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Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
401 M Street, S. W.
Washington, DC 20460

Attn: TSCA Section 8(e) Coordinator (CAP Agreement)

Re: EPA ID No. 8ECAP-0009

Dear Sir or Madam:

BP Research submits the attached study pursuant to the terms of the TSCA Section 8(e) Compliance Audit Program (CAP) and the BP America CAP Agreement:

Study Identification

An Acute Oral Toxicity Study in Mice of Test Article 12764-73; Laboratory Study No. G2.7; Final Report Dated February 24, 1987.

Identity of Tested Chemical Substance/Mixture and CAS Number (if known)

2,4-Imidazolidinedione, 5-methyl-3-(4-cyanophenyl)-

CAS Number: Not known

Summary of Reportable Information

Groups of mice were administered differing doses of test article 12764-73 by oral intubation. Following 14 days of post-exposure observations, surviving animals were sacrificed and subjected to a gross postmortem examination.

The median lethal dose (LC50) of 12764-73 was calculated to be 1201 mg/kg for male mice and 1953 mg/kg for female mice. Responses noted following exposure included: death, coma, ataxia, convulsions, rapid breathing, dyspnea, tremors and lethargy.

BP Research notes that a number of the these responses appear in EPA's CAP reporting guidance as suggestive of reportable neurotoxicity.

RECEIVED
9/30/94

Re: EPA ID No. 8ECAP-0009
Laboratory Project G2.7
Page 2

BP Research has never manufactured, processed or imported 12764-73 for distribution in U. S. commerce. This chemical has been produced in small quantities exclusively for research and development purposes, and is no longer being considered for commercial applications.

Previous PMN or 8(e) Submissions by BPA: EPA Document Control Number(s)

None

Submitted by:



E. T. Korb
Manager, Health, Safety and
Environmental Quality
BP Research
216-581-5121

8-24-92

Date

ACUTE ORAL TOXICITY STUDY IN MICE

Performed for: The Standard Oil Company

Test Article: 12764-73

Author

Barry S. Levine, D.Sc., D.A.B.T.

Study Completed On

December 18, 1986

Performing Laboratory

Microbiological Associates, Inc.

5221 River Road

Bethesda, MD 20816-1493

Laboratory Study Number

G2.7

Final Report
Study No. G2.7
T5078

February 19, 1987

STATEMENT OF COMPLIANCE

To the best of my knowledge, (G2.7 - Acute Oral Toxicity Study in Mice) was conducted in compliance with the Good Laboratory Practices regulations as published in 21 CFR 58, 40 CFR 160 and 40 CFR 792 in all material aspects with the following reservations:

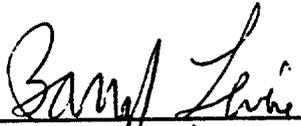
The identity, strength, purity, and composition or other characteristics to define the test or control substance have not been determined by the testing facility (Section 105 (a)).

The stability of the test or control substances under the test conditions has not been determined by the testing facility and is not included in the final report (Sections 105 (a) and (b) and 185 (a) (5)).

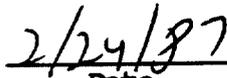
Analyses to determine the uniformity, concentration, or stability of the test or control mixtures were not performed by the testing facility (Section 113 (a)).

Signature

Study Director



Barry S. Levine, D.Sc., D.A.B.T.



Date

QUALITY ASSURANCE STATEMENT

Study Title: ACUTE ORAL TOXICITY STUDY IN MICE

Study Number: G2.7

Study Director: Barry S. Levine, D.Sc., D.A.B.T.

Initiation Date: 86/11/11

Review Completed Date: 87/02/24

This study has been divided into a series of phases. Using a random sampling approach, Quality Assurance monitors each of these phases over a series of studies. Procedures, documentation, equipment, etc., are examined in order to assure that the study is performed in accordance with the U.S. FDA Good Laboratory Practice regulations (21CFR58), the U.S. EPA GLPs (40CFR792 and 40CFR160), and the OECD guidelines and to assure that the study is conducted according to the protocol.

