operation manual).

4 Reagents

- 4.1** *Oxygen.* A tank of research-grade oxygen is required, since combustion is done in a stream of pure oxygen.
- 4.2** *Magnesium perchlorate.* Magnesium perchlorate is used in several traps to remove water from the gas stream. A pure grade is required, and it is recommended that it be bought from the instrument manufacturer.
- 4.3** *Sodium hydroxide.* Sodium hydroxide is used to remove carbon dioxide from the gas stream. A pure grade is required, and it is recommended that it be bought from the instrument manufacturer.
- 4.4** *Calibration standards.* Appropriate standards are required for the calibration of the sulfur and carbon measurements. Dextrose (C₆H₁₂O₆) is recommended for a high carbon standard. It is 40.002% carbon. A number of coal standards are available that can be used for sulfur standards.
- 4.5** *Vanadium pentoxide.* Used as a combustion aid for hard to oxidize solids, such as certain steels.
- 4.6** *Alpha Com-Aid, AR427.* A proprietary reagent available from Alpha that is used as a support and combustion aid when analyzing oils and similar liquids.
- 4.7** *Acids for determining TIC.* Acetic acid or phosphoric acid is recommended, as described in Section 3.4 of the Eltra CS-500 operation manual.

5 Startup

- 5.1** Set the analyzer mains switch to position 1 to allow the electronics unit to warm up for two hours.
- 5.2** Check the traps and change the reagents if necessary. See Section 7.4 of the Eltra CS-500 operation manual for the details.
- 5.3** Set the oxygen pressure to 60 psi.
- 5.4** Set the analyzer mains switch to position 2 after the unit has warmed up on position 1 for two hours.
- 5.5** Set the furnace mains switch to position 2.
- 5.6** Put the toggle switch to “set point” and use the potentiometer dial to set the desired temperature. For oils, the recommended temperature is 1300; 60 °C and for coal it is 1350; 60 °C. See Section 3.3 of the Eltra CS-500 operation manual for recommended settings for other types of materials.
- 5.7** Put the toggle switch to “furnace temperature.” The temperature of the furnace can then be read on the display.
- 5.8** Switch on the computer and the printer. The balance is left on. When Windows 98 appears on the screen, double-click with the mouse on PLOTCS, then click the Start button to get the main window. The instrument should now be ready to perform analyses.
- 5.9** By selecting the menu button of the main screen, it is possible to set a number of options. The time and date can be set. Sulfur and carbon channels can be deactivated or selected. The units for the displayed results can be chosen.

6 Shutdown

- 6.1** For short breaks, such as lunch, leave the instrument as when running samples.
- 6.2** When leaving overnight or for up to two days, the analyzer mains should be set to position 1 (standby), and the furnace set to 750 °C (the furnace mains switch is left at position 2). Turn off the oxygen at the tank.
- 6.3** For periods when the instrument will not be used for three days or more, the analyzer mains should be set to position 0, and the furnace mains should be set to position 1 (never position 0), so that the furnace can be cooled down with the cooling fan.
- 6.4** The computer can be turned off. The balance is normally left on.

7 Samples and Sample Preparation

- 7.1** Liquids can be analyzed as received, if they are first mixed well. The maximum sample size for oils and similar materials is 100 mg, with 50 to 80 mg recommended.
- 7.2** Solids should be ground and dried so that a subsample as small as 100 mg can be taken. See the NEIC operating procedure *Subsampling Including Drying and Grinding*, NEICPROC/00-065. Sample sizes for solids should be in the 100 mg to 500 mg range. The best value depends on the carbon and sulfur content. It may be necessary to try several sample sizes before settling on the best values.

8 Analysis Procedure

- 8.1** Place a sample boat on the balance, and press tare on the balance to zero it. Add a sample of the appropriate size to the boat. When the balance has stabilized, press F4 on the computer or double-click with the mouse on the weight button of the main analysis screen. Either of these actions enters the sample weight into the computer.
- 8.2** Place the boat on the shelf in front of the combustion furnace. Double-click on the Start button or press F5 in order to start data collection. Insert the boat with the sample into the oven with the insertion rod, pushing it in gently until the resistance of the boat stop is encountered. Wait until the analysis is completed (the time of analysis can be set from the menu screen). The results appear automatically on the computer monitor.
- 8.3** Some details of the analysis procedure change with sample type, especially for liquid samples. See the manual for these modifications.
- 8.4** The determination of TIC is described in Section 3.4 of the Eltra CS-500 operation manual. In brief, the sample is placed in a small flask with a stir bar. It may be heated if the presence of magnesium carbonate is possible. Acid is added and any evolved carbon dioxide is carried into the analyzer. The latter operates in the same fashion as for total carbon.

9 Calibration

- 9.1** The carbon sulfur analyzer shall be calibrated before every project.
- 9.2** There are two calibration procedures, single and adjust calibration. Single is used when a check sample or other considerations show that calibration is way off. Adjust calibration is used for small changes and updates in the calibration factors. Each of the three channels has its own calibration factor, and each can be independently updated. The calibration zero is automatically set by the

instrument. For very low level measurements it is possible to determine a background blank level. The procedure for this is in the manual.

- 9.3** Single calibration: Calibration is selected with the mouse from the main analysis window. From the next screen the measuring range (sulfur, high or low carbon) for calibration is then selected. Enter the concentration of the standard in the set point area, press enter, click okay, and exit. Run the standard and the new calibration factor will automatically be determined.
- 9.4** Adjust calibration: Analyze the appropriate standard(s) as though they were samples, as described in the analysis procedure section. For the best calibration results, multiple analyses of a standard are recommended. When a consistent set of standards has been analyzed, go the calibration on the menu and select adjust. The results of the standard analyses will be in the results list. Select those results which are to be included in the calculation of the calibration factor. Click the act: area and the average value of the selected results will appear. Enter the true value of the standard in set point, press enter and click okay. A new calibration factor will be calculated. Do the same for the other channels, if necessary, and then exit. The new calibration factors will be automatically stored and used.
- 9.5** Newly calculated calibration factors shall be entered in the logbook and onto the table with the logbook. This will allow monitoring the condition of the instrument.

10 Maintenance

- 10.1** Maintenance is described in Section 7 of the Eltra manual. This manual should be read before attempting any maintenance.
- 10.2** The manual describes how to tell when the traps need to be refilled, and how to refill them. Basically, the trap materials must be replaced before they harden and become stuck in the glass tubes of the traps. The particles in the traps should move freely when the tubes are tapped. Sections 7.2, 7.3, and 7.4 describe trap refilling; 7.5 describes replacing the O-rings which seal the traps.
- 10.3** Cleaning of various filters and parts of the analyzer is described in sections 7.6, 7.7, and 7.8 of the manual.

11 Quality Control

- 11.1** Appropriate blanks shall be analyzed.
- 11.2** At least two samples from every project (with more than one sample), and one out of every ten samples from each project, shall be analyzed in triplicate.
- 11.3** Before and after each group of ten or less samples, an appropriate standard shall be run, in order to verify proper operation of the instrument. The calibration

verification standard shall be independent of the calibration standard, and, if possible, have a matrix similar to the sample.

12 Reporting

- 12.1** The data package with the carbon and/or sulfur results shall contain a narrative of the sample preparation and analysis, and a table with the results. The quality control (QC) results shall be in the results table or a separate table.