The following are the inspection dates, phases inspected, and report dates of QA inspections of the study.

INSPECT ON 86/11/03 - 86/11/03, TO STUDY DIR 86/11/03, TO MGMT 86/11/03

PHASES: PROTOCOL REVIEW

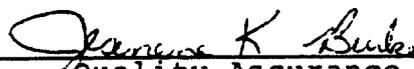
INSPECT ON 86/11/10 - 86/11/10, TO STUDY DIR 86/11/11, TO MGMT 86/12/09

PHASES: RANDOMIZATION

INSPECT ON 87/02/10 - 87/02/11, TO STUDY DIR 87/02/11, TO MGMT 87/02/24

PHASES: FINAL REPORT

This report describes the methods and procedures used in the study and the reported results accurately reflect the raw data of the study.



Quality Assurance
RA/QA Department

2/24/87

Date

Final Report
Study No. G2.7
T5078

ACUTE ORAL TOXICITY STUDY IN MICE
MBA Chemical No.: T5078

Sponsor: The Standard Oil Company
200 Public Square
Cleveland, Ohio 44114

Test Article: 12764-73

Sponsor
Representative: Mr. Dale E. Strother

Testing Facility: Microbiological Associates Inc. (MBA)
5221 River Road
Bethesda, Maryland 20816



Barry S. Levine, D.Sc., D.A.B.T. 2/24/87
Study Director Date

Limit Test

Initiation Date: November 11, 1986

Completion Date: November 12, 1986

Range-Finding and ID₅₀ Test

Initiation Date: December 2, 1986

Completion Date: December 18, 1986

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I. SUMMARY

A single oral dose of The Standard Oil Company chemical 12764-73 was administered at 5 g/kg to a group of five male and five female CD-1 mice for the limit test. All test animals died within 24 hours following dosing. Thus, further testing was necessary. A single oral dose of 500, 750, 1000, 1500, or 2000 mg/kg was administered to male and female CD-1 mice in a range-finding test to determine dose levels for the LD₅₀ test. 500, 700, 1000, 1400, or 2000 mg/kg doses were administered to male and female CD-1 mice during the LD₅₀ test. From the results of the LD₅₀ test, the calculated LD₅₀ of the test article for male CD-1 mice is 1201 mg/kg with a 95% confidence interval of 738 - 1953 mg/kg and for female CD-1 mice is 1081 mg/kg with a 95% confidence interval of 706 - 1655 mg/kg.

II. INTRODUCTION

The purpose of this study was to assess in mice the toxicity of a test article following a single oral dose. The experimental design was based on EPA's Health Effects Test Guidelines; EPA Report No. EPA 560/6-82-001, August, 1982, the Organization for Economic Co-Operation and Development (OECD) Guidelines for Testing of Chemicals, 1981, and the Federal Hazardous Substances Act (16 CFR, Part 1500). All laboratory methods and procedures were conducted in accordance with FDA Good Laboratory Practice Regulations and EPA Good Laboratory Practice Standards.

III. MATERIALS AND METHODS

A. Test Article

The test article (The Standard Oil Company chemical 12764-73; 25.06 g), was received on October 29, 1986 and was assigned an in-house chemical number (T5078). It was stored in the original container in a refrigerator, approximately 4°C, and at ambient relative humidity. The purity and stability of the test article were not determined, and are the responsibility of the Sponsor.

B. Dosage Preparation

The test article (12764-73) was administered as an aqueous sodium carboxymethylcellulose (0.5%)/Tween 80 (0.3%) suspension at a concentration of 250 mg/ml for the limit test. Concentrations of 25, 37.5, 50, 75, and 100 mg/ml were used for the range-finding test. Concentrations of 25, 35, 50, 70, and 100 mg/ml were used for the LD₅₀ test.

C. Test System

For the Limit Test, CD-1 mice, approximately five weeks of age (Date of Birth: October 1, 1986), were obtained from Charles River Breeding Laboratories, Inc., Portage, Michigan on November 5, 1986 (males) and November 6, 1986 (females). For the range-finding and LD₅₀ tests, male and female mice, approximately five weeks of age (Date of Birth: October 20, 1986), were obtained from Charles River Breeding Laboratories, Inc., Portage, Michigan on November 25, 1986. Although rats are specified for acute oral toxicity testing in EPA, OECD and FHSA guidelines, mice were chosen as the test system as they were specified by the sponsor and represent another rodent species.

Upon arrival, the animals were sexed and examined to determine their health, and were assigned a study-unique quarantine/pretest number. They were individually housed in polycarbonate cages which conformed to the upper weight range recommended in the Guide for the Care and Use of Laboratory Animals, DHEW (NIH) No. 85.23. The cages were bedded with Beta-Chip bedding (Northeastern Products Corp., Warrensburg, NY). Animal room temperature and relative humidity were generally maintained at 65-78°F and 30-70%, respectively, and the room was on a 12 hr light/12 hr dark cycle.

The mice were provided ad libitum access to drinking water via an automatic watering system and to Purina Certified Rodent Chow No. 5002 from arrival to termination except for an approximate 16-22 hour fast prior to dosing. The animals were quarantined approximately one week prior to test article administration. They were examined by the Clinical Veterinarian near the end of the quarantine period, and were released for placement on test at that time.

D. Test Procedure

1. Limit Test

Five animals per sex were selected for this study using a computer-generated randomization program. The selected animals were uniquely identified by an ear tag. A cage card appeared on the front of each cage and contained the following information: study number, test article identification, test animal number, treatment group number, and dose level.

The test animals were administered a single oral dose of 5 g/kg of the test article at a dosing volume of 20 ml/kg following an approximate 22 hour fast. This was accomplished by the use of a rigid oral feeding needle. They were dosed on Test Day 1 (November 11, 1986) between the hours of 1620 and 1630.

All animals were observed at least three times on Test Day 1 following test article administration. Body weights were obtained in Week -1 and on Test Day 1 for dosing calculations. All test animals which died were grossly necropsied as soon as possible. The gross necropsy included examination of the external surface, all orifices, cranial cavity, carcass, external surfaces of the brain, one cross section of spinal cord, nasal cavity and paranasal sinuses, the thoracic, abdominal and pelvic cavities and their viscera, and the cervical tissues and organs. All tissues and organs were discarded following termination of the gross necropsy procedure.

2. Range-Finding Test

Twenty animals were randomly assigned in sequential manner using a table of random numbers to five groups consisting of two animals per group per sex. The first dose tested was 1000 mg/kg. Subsequent doses listed below were tested in the order shown based on the previous results.

<u>Treatment Group</u>	<u>Dose Level (mg/kg)</u>	<u>Number of Males</u>	<u>Number of Females</u>
I	1000	2	2
II	500	2	2
III	2000	2	2
IV	1500	2	2
V	750	2	2

The selected animals were uniquely identified by an ear tag. A cage card appeared on the front of each cage and contained the following information: study number, test article identification, test animal number, treatment group number, and dose level.

The test animals were administered a single oral dose of the appropriate concentration of the test article at a dosing

volume of 20 ml/kg following an approximate 20-21 hour fast. This was accomplished by the use of a rigid oral feeding needle. They were dosed on Test Day 1 (December 02, 1986 or December 03, 1986) between the hours of 1130 and 1458 or 1115 and 1130, respectively.

Body weights were obtained in Week -1 and on Test Day 1 for dosing calculations. All surviving animals were killed by CO₂ asphyxiation after dose levels for the LD₅₀ test were determined and all tissues and organs were discarded after termination.

3. LD₅₀ Test

At the end of the quarantine/pretest period, 50 animals were randomly assigned on the basis of body weight using a computer program to five groups consisting of five animal per group per sex.