13 References

- 13.1** Eltra CS500 Operation Manual.
- 13.2** ASTM Standard E1915-99, *Standard Test Method for Analysis of Metal Bearing Ores and Related Materials by Combustion Infrared Absorption Spectrometry*.
- 13.3** ASTM D 3178-89 (1997), *Standard Test Methods for Carbon and Hydrogen in the Analysis Sample of Coal and Coke*.
- 13.4** ASTM D 5291-96, *Standard Test Methods for Instrumental Determination of Carbon, Hydrogen, and Nitrogen in Petroleum Products and Lubricants*.
- 13.5** ASTM E1019-94e1, *Standard Test Methods for Determination of Carbon, Sulfur, Nitrogen, and Oxygen in Steel and in Iron, Nickel, and Cobalt Alloys*.
- 13.6** ASTM D 5016-98, *Standard Test Method for Sulfur in Ash from Coal, Coke, and Residues from Coal Combustion Using High-Temperature Tube Furnace Combustion Method with Infrared Absorption*.
- 13.7** ASTM D 4239-00, *Standard Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods*.
- 13.8** ASTM D 3177-89 (1997), *Standard Test Methods for Total Sulfur in the Analysis Sample of Coal and Coke*.

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OPERATING PROCEDURE

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Number: NEICPROC/00-073R3

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Revision History

This table shows changes to this controlled document over time. The most recent version is presented in the top row of the table. Previous versions of the document are maintained by the NEIC Document Control Coordinator.

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<p>Scheduled Review</p> <p>NEICPROC/00-073R3, <i>Water Content Determination by Coulometric Karl Fischer Titration</i>, replaces NEICPROC/00-073R2</p> <p>Changes include:</p> <p>Procedure approval by: Linda Johnson, Quality Assurance Representative, Laboratory Branch, Jeff Cahill, Plasma and Characteristics Testing Section Chief, Laboratory Branch.</p> <p>Reworded for clarification.</p> <p>1.5 – Addition of reference – <i>Karl Fischer Titration Determination of Water Chemical Laboratory Practice</i>.</p> <p>2.6 – Addition of second paragraph.</p> <p>2.9 – Revised Quality Control Criteria Table. Added paragraph below table.</p> <p>2.11 – Added first paragraph concerning sample water content results.</p>	<p>February 19, 2014</p>
<p>Quadrennial Review</p> <p>NEICPROC/00-073R2, <i>Water Content Determination by Coulometric Karl Fischer Titration</i>, replaces NEICPROC/00-073R1</p> <p>Changes include:</p> <p>Author – Samantha Dominguez</p> <p>Wording changes for clarification occurred throughout the procedure.</p> <p>1.2 – Deleted first paragraph.</p> <p>Third paragraph addresses sample analyses below 2 percent and uncertainty.</p> <p>1.4 – Additional reference: 1.4.3 - <i>Analytical Method Validation and Instrument Performance Verification</i>.</p> <p>1.5 – Additional documents: 1.5.3 - <i>Personal Protective Equipment</i> and 1.5.4 - <i>Waste Management</i>.</p> <p>1.6 – Corrected numbering.</p> <p>1.6.1 – Addition: last paragraph addresses precautions for using the Sicapent dessicant</p> <p>1.6.3 – Inserted: “Mineral oil from the vaporizer should be disposed in a separate waste container.....”</p> <p>2.1 – Rewritten.</p> <p>2.2 – Removed model numbers from items in 2.2.2, and added 2.2.10, mineral oil and 2.2.11, N₂ carrier gas to the list.</p> <p>2.5 – Included ketones to the revised second paragraph.</p> <p>2.6 – Section title changed from “Sample Introduction” to “Sample Preparation.”</p> <p>Inserted introductory paragraph concerning Sample Preparation.</p> <p>2.6.3 – Removed paragraphs and added statement concerning preparing samples using methanol extraction/dilution.</p> <p>2.7 – Refers to different instruments.</p>	<p>July 14, 2009</p>

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1 General Information

1.1 Purpose

The purpose of this procedure is to describe methodology, equipment, and sample handling practices applicable to the determination of water content in liquid and solid samples.

1.2 Scope/Application

Water content may be important in determining whether the aqueous alcohol solution exclusion contained in the Resource Conservation and Recovery Act (RCRA) regulations for ignitability characterization is applicable. Water content of a liquid can be used to distinguish aqueous solutions from nonaqueous solutions as required by the RCRA regulations for corrosivity characterization by pH measurement. Knowledge of water content is useful in differentiating which samples or phases can be analyzed by other methods that may not be compatible with significant amounts of water, such as infrared spectroscopy.

When samples are composed of multiple phases, the phases must be separated prior to analysis.

Samples with a water content ranging from approximately 2 to 100 percent can be determined during current laboratory analyses. Samples with a water content of less than 2 percent can be determined with additional quality control on an individual project basis. For samples with water content of less than 2 percent, the uncertainty must be determined independently of the normal acceptance criteria stated in this procedure.

Three sample introduction techniques are presented for the determination of water content: direct injection, methanol extraction/dilution, and water vaporization. The most commonly used technique will be methanol extraction/dilution because it covers the widest variety of sample matrices likely to be encountered. However, the approach used will depend on the chemical and physical properties (e.g., viscosity, solubility, and the presence of hydroxides) of the sample, and the analyst will determine which technique is most appropriate.

This procedure contains direction developed solely to provide internal guidance to U.S. Environmental Protection Agency (EPA) National Enforcement Investigations Center (NEIC) employees. The procedure set forth does not create any rights, substantive or procedural, enforceable at law by a party to litigation with the U.S. Environmental Protection Agency or the United States.

1.3 Documentation/Verification

This procedure has been prepared by person(s) deemed technically competent by management based on their knowledge, skills, and abilities. The procedure has been tested and validated in practice and reviewed in print by a subject matter expert. A master copy of this procedure is kept in a central file by the Laboratory Branch Quality Assurance (QA) Representative, along with documentation of the review conducted prior to its issuance.

1.4 Associated NEIC Documents

- *Percent Water Content by Karl Fischer Titration* form, NEICFORM/01-005
- *Safety, Health, and Environmental Management Program – General Information*, NEICMANL/00-001
- *Personal Protective Equipment*, NEICPROC/00-036
- *Waste Management*, NEICPROC/00-076
- *Laboratory Proficiency Testing and Analyst Competency/Performance Evaluations*, NEICPROC/00-050
- *Estimation of Measurement Uncertainty*, NEICPROC/07-004

1.5 References

- “Instruction Manual for Mitsubishi Moisture Meter Model CA-100 or CA-200,” Mitsubishi Chemical Corp., Tokyo, Japan
- “Instruction Manual for Water Vaporizer Model VA-110 or VA-210,” Mitsubishi Chemical Corporation, Tokyo, Japan
- *Analytical Method Validation And Instrument Performance Verification*, C.C. Chan, H. Lam, Y.C. Lee, X. Zhang, John Wiley & Sons 2004, Chapter 14
- *Karl Fischer Titration Determination of Water Chemical Laboratory Practice*, Scholz, Eugen, Springer-Verlag 1984

1.6 Precautions

1.6.1 Safety

This procedure does not purport to address all of the potential safety issues associated with its use. It is the responsibility of the user of this procedure to establish appropriate safety and health practices. Proper safety precautions must always be observed when performing water content determinations. Refer to the NEIC *Safety, Health, and Environmental Management Program* manual, NEICMANL/00-001, for guidelines on safety precautions. These guidelines, however, should only be used to complement the judgment of an experienced professional.