<u>Treatment Group</u>	<u>Dose Level (mg/kg)</u>	<u>Males</u>	<u>Females</u>
I	500	5	5
II	700	5	5
III	1000	5	5
IV	1400	5	5
V	2000	5	5

The selected animals were uniquely identified by an ear tag. A cage card appeared on the front of each cage and contained the following information: study number, test article identification, test animal number, treatment group number, and dose level.

The test animals were administered a single oral dose of the appropriate concentration of the test article at a dosing volume of 20 ml/kg following an approximate 19-20 hour fast. This was accomplished by the use of a rigid oral feeding needle. They were dosed on Test Day 1 (December 04, 1986) between the hours of 1220 and 1302.

All animals were observed at least three times on Test Day 1 following test article administration, and once daily for the subsequent 14-day observation period. Body weights were

obtained in Week -1, and on Test Day 1 for dosing calculations, Test Day 8, and Test Day 15 prior to necropsy. All test animals which died were grossly necropsied as soon as possible. At fourteen days post-treatment (Test Day 15), all surviving animals were killed by CO₂ asphyxiation and grossly necropsied. The gross necropsy included examination of the external surface, all orifices, cranial cavity, carcass, external surfaces of the brain, one cross section of spinal cord, nasal cavity and paranasal sinuses, the thoracic, abdominal and pelvic cavities and their viscera, and the cervical tissues and organs. All tissues and organs were discarded following termination of the gross necropsy procedure.

Probit analysis of dose-mortality data by the method of Miller and Tainter (1944) as aided by linear regression was used to calculate the LD₅₀ and its 95% confidence interval and the slope of the dose-mortality curve.

IV. RESULTS AND DISCUSSION

A. Limit Test

1. Mortality

All test animals died within 24 hours after dosing.

2. Clinical Signs

Lethargy and tremors were observed within 2 hours following test article administration.

3. Gross Necropsy

Gross necropsies were performed on all animals and no treatment-related lesions were observed.

B. Range-Finding Test

1. Mortality

The following deaths occurred at the various dose levels.

<u>Dose Level</u>	<u>Mortality^a</u>	
	<u>Males</u>	<u>Females</u>
500 mg/kg	0/2	0/2
750 mg/kg	1/2	0/2

1000 mg/kg	1/2	1/2
1500 mg/kg	2/2	1/2
2000 mg/kg	2/2	2/2

^a - number of deaths/number of animals in group

2. Clinical Signs

The following clinical signs were observed.

500 mg/kg:	no signs observed
750 mg/kg:	no signs observed
1000 mg/kg:	ataxia, loss of righting reflex, rapid breathing, hyperactivity, lethargy
1500 mg/kg:	rapid breathing, tremors, lethargy, dyspnea
2000 mg/kg:	dyspnea, tremors, lethargy

C. LD₅₀ Test

1. Body Weights

Body weights did not appear to be affected by test-article treatment for those animals that survived the fourteen-day observation period (Tables 1 and 2). Those mice which survived continued to gain weight at a normal pace for the remainder of the observation period.

2. Clinical Signs

Clinical observations seen during the LD₅₀ test are shown in Tables 3 and 4. Clinical observations seen following dosing included lethargy, tremors, dyspnea, rapid breathing, convulsions, ataxia, and a comatose state.

3. Mortality

The dose mortality data obtained from the test were used to calculate the LD₅₀. The calculated LD₅₀ for male CD-1 mice is 1201 mg/kg with a 95% confidence interval of 738 - 1953 mg/kg. The slope of the male dose mortality curve is 4.76 probit/log dose. The calculated LD₅₀ for female CD-1 mice is 1081 mg/kg with a 95% confidence interval of 706 - 1953 mg/kg. The slope of the female dose mortality curve is 6.66 probit/log dose. The 95% confidence intervals for both sexes overlap, thus demonstrating that a sex effect was not apparent.

4. Gross Necropsy

Gross necropsies were performed on all animals and lesions were observed, however, these lesions are not considered as treatment-related. There were no apparent trends associating dose level with the incidence of observed lesions. Gross necropsy observations are shown in Tables 7 and 8.