The toxicity or carcinogenicity of each reagent used in this procedure has not been precisely defined; however, each chemical should be treated as a potential health hazard. Exposure to these chemicals should be reduced to the lowest possible level by whatever means available. The laboratory is responsible for maintaining a current awareness file of Occupation Safety and Health Administration (OSHA) regulations regarding the safe handling of the chemicals specified in this procedure. A reference file of safety data sheets (SDSs) is available to all personnel involved in the chemical analysis.

Take care to avoid toxic vapor inhalation or skin contact with corrosive solutions. If chemicals come in contact with the skin or eyes, wash thoroughly with copious

amounts of water. To avoid inhalation of vapors, fill and empty the cell or titration assembly in a working laboratory hood. Once the cell is assembled, solvent vapors are contained because the system is sealed.

Wear protective laboratory clothing, eyewear, and gloves at all times, according to the NEIC *Personal Protective Equipment* operating procedure, NEICPROC/00-036. Not only do the Karl Fischer reagents pose a possible health risk, but the waste samples, because they are of unknown composition, may also.

Precautions for using the Sicapent desiccant used in the carrier gas drying tube for the vaporizer can be found in the vaporizer instruction manual.

1.6.2 Contamination Control

To prevent carry-over of moisture in the syringe, rinse the syringe three times with methanol between samples and twice with sample prior to loading the volume to be analyzed.

Handle only small aliquots of the samples near the water titrator to prevent contamination of the entire sample by the Karl Fischer reagents. Never use the methanol extract prepared for the water determination for other types of analyses due to possible precipitation.

1.6.3 Waste Management

Pour spent Karl Fischer reagents into a waste container and label the container as containing flammable and toxic liquids (e.g., pyridine, methanol, chloroform, carbon tetrachloride, formamide, acetonitrile, and propylene glycol).

Store the sample aliquots and the methanol extracts until the samples have been further characterized by other analyses. The sample aliquots and the methanol extracts shall then be given to the principal analytical chemist (PAC), who will dispose of them according to the NEIC *Waste Management* operating procedure, NEICPROC/00-076.

Dispose of mineral oil from the vaporizer in a separate waste container labeled "for used mineral oil only."

1.6.4 Specific Precautions

Seal the Karl Fischer reagent bottles with parafilm after each use and store them in a refrigerator to prolong shelf life. The reagents may be put into the titration cell directly from the refrigerator but should be allowed to equilibrate to room temperature prior to analysis.

Reagent stability is unpredictable, and reagents can degrade during an analytical batch depending on the amount of water present in the samples. For this reason, the water standards and methanol blanks must be analyzed at the beginning, during, and at the end of the batch to ensure the reagents are not depleted.

When injecting the sample, the use of a syringe with a long needle is highly recommended. The sample should be injected slowly, and as close to the surface of the reagent as possible, to prevent splashing onto the side of the titration cell.

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For samples with high water content, iodine may be liberated rapidly and a bubble may form under the platinum anode net, which will greatly slow the rate of titration. Gently tilt the entire titration cell to remove the bubble.

2 Methodology

2.1 Summary of Method

Electrolytic oxidation produces iodine from an iodide ion solution at the platinum anode net as shown below:



The second stage of the reaction forms an intermediate when reacted with sulfur dioxide, an alcohol (CH₃OH), and a base (RN), which is usually pyridine or imidazole. Then, the intermediate is used to react directly with the iodine and additional base to quantitate the amount of water present in the sample, as shown below:



Most commercially available instruments use a bivolametric method to detect the endpoint of the titration. A pair of platinum rods several millimeters apart on the detector electrode is immersed in the anode solution. A small constant current is automatically applied between the platinum rods. When water is introduced into the titration cell, it reacts with and consumes the iodine generated concurrently by the anode. As the water is consumed, the endpoint is reached. The excess iodine increases the conductivity in the anode solution. The detection electrode then reduces the voltage (across the rods) in order to maintain the small constant current. Once the current drops below a certain value, usually the background value, the endpoint of the titration is signaled by the instrument.

The current used for the iodine generation during the titration is directly proportional to the amount of water consumed, according to Faraday's law of electrolysis. Since there is a 1:1 molar ratio of water to iodine, every 10.71 coulombs used for the titration is equivalent to 1 milligram (mg) of water. Therefore, the total amount of water titrated can be calculated from this relationship by using the total amount of current used during the titration. Most instruments automatically convert the coulombs used into micrograms (µg) of water. Furthermore, no standardization of the reagents is needed since the coulometric titration is considered an absolute technique.

2.2 Apparatus, Materials, Chemicals

The titration cell solution is an anhydrous reagent composed of sulfur dioxide, pyridine, iodide, and usually methanol, formamide, methyl cellosolve, or mixtures thereof. Variants of the common reagents may also use various amounts of propylene glycol, chloroform, carbon tetrachloride, and acetonitrile to stabilize the solutions or increase reaction rates.

- **Coulometric water titrator (moisture meter)** – An automatic coulometric Karl Fischer titration system with amperometric, potentiometric, or potential difference end-point detection. The system consists of coulometric and end-point detector electronics, a titration cell, and electrode assemblies (moisture meter CA-100 or CA-200).

See the instrument instruction manual(s) for the proper set-up, cell assembly, operation, cleaning, and troubleshooting procedures.

- **Water vaporizer unit** – Vaporizes the moisture in a sample injected into mineral oil and introduces the moisture into the Mitsubishi moisture meter.

See the instrument instruction manual(s) for the proper set up, vaporizer assembly, operation, cleaning, and troubleshooting procedures (vaporizer unit VA-110 or VA-210).

- **Syringes** – 100 microliters (μL) recommended to use 4½ inch gas-tight syringe
- **Analytical balance to 0.1 mg place**
- **Teflon-lined screw-cap glass vials** – 20 milliliters (mL)
- **Coulometric cell solutions commonly used:**
 - Anode (titration cell) solution – Main ingredients consisting of-propylene carbonate, diethylene glycol monoethyl ether, 4-dimethylaminopyridine, sulfur dioxide, and iodine (typically Mitsubishi Aquamicon AKX)
 - Cathode solution – Main ingredients consisting of methanol, ethandiol, and choline chloride (typically Mitsubishi Aquamicon CXU)
- **Drying tube filler for titration cell** – blue indicating silica gel
- **Drying tube filler for vaporizer carrier gas** – Sicapent (contains phosphorus pentachloride)
- **Methanol** – absolute, anhydrous, >99.8% and contains <0.01% water
- **Water** – polished reverse osmosis (PRO) water
- **Mineral oil** – for vaporizer unit
- **N₂ carrier gas** – for vaporizer unit

2.3 Personnel Responsibilities/Training

This method is recommended for use by experienced analysts or under the supervision of such qualified persons. Users of this procedure must undergo training and pass a competency evaluation before being considered fully qualified to independently use this procedure in case work.

2.4 Sample Collection, Preservation, and Storage

Samples shall be prepared and stored in small, tightly-sealed containers in order to prevent changes in volume or water content. Storage in 20-mL glass vials with Teflon-lined screw caps is highly recommended.