V. PERSONNEL

Barry S. Levine, D.Sc., D.A.B.T. - Toxicologist and Study Director
Brian Makle, B.S. - Technician
Tracey Curry, B.A. - Technical Support
Nona Karten, M.A. - Quality Assurance
John Miller, DVM, D.A.A.L.A.M. - Clinical Veterinarian

VI. ARCHIVES

The raw data and final report are archived at Microbiological Associates Inc., 5221 River Road, Bethesda, MD 20816.

Acute Oral Toxicity Study in Mice

Table 1
Male Body Weights (g)

Group Treatment	Animal Number	Test Day			
		Week -1	1	8	15
(1) T5078 (500 mg/kg)	46	29.9	29.9	34.0	35.8
	47	30.2	27.3	32.6	36.8
	48	25.7	22.0	26.3	29.7
	49	30.8	26.4	27.0	30.1
	50	27.2	25.4	28.7	32.4
	Mean ± S.D.	28.8 ± 2.2	26.2 ± 2.9	29.7 ± 3.4	33.0 ± 3.2
(2) T5078 (700 mg/kg)	56	26.6	23.7	26.8	29.4
	57	26.7	24.9	28.9	32.6
	58	27.2	24.8	28.6	30.0
	59	30.2	26.1	-	-
	60	29.8	26.0	27.5	29.0
	Mean ± S.D.	28.1 ± 1.8	25.1 ± 1.0	28.0 ± 1.0	30.3 ± 1.6
(3) T5078 (1000 mg/kg)	66	28.8	29.1	30.1	32.5
	67	24.7	24.3	30.8	34.3
	68	27.4	24.0	-	-
	69	28.5	25.6	28.4	33.7
	70	31.2	27.7	29.7	33.1
	Mean ± S.D.	28.1 ± 2.4	26.1 ± 2.2	29.8 ± 1.0	33.4 ± 0.8
(4) T5078 (1400 mg/kg)	76	27.4	23.0	-	-
	77	27.4	24.4	27.2	29.7
	78	27.3	23.4	29.6	31.6
	79	31.0	28.1	-	-
	80	30.5	26.6	30.3	31.9
	Mean ± S.D.	28.7 ± 1.9	25.1 ± 2.2	29.0 ± 1.6	31.1 ± 1.2
(5) T5078 (2000 mg/kg)	86	27.2	24.3	-	-
	87	28.7	25.1	-	-
	88	29.6	26.8	-	-
	89	28.1	25.3	-	-
	90	28.3	22.7	-	-
	Mean ± S.D.	28.4 ± 0.9	24.8 ± 1.5	N/A	N/A

- = previously dead
NA = not applicable

Acute Oral Toxicity Study in Mice

Table 2

Female Body Weights (g)

Group Treatment	Animal Number	Test Day			
		Week -1	1	8	15
(1) T5078 (500 mg/kg)	51	23.3	21.2	24.7	26.8
	52	21.4	21.6	22.9	25.9
	53	19.8	18.4	19.1	19.9
	54	22.4	19.7	23.4	25.4
	55	24.6	25.2	25.7	26.7
	Mean ± S.D.	22.3 ± 1.8	21.2 ± 2.6	23.2 ± 2.5	24.9 ± 2.9
(2) T5078 (700 mg/kg)	61	21.1	20.9	23.2	25.5
	62	22.7	25.3	26.0	27.5
	63	23.4	22.1	24.7	25.2
	64	20.8	20.2	21.0	22.2
	65	22.4	19.4	21.9	24.9
	Mean ± S.D.	22.1 ± 1.1	21.6 ± 2.3	23.4 ± 2.0	25.1 ± 1.9
(3) T5078 (1000 mg/kg)	71	20.3	20.1	-	-
	72	23.6	21.7	-	-
	73	22.6	19.1	20.2	22.6
	74	22.8	20.9	-	-
	75	23.1	22.0	23.7	24.8
	Mean ± S.D.	22.5 ± 1.3	20.8 ± 1.2	22.0 ± 2.5	23.7 ± 1.6
(4) T5078 (1400 mg/kg)	81	23.2	20.8	-	-
	82	20.5	18.6	-	-
	83	21.8	19.4	22.6	25.3
	84	22.6	20.6	-	-
	85	23.4	21.6	-	-
	Mean ± S.D.	22.3 ± 1.2	20.2 ± 1.2	22.6 ± 0.0	25.3 ± 0.0
(5) T5078 (2000 mg/kg)	91	21.9	18.1	-	-
	92	23.1	20.6	-	-
	93	23.7	20.2	-	-
	94	20.8	19.2	-	-
	95	19.8	19.5	-	-
	Mean ± S.D.	21.9 ± 1.6	19.5 ± 1.0	N/A	N/A