If samples are refrigerated, they shall be brought to room temperature prior to analysis.

2.5 Interferences

Hydroxide ion will titrate as water when directly injected into the titration cell. When this is a problem, use the vaporizer module, which will eliminate the hydroxide

interference. The heated sample will evolve water, which is carried to the titration cell, while the hydroxide remains in the vaporizer. Refer to the instruction manual for the proper use of the vaporizer module.

Ketones and aldehydes can interfere with some Karl Fischer reagent systems. The modified reagent, AKX, allows titration of water in the presence of ketones and aldehydes. Sample composition information may indicate the need for additional analysis. If ketones, aldehydes, or strong oxidizers are known or suspected in the samples, the water vaporization method can be used for confirmation.

2.6 Sample Preparation

The most common source of error is the introduction of atmospheric moisture or the loss of sample moisture during sample preparation and handling. Samples should be mixed thoroughly just prior to subsampling. Methanol blanks, water standards, and samples should all be prepared concurrently with the same bottle of methanol. Subsampling should be quick and efficient, and the lids for the 20-mL Teflon-lined screw-cap vials should be screwed on tightly after sample transfer is complete. For extremely volatile samples, septa cap vials may be necessary.

During sample preparation, immediately document the sub-sample weights on the NEIC *Percent Water by Karl Fischer Titration* bench sheet, NEICFORM/01-005, or in a laboratory notebook.

Samples and standards should be analyzed as soon as possible after preparation. If delays are anticipated, use parafilm to seal the containers, and analyze within 24 hours of their preparation.

2.6.1 Methanol Extraction/Dilution

The methanol must be checked for water content prior to use by injecting 100 μL into the titration cell. If the water content is greater than 50 μg , obtain methanol from a different source (i.e., open a fresh bottle). Wrap the methanol bottle with parafilm after use.

Accurately weigh and record approximately 500 mg of sample into a tared 20-mL vial and add 9.5 mL of methanol for a theoretical total volume of 10 mL.

Cap the vial, shake for approximately 2 minutes, and let settle.

Prepare any quality control (QC) standards as specified in Section 2.9.

Load 100 μL of the methanol extract into the syringe. Avoid any solid material that may have settled to the bottom of the vial.

Proceed to Section 2.8.

2.6.2 Direct Injection (Applicable only to non-viscous liquids)

Insert the needle from a 10- μL syringe into a small piece of silicone rubber (alternatively, a small septum from a gas chromatograph [GC] inlet or any other similar material capable of plugging the end of the syringe needle).

Using an analytical balance, tare the syringe and the plug and record the weight to within 0.1 mg.

Remove the plug, load 5 µL of sample into the syringe, and replace the plug.

Weigh the loaded syringe to within 0.1 mg. Record the sample weight in milligrams.

Prepare any QC standards as specified in Section 2.9.

Proceed to Section 2.8.

2.6.3 Water Vaporization

Prepare samples using the methanol extraction/dilution (Section 2.6.1) or direct injection (Section 2.6.2) methods.

Proceed to Section 2.8.

2.7 Instrument Conditions

Although the general theory of operation of various instruments is similar, this procedure is specifically written for the Mitsubishi Chemical Corporation Moisture Meter model CA-100 or CA-200 and the VA-110 or CA-210 Water Vaporizer unit, as used at NEIC. Refer to the instruction manual(s).

2.7.1 Instrument Conditions for Methanol Extractions/Dilutions

Assemble the titration cell, the meter, and the cabling using the instrument manual for guidance. Use a conservative amount of grease on the ground-glass joints.

Fill the titration cell and the cathode cell using the proper reagents. Check the silica gel in the drying tubes and replace if necessary. Place a magnetic stir bar in the titration cell.

The magnetic stirrer starts automatically when the main instrument power is switched on; the power switch is located on the lower right front side of the meter. The stir rate can be adjusted using the knob on the front of the titration cell unit. The stir rate should be sufficient to ensure mixing without causing solution to splash on the side wall of the titration cell (a setting of approximately 2-3 on the knob).

The following table includes the parameter settings needed in the instrument file for methanol extractions/dilutions.

File 01:Default Settings		
Parameter Name	Value	Description
End Sense	0.1 µg/s	Default setting
Print Form	1	Shortest print form
Calc. Form	0	Displays & prints H ₂ O µg only

2.7.2 Instrument Conditions for Water Vaporizer

Assemble the titration cell, the meter, the cabling, and the vaporizer module using the vaporizer instruction manual for proper assembly and operation (Chapter 2, "Installation and Assembling"). Use a conservative amount of grease on the

ground-glass joints. Due to problems with leaking, take extreme care when setting up the water vaporizer. Results tend to be more sensitive and injections tend to be more challenging than with the moisture meter; therefore, each analyst should first demonstrate he/she can meet the quality requirements before using the system for project work.

Fill the titration cell and the cathode cell using the proper reagents. Fill the vaporizer cell with 20 mL of mineral oil. Use the sample injection port on the vaporizer in place of the sample injection port on the titration cell. Refresh the carrier gas drying tube and titration cell drying tubes with the appropriate desiccating agents. Set the moisture meter dip switches for multi mode use (page 5-2, vaporizer instruction manual). Place a magnetic stir bar in the titration cell. Set the flow rate of nitrogen carrier gas to the suggested setting of 200 milliliters per minute (mL/min) (range 200 - 300 mL/min). Check each connecting joint for leaks. Turn the POWER switch to ON and adjust the vaporizer temperature to 150 degrees Celsius (°C) (range 70 – 200 °C).

The magnetic stirrer starts automatically when the main instrument power is switched on; the power switch is located on the lower right front side of the meter. The stir rate can be adjusted using the knob on the front of the titration cell unit. The stir rate should be sufficient to ensure mixing without causing solution to splash on the side wall of the titration cell (a setting of approximately 2-3 on the knob).

The following table includes the parameter settings needed in the instrument file for water vaporizer analysis:

File 02:Vapor Parameter Settings		
Parameter Name	Value	Description
Delay	2 min	Time for sample to fully enter reaction cell
End Sense	0.1 µg/s	Default setting
Print Form	1	Shortest print form
Calc. Form	0	Displays & prints H ₂ O µg only
VA Select	2	VA – 110 or 210
VA Temp	150 °C	70 – 200 °C range

The nitrogen carrier gas should be manually adjusted on the regulator to 200 mL/min.

2.8 Procedure

The analyst must be familiar with the general operating procedure of the coulometric titration meter (see instruction manuals) and with the quality control requirements presented in Section 2.9 of this operating procedure.

Coulometric Titration Procedure:

Press the <TITRATION> key. The system will then titrate any atmospheric water which may have been absorbed into the reagents during the filling and assembly process. When the three beeps sound, “Ready” and “Stable” should be displayed. “Ready” indicates that the background is less than 0.1 µg water per second. The system is now ready for sample introduction.

NOTE: On occasion, with new bottles of reagent, not enough water has been absorbed to start the titration. The only way to clear the instrument and start the atmospheric titration is to inject a small amount of the water standard.

Select a file for the technique being used by pressing the <PARAMETER/CHARACTER> key and using the arrow keys and <ENTER> to finalize the entry. Press the <ESCAPE> key to return to the titration screen. “File 01:Default” is used for methanol extractions/dilutions or direct injections only and will always be pulled up automatically as the default file. “File 02:Vapor” is used for methanol extractions/dilutions or direct injections using the vaporizer module.

If desired, data entry for identification of a standard, blank, or sample can be made.

The sample information can only be entered before or during its corresponding sample analysis. Press the <SAMPLE> key to input the sample name and measurement information. Press the <PARAMETER/CHARACTER> key to move to character input mode and input the name by using the arrow keys, the <CLEAR> key, and <ENTER> key to finalize the entry for each line. The sample name is limited to 9 characters. The measurement number (no.) starts at 1 and automatically advances with each sample analysis, but can also be manually changed. Press the <ESCAPE> key to return to the titration screen.

Insert the loaded syringe through the titration cell sample injection port septum (or the vaporizer cell sample injection port septum if using the vaporizer) and press the <START/STOP> key on the titrator keyboard. The message “ADD SAMPLE” will appear on the display. Inject the sample from the syringe and remove the syringe from the sample injection port. The titration will begin automatically.

If using the direct injection technique, reweigh the empty syringe and the plug to determine the actual weight of sample injected and record this weight.

Thoroughly rinse the syringe before use on the next sample.

At the endpoint of the titration, three beeps sound, and the result in µg of water is both displayed on the instrument and printed out. Record the water amount, in µg, from the print out to the nearest 0.1 µg on the project bench sheet.

The instrument is ready for the next sample analysis.

2.9 Quality Control

Before performing any analyses, the analyst must demonstrate the ability to generate acceptably precise and unbiased data with this procedure by analyzing an unknown PRO water sample prepared by the QA Representative or a qualified analyst. QC requirements are based upon a batch of ten or less samples of similar chemical composition and matrix by visual assessment.

A high (100%) PRO water standard shall be analyzed daily throughout the sample batch to ensure proper instrument operation. At least three injections of 100 μ L of each of the water standards prepared by methanol extraction/dilution should be made for each batch of ten or less samples.

To prepare a high (100%) PRO water standard, weigh and record 500 mg of PRO water in a 10-mL volumetric flask and fill to the line with dry methanol. To prepare a low (2%) water standard, weigh and record 10 mg of PRO water in a 10-mL volumetric flask and fill to the line with dry methanol. To calculate the water content sample weight, add 490 mg to the weight of the PRO water recorded. (Example: 10.1 mg PRO water + 490 mg = 500.1 mg sample weight for the low water standard)

When using the methanol extraction/dilution technique, at least three 100 μ L injections of the methanol used for sample extraction/dilution should be analyzed throughout the sample batch. The average micrograms of water found in the methanol blanks must be subtracted from the sample results.

Triplicate samples and a spiked sample must be analyzed throughout each batch.

For the methanol extraction/dilution, use a spike of approximately 250 mg of PRO water and a 500 mg sample weight for a total weight of 750 mg. Record the exact weight of the spike.

Quality Control Criteria

High water standard recovery (methanol extractions/dilutions)	95-105% of known value
High water standard recovery (water vaporizer)	95-105% of known value
Triplicate samples	$\leq 5\%$ relative standard deviation
Spiked sample recovery	90-110% of known value

If the results are within the above criteria, the uncertainty for the batch is calculated from the high water standard recovery result, based on a standard deviation of a uniform distribution ($\delta = a/\sqrt{3}$; where $a = 5\%$). When rounded, the batch uncertainty is 3%.

If results are outside the above stated criteria, additional sample replicates and/or a justification are needed and the uncertainty must be determined independently of the above acceptance criteria.

2.10 Calculating and Reporting Results

Report sample results as blank corrected weight percent water.

Calculate weight percent water in a sample according to the equation:

$$\frac{\text{Water Content in } \mu\text{g} - \text{Average Blank value in } \mu\text{g}}{\text{Sample Weight in mg}} \times 10 = \% \text{ Water}$$

The *Water Content by Karl Fischer Titration* bench sheet, NEICFORM/01-005, provides spaces to record analysis results for water standards, methanol blanks, and samples. The equations for weight percent water spike recovery calculations are also provided.

2.11 Organizing the Data

The sample water content results from the CA-200 moisture meter can be saved and exported as a comma separated value (CSV) file or as a Microsoft® Excel spreadsheet.

All analysis records (bench sheets, logbook pages, instrument printout, etc.) must include the project code, analyst initials, and the date on all pages. Assemble the data in a folder labeled with the project code and any other pertinent information for the data package review.

2.12 Data Review and Documentation

The data package must be reviewed by a qualified reviewer to ensure that it is complete, that calculations have been performed properly, and that the data quality objectives have been met. Document the data review by filling out a data review sheet.

Retired 04/30/2020

U.S. Environmental Protection Agency
Office of Enforcement and Compliance Assurance
Office of Criminal Enforcement, Forensics, and Training

National Enforcement Investigations Center
Denver, Colorado

OPERATING PROCEDURE

Title: **Setaflash Method for Determining Ignitability of Liquids**

Effective Date: **December 11, 2014**

Number: **NEICPROC/06-001R2**

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Revision History

This table shows changes to this controlled document over time. The most recent version is presented in the top row of the table. Previous versions of the document are maintained by the NEIC Document Control Coordinator.

History	Effective Date
Periodic Review NEICPROC/06-001R2, <i>Setaflash Method for Determining Ignitability of Liquids</i> , replaces NEICPROC/06-001R1 This revision reflects the following changes: Author: Samantha Dominguez General revision of text by the flash point analysts' workgroup. Addition of an appendix with supplemental information.	December 11, 2014
Quadrennial Review NEICPROC/06-001R1 <i>Setaflash Method for Determining Ignitability of Liquids</i> replaces NEICPROC/06-001 Changes to the procedure: General – Rewording for clarification. Section 1.1. Purpose – Provided detail of purpose Section 1.2 – Rewritten for clarification Section 1.5. Associated NEIC Documents – <ul style="list-style-type: none">Deleted procedure, <i>Thermometer Calibration</i>, which was permanently retired.Added <i>Proficiency Testing and Technical Performance Assessment for the Laboratory Branch</i> Section 1.7.4. Specific Precautions – Addition precautions Section 2.1. Summary of Method – Deleted third paragraph concerning “If a sample ignites below 60 °C...” Section 10. Calculating and Reporting Results – Deleted the third paragraph concerning the preliminary flash point results determined at 5 °C increments. Figure 1, Flow Chart RCRA Ignitability Characterization for Liquid Wastes , has been deleted.	July 15, 2010
NEICPROC/06-001, <i>Setaflash Method for Determining Ignitability of Liquids</i> , original issue	January 31, 2006

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1 General Information

1.1 Purpose

40 Code of Federal Regulations (CFR) §261.21(a)(1) provides two ASTM¹ methods for determining the characteristic of ignitability of liquids. This procedure describes the implementation of one of these methods, “Standard Test Methods for Flash Point of Liquids by Setaflash Closed Tester,” ASTM Method D3278-78, at the U.S. Environmental Protection Agency (EPA) National Enforcement Investigations Center (NEIC) laboratory.

1.2 Scope/Application

This procedure is used for determining the flash point of all liquid samples and liquid phases of samples. For the determination of the characteristic of ignitability, the sample or phase must be a liquid at ambient temperatures and pressures. Phases may be obtained from the original sample using basic laboratory techniques such as decanting and centrifuging. See the operating procedure *Physical Description/Phase Separation*, NEICPROC/00-045, for additional guidance. This procedure incorporates ASTM D3278-78 to determine if a liquid has a corrected flash point below 60 degrees Celsius (°C). The tester specified in this method can measure from -30 to +60 °C.

Test specimens with viscosities greater than 150 stokes at 25 °C² require certain modifications to the procedure, as given in Annex A4 of ASTM D3278-78.

The Setaflash method includes a barometric pressure correction to account for changes in vapor phase concentrations as ambient pressure varies from sea level.

This procedure contains direction developed solely to provide internal guidance to NEIC employees. The procedure set forth does not create any rights, substantive or procedural, enforceable at law by a party to litigation with the U.S. Environmental Protection Agency or the United States.

1.3 Documentation/Verification

The procedure has been tested and validated in practice and reviewed in print by a subject matter expert. A master copy of this procedure is kept in a central file by the quality assurance (QA) staff, along with the review conducted before its issuance.

1.4 Definitions

Flash Point – The lowest temperature, corrected to a pressure of 760 millimeters of mercury (mm Hg), at which the application of an ignition source causes the vapor of the liquid to ignite under specified conditions of the test.

Closed-Cup Flash Point – A flash point which is determined using an apparatus that contains the vapor of a sample aliquot, except during the specified applications of a test flame. The Setaflash and Pensky-Martens methods employ closed-cup equipment.

¹ ASTM International, originally known as The American Society for Testing and Materials.

² A viscosity standard is maintained for visual comparison. If required, NEIC has equipment to enable the quantification of sample viscosity.

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Flash – The uniform propagation of a flame over the surface of a liquid.

“Halo” – Flame enlargement or luminescence at the surface of the test flame, sometimes mistaken for a true flash.

1.5 Associated NEIC Documents

Physical Description/Phase Separation, NEICPROC/00-045

Organic Compound Analysis, NEICPROC/00-049

Volatile Organic Analysis by Gas Chromatography/Mass Spectrometry,
NEICPROC/00-002

Qualitative Identification by Infrared Spectroscopy, NEICPROC/00-046

Water Content Determination by Coulometric Karl Fischer Titration,
NEICPROC/00-073

Laboratory Proficiency Testing and Analyst Competency/Performance Evaluations,
NEICPROC/00-050

Estimation of Measurement Uncertainty, NEICPROC/07-004

Waste Management, NEICPROC/00-076

Laboratory Data and Data Package Review, NEICPROC/00-066

Flash Point (Bench Sheet), NEICFORM/03-013

Flash Point Analysis Summary template

Flash Point Analysis Summary example

Flash Point Instructions for LIMS

(can also be found at L:\NEIC User Guide\PDF\Flashpoint.pdf)

1.6 References

Stanhope-Seta Setaflash instrument manuals

Characteristic of Ignitability, 40 CFR § 261.21

Background Document: Resource Conservation and Recovery Act, Subtitle C – Identification and Listing of Hazardous Waste, § 261.21 – Characteristic of Ignitability, U. S. Environmental Protection Agency, Office of Solid Waste, May 2, 1980

Standard Test Methods for Flash Point of Liquids by Setaflash Closed Tester, ASTM Standard Method D3278-78

NFPA 325: Guide to Fire Hazard Properties of Flammable Liquids, Gases, and Volatile Solids, 1994 Edition, National Fire Protection Association, Quincy, MA

EPA RO (RCRA On-line, formerly FAXBACK) 12034, June 28, 1981, Office of Water and Waste Management, Definition of Liquid Waste

1.7 Precautions

1.7.1 Safety

This document does not purport to address all of the safety issues associated with its use. Always observe proper safety precautions when performing ignitability determinations. It is the responsibility of the analyst to establish appropriate safety and health practices. Refer to the NEIC Safety, Health and Environmental Management site on the NEIC Link for guidelines on safety precautions. These guidelines and information, however, should only be used to complement the judgment of an experienced professional.

Handle each chemical or sample as if it were a potential health hazard and minimize exposure to these substances through good laboratory practices, including use of eye and skin protection. Avoid breathing sample and other solvent vapors by using adequate ventilation.

This procedure involves the use of flammable compounds and an ignition source. Observe acceptable fire safety practices. Locate and understand the use of a nearby fire extinguisher.

1.7.2 Contamination Control

Make sure that the apparatus is adequately cleaned between different samples and that solvents used to clean the apparatus are adequately removed if there is a danger that they could affect flash point results in subsequent testing.

Only one sample shall be open at any one time; this decreases the probability of cross-contamination of other samples.

1.7.3 Waste Management

Make every effort to minimize waste generated during the use of this procedure. The correct procedures for disposing of the wastes generated are given in NEIC's operating procedure *Waste Management*, NEICPROC/00-076.

1.7.4 Specific Precautions

Erroneously high flash points may be obtained if precautions are not taken to avoid the loss of volatile material. Guard against such losses during sample separation or preparation with steps such as minimizing duration of the open container. Residual solvent from apparatus cleaning may cause erroneous determinations. Take care to remove such residuals.

Method A – Flash/No Flash, of ASTM D3278-78, may be used for affirming the positive for flash point. However, use care in concluding the negative for flash point because of the risk of exceeding the upper flammable limit (UFL) or upper explosive limit (UEL), or generating vapor concentrations of other constituents that may suppress ignition.

2 Methodology

2.1 Summary of Method

Liquid samples/phases are tested for the characteristic of ignitability. The sample, as necessary, is phase-separated and the liquid phase(s) are tested. Using Method B – Finite Flash Point, of ASTM D3278-78, an initial assessment of flash point is conducted using a 5 °C/minute (min) temperature intervals. If a flash occurs, the finite flash point is determined using a 0.5 °C/min ramp.

A Setaflash 72000-0, “Series 7 Plus” flash point tester is currently used, which conforms to the essential equipment specifications given in ASTM D3278-78. A manual Setaflash tester also may be used, following the instructions given in ASTM D3278-78. The requirement for visual observation and introduction of the test flame at 0.5 °C/min intervals can be maintained using the 72000-0 tester. A barometer located in the same laboratory where testing occurs is used to measure ambient air pressure. A pressure correction is calculated and applied to the raw flash point results.

2.2 Apparatus, Materials, Chemicals

- p-xylene reference standard (Flash Point Check Fluid, flash point = 27.2 °C ± 0.8 °C)
- Rinsing solvents: as needed, reagent-grade acetone, hexane, methylene chloride, and others
- Laboratory-grade tissues (“Kimwipes”) for cleaning apparatus
- Setaflash 72000-0, “Series 7 Plus” flash point tester or other Setaflash (“small scale tester”) meeting the fundamental design specification given in ASTM D3278-78
- Thermometer conforming to ASTM D3278-78 specifications
- Disposable Luer-Lok® syringes capable of accurately measuring 2 +/- 0.1 milliliters (mL) at 25 °C
- Disposable bottle of propane
- Aneroid barometer

2.3 Personnel Responsibilities/Training

This method is recommended for use by experienced analysts or under the supervision of such qualified persons. Analysts must pass a competency evaluation before being considered fully qualified to independently use this procedure in project work.

2.4 Sample Collection, Preservation, and Handling

Glass containers with Teflon-lined lids and just enough head space (approximately 5 – 10 percent) to allow for some gas expansion are generally considered adequate. If stored for long periods, samples should be protected from light.

2.5 Interferences

- Hydrogen can be produced when very high pH or very low pH samples are tested in an aluminum cup, which can lead to a false positive flash. NEIC uses stainless steel cups to avoid this interference.
- Air currents are indicated by disturbances of the test flame. Currents incurred while inserting the test flame may lower head-space vapor concentration or change the test flame configuration which may cause false negative results. NEIC has constructed a draft shield that mitigates this problem.
- Low ambient light is recommended to assist in the visual detection of the flash since some volatile organic compounds, such as methanol or isopropanol, may produce a nearly colorless flame. However, lighting should be appropriate for the safety of laboratory personnel.
- Compounds that form surface coatings may tend to obscure flash point results. Under these circumstances, the Pensky-Martens method may be preferable in determining the flash point.
- Sample components may interact at the periphery of the test flame, creating a “halo” effect. This effect must not be confused with a true flash, which propagates over the surface of the sample inside the cup.
- Halogenated compounds tend to suppress the flash points of other organic compounds. In the presence of a halogenated compound, the flash may appear green in color rather than blue as described in ASTM D3278-78. In samples with very high (percent level) concentrations of halogenated compounds, the vapors above the sample may burn during the test. This burning must not be confused with a true flash point.

2.6 Sample Preparation

The test is performed on liquid phases. Samples that have multiple phases must be phase-separated, using the operating procedure *Physical Description/Phase Separation*, NEICPROC/00-045, unless there is a documented project-specific reason to analyze the sample intact.

2.7 Instrument Conditions

Instrument conditions are determined by the requirements in the applicable portion of ASTM D3278-78. Refer to the instrument manual for directions on inputting (or deleting) barometric correction, temperature settings, ramp settings, timing settings, and sample identification.

2.8 Procedure

ASTM D3278-78 is composed of two methods: Method A – Flash/No Flash, and Method B – Finite Flash Point. NEIC uses Method B whenever possible because it may provide more information about the sample, and it avoids the potential of a false negative result if the UEL is exceeded in a Flash/No Flash test.

Method B – Finite Flash Point, is sub-divided for determining flash points in two temperature ranges: ambient to 110 °C and 0 °C to ambient. For purposes of the characteristic of ignitability, NEIC ends the ambient test at 60 °C (pressure corrected) because 60 °C is the regulatory limit. NEIC takes advantage of the current instrument capability and may extend the sub-ambient test to as low as -30 °C when necessitated by a sample.

2.8.1 Preparation for Analysis

2.8.1.1 Thermometer

NEIC uses National Institute of Standards and Technology (NIST)-certified mercury thermometers. The thermometers are recertified on an 18-month schedule. When inserting the thermometer into the instrument, ensure a sufficient amount of heat transfer paste is used. Once the thermometer function is verified (as discussed below) using the p-xylene standard, it should not be necessary to reapply heat transfer paste for an extended period of time.

2.8.1.2 Flash Point Tester

Information may be obtained from the manufacturer's operating and maintenance instructions on the use, care, and servicing of the tester.

For the Series 7 Plus instrument, ensure the water chiller (set to 4 °C) is on and the water is circulating. If the instrument temperature does not decrease at a rapid rate, clean the Peltier cooler, or ask the primary operator for assistance.

When using the Series 7 Plus tester, verify that the digital display agrees with the thermometer reading at the beginning of each day. Record the verification. If the digital display and the thermometer do not agree, contact the primary instrument operator for assistance. The traditional (old model) Setaflash tester's temperature is read directly from the required mercury thermometer.

Set the initial temperature of the apparatus for the analysis, following the manufacturer's instructions.

Inspect the inside of the test cup, lid, injection port, and shutter mechanism for cleanliness. Clean as necessary before conducting the test.

2.8.1.3 Barometer

Ambient air pressure measurement is required for this procedure. NEIC uses an aneroid barometer (Wallace and Tiernan) in the laboratory that reads directly in millimeters of mercury. Record the pressure after each test.

2.8.1.4 p-xylene Checks

ASTM D3278-78 (section 7.5) requires duplicate tests of the Flash Point Check Fluid (p-xylene) reference standard (average must be 27.2 ± 0.8 °C) to verify the accuracy of the tester. NEIC recommends triplicate tests of

the p-xylene at the beginning of each analysis day and a single test at the end of each analysis day.

2.8.1.5 Test Flame and Gas Supply

The gas valve purchased from the instrument vendor should be used for the first stage of gas flow control on the propane bottle. The valve has been set and does not require any adjustment, even after changing bottles. Flip the toggle to start the flow of gas. The gas flow from the bottle may take a couple of minutes to reach the instrument. Use the fine adjustment valve on the instrument if necessary to adjust the pilot flame and the test flame to an acceptable size. Use the thumb screw adjustment between the pilot flame and the test flame for the final adjustment of the test flame. A gauge stamped into the cover of the instrument illustrates the appropriate size. At the end of testing, turn off the toggle valve. While introducing sample into the cup and after the test, extinguish the flame to avoid an accident.

2.8.2 Testing Samples

Select a temperature range to test the sample(s). Background information from the project may be helpful for selecting the starting range. The Series 7 Plus instrument will span a 40 °C temperature range, in the ramp mode, before automatically resetting to the start temperature. Suggested test ranges are -20 °C to 20 °C (sub-ambient range) and 20 °C to 60 °C (ambient range).

- Set the start temperature.
- Set the ramp rate to 5 °C/minute.
- Name the sample being tested using the appropriate keys (up to 12 numeric characters).
- Introduce a 2-mL sample aliquot into the tester using a disposable syringe.
- Start the run and manually test for a flash every minute until a flash has been detected, or the end of the range has been reached.

When using the Series 7 Plus instrument, print the results. If the end of the range has been reached without detection of a flash, hit the print button immediately following the last flash test in order to capture the final test reading, because the information will be lost when the tester automatically resets.

- If the ambient range was selected and a flash was detected on the first test, select the sub-ambient range and start the test again.
- Record the test information on the bench sheet (hard copy or electronic), including the barometric pressure reading.
- Clean the sample cup.
- If a flash was detected in the range, set the start temperature to 5 °C below the temperature at which the flash was observed.

- Set the ramp rate to 0.5 °C/minute.
- Adjust the sample name, if desired.
- Introduce another fresh 2-mL aliquot into the tester.
- Start the run and manually test for a flash every minute until a flash has been detected.
- Print and record the results as above.
- If a flash was detected on the first test using the 0.5 °C/minute ramp, reset the start temperature 5 °C lower than the previous start temperature.
- Once a finite flash point has been determined, repeat the 0.5 °C/minute test until at least two sequential test results are within 1 °C. For statistical purposes, obtaining three sequential results within 1 °C is recommended, if sufficient sample is available.
- Always use a fresh sample aliquot before starting a new test. Note any peculiar behavior of the samples under test conditions.
- If the results are not within the described parameters or other issues are encountered, see *Appendix A* or the primary operator.

2.9 Quality Control

The Setaflash tester performance is based upon the integrity of the apparatus and is verified through the use of the p-xylene reference standard. ASTM D3278-78, paragraph 7.5, states that the mean of the duplicate results for p-xylene should be 27.2 +/- 0.8 °C. If the p-xylene does not flash at the expected temperature, check the integrity of the heat transfer paste or contact the primary operator for assistance.

The primary means for assessing accuracy given in ASTM D3278-78 is the p-xylene check.

An example of measurement uncertainty for flash point analysis would be the ± 1 °C difference between successive values. Refer to the operating procedure *Estimation of Measurement Uncertainty*, NEICPROC/07-004.

New analysts should be trained by experienced analysts as designated by Laboratory Branch management.

2.10 Calculating and Reporting Results

Refer to the *Flash Point Instructions for the LIMS* (section 1.5).

Record the appropriate analysis information on the bench sheet (hard copy or electronic).

The corrected flash point of the individual determinations is calculated using the following formula (given in section 13 of ASTM D3278-78):

$$C = C^{\circ} + 0.03 (760-P)$$

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Where:

C° = the temperature in degrees Celsius at which the flash was observed

P = the laboratory barometric pressure in millimeters mercury

C = the corrected flash point

Calculation:

Uncorrected flash point: 57.0 °C

Corrected local air pressure: 613 mm Hg

Calculated flash point = $57.0\text{ °C} + 0.03(760-613)\text{ °C} = 61.41\text{ °C} \Rightarrow 61.5\text{ °C}$

The result, as corrected, is above 60 °C and would not support an exceedence of the characteristic of ignitability.

Per the ASTM D3278-78 Setaflash method, if successive flash points performed at 0.5 °C/min agree within 1 °C, report the average of the two pressure corrected results to the nearest 0.5 °C and designate it as the flash point.

For additional quality control, NEIC recommends additional replicate analysis that may be used for establishing measurement uncertainty and/or statistical analysis.

If a finite flash point cannot be determined, for any reason, the data must be adequately summarized.

2.11 Data Organization

Record the results of testing in accordance with the NEIC quality system. Enter appropriate information in the instrument logbook. Preserve the records in the project file under ignitability determinations. Ensure that results are properly uploaded to the NEIC Laboratory Information Management System (LIMS). Applicable forms/records may include the electronic/hard copy bench sheet, the analyst's data summary (flash point template), and the instrument print out.

2.12 Data Review and Documentation

The data reviewer is responsible for verifying that the analyst has produced a complete and accurate data package. Reviewers shall be designated within the Laboratory Branch. The reviewer shall calculate at least one final result from the raw data provided in the flash point bench sheets. The reviewer shall check the various documents in the data package for measurement and transcription error. Additionally, the reviewer should ensure that the data are complete, are organized properly, and contain required quality control (QC) information.

Appendix A: Supplemental Information

- Range reporting: If a finite flashpoint cannot be determined (roughly five analyses at 0.5 °C), report a range. Select the upper range at 1 degree above the highest observed temperature. Select the lower range at 1 degree below the lowest observed temperature. The analyst may need to include a statement that the reported result is not a finite flash point using D3278-78. The analyst may still be able to report flash/no flash per Method A.
- Inconsistent results: The analyst may need to include a statement that the reported result is not a finite flash point using D3278-78. The analyst may still be able to report flash/no flash per method A.
- Instrument troubleshooting:
 - Heat transfer paste: Do not remove old paste from inside the thermometer well because damage may occur during removal. A piece of Tygon® tubing and syringe may be used to ensure that new paste is fully inserted into the well and the cavity is filled completely. If the heat-transfer paste has dried out inside the instrument, add new paste, insert a thermometer, and leave the instrument at 60 °C for 24 to 48 hours. Check a p-xylene flash point to ensure the instrument is functioning properly.
 - Cleaning the Peltier cooler: Only water (polished reverse osmosis - PRO with a small amount of tap water added) should be used in the chiller. For sub-ambient starting temperatures, if the temperature does not drop approximately 40 °C in 8-10 minutes (from 20 °C to -20 °C), it is advisable to clean out (back-flush) the Peltier cooler and/or the in-line metal-mesh filter.
 - O-ring: Use the black Viton® o-rings in the supply drawer. Check the o-ring for cleanliness and degradation, and replace it as necessary. Guard against accumulation of acetone around the o-ring.
 - Thermocouple cleaning: Ensure the thermocouple tip is straight and not in contact with the cover. If the p-xylene results are low, use a cotton swab soaked with acetone to clean the tip.
 - Printer paper and ink: Spare paper and ink are in the supply drawer. Replace as necessary.
 - Printing anomalies: Because printing anomalies occur randomly, be sure to observe each test and record the appropriate information on the bench sheet. Notations of data (start temperature, ramp rate, etc.) not printed on the printer paper should be made during the analysis.
 - Start-up glitch: If an alarm sounds when the power is turned on, turn the power off again and restart the flash point unit.
 - Fuses: The flash point apparatus uses three fuses (one in the back of the instrument and two in the plug). Replace if necessary.
- Sample volume limitation: The analyst will need to discuss the desired analysis approach with the principal analytical chemist (PAC), the project manager (PM), and/or customer if

Retired 04/30/2020

there is not enough sample volume for the required number of replicates for finite flash point analysis.

- Reporting limitations on sub-zero flash point results: Report “< 0 °C”, but add a footnote indicating what information was obtained.
- Operation of the chiller: Only water (PRO with some tap water added) should be used in the chiller. Leave the chiller set at 4.0 °C.
- Instrument cleaning between runs: Use the flame from the lighter to ensure that the vapors of the cleaning solvent are completely removed from the cup. A 10-mL syringe may be used to force solvent out the injection port.
- Alternative solvents: Acetone is the standard cleaning solvent; however, other solvents may be necessary to clean out some samples. The nature of the sample will determine which solvent will work. Some examples are water, methanol, xylene, hexane, and methylene chloride.

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Prime materials, as requested by Laurianne Jackson.



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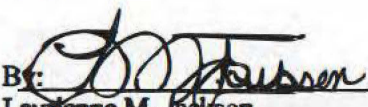
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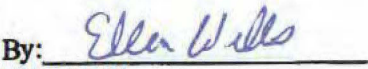
The undersigned certifies that the original of the attached **COMPLAINT AND NOTICE OF OPPORTUNITY FOR A HEARING UNDER 42 U.S.C. § 6928(a)** in the matter of New Prime, Inc. was filed by email, pursuant to the Standing Order Designation of EPA Region 8 Part 22 Electronic Filing System (May 8, 2020), with the Regional Hearing Clerk on September 21, 2020, and transmitted, together with a copy of 40 C.F.R. part 22, EPA's RCRA Penalty Policy and the previously referenced Standing Order on this day via email and USPS, certified mail, return receipt requested to:

Mark A. Ryan,
Counsel for New Prime, Inc.
Ryan & Kuehler PLLC
P.O. Box 3059
1112 State Route 20
Winthrop, Washington 98862
Certified Mail RRR # 7019 2280 0001 9112 5747
mr@ryankuehler.com.

9/21/2020
Date

By: 
Laurianne M. Jackson
Senior Assistant Regional Counsel
Regulatory Enforcement Section
U.S. EPA, Region 8
1595 Wynkoop Street (R8-ORC-R)
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jackson.laurianne@epa.gov

9/21/2020
Date

By: 
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