- = previously dead
NA = not applicable

Acute Oral Toxicity Study in Mice
Table 3
Incidence of Male Clinical Observations

<u>Clinical Observation^a</u>	<u>Dose (mg/kg)</u>				
	<u>500</u>	<u>700</u>	<u>1000</u>	<u>1400</u>	<u>2000</u>
Lethargy	0/5	4/5	5/5	5/5	3/5
Tremors	0/5	0/5	3/5	1/5	2/5
Dyspnea	2/5	3/5	4/5	1/5	3/5
Rapid Breathing	0/5	1/5	5/5	4/5	0/5
Convulsions	0/5	0/5	0/5	2/5	2/5
Comatose	0/5	0/5	0/5	0/5	0/5
Ataxia	0/5	1/5	1/5	1/5	2/5

^aNumber of animals with sign/number of animals in group.

Acute Oral Toxicity Study in Mice
Table 4
Incidence of Female Clinical Observations

<u>Clinical Observation^a</u>	<u>Dose (mg/kg)</u>				
	<u>500</u>	<u>700</u>	<u>1000</u>	<u>1400</u>	<u>2000</u>
Lethargy	0/5	5/5	3/5	5/5	1/5
Tremors	0/5	0/5	1/5	5/5	1/5
Dyspnea	0/5	0/5	1/5	2/5	1/5
Rapid Breathing	0/5	1/5	2/5	2/5	0/5
Convulsions	0/5	0/5	0/5	2/5	3/5
Comatose	0/5	0/5	0/5	0/5	1/5
Ataxia	0/5	0/5	1/5	1/5	0/5

^aNumber of animals with sign/number of animals in group.

Acute Oral Toxicity Study in Mice

Table 5

Male Dose Mortality Data

<u>Dose (mg/kg)</u>	<u>Number of Animals</u>	<u>Number of Death by Day 15</u>	<u>Time to Death (hours)</u>
500	5	0	-
700	5	1	24.5
1000	5	1	24.5
1400	5	2	2
2000	5	5	1.5 - 20.5

LD₅₀ (mg/kg) 1201
95% Confidence Interval of
LD₅₀ (mg/kg) 738 - 1953
Slope (probit/log dose) 4.76

- = not applicable

Acute Oral Toxicity Study in Mice

Table 6

Female Dose Mortality Data

<u>Dose (mg/kg)</u>	<u>Number of Animals</u>	<u>Number of Death by Day 15</u>	<u>Time to Death (hours)</u>
500	5	0	-
700	5	0	-
1000	5	3	0.5 - 24.5
1400	5	4	2 - 26
2000	5	5	0.5 - 2

LD ₅₀ (mg/kg)	1081
95% Confidence Interval of LD ₅₀ (mg/kg)	706 - 1655
Slope (probit/log dose)	6.66

- = not applicable

ACUTE ORAL TOXICITY STUDY IN MICE

Table 7

Male Gross Necropsy Observations

Dose (mg/kg)	Animal Number	Death Status	Preputial Gland Abscess	Enlarged Preputial Glands	Dark Red Lungs
500	46	T	X		
	47	T			
	48	T			
	49	T			
	50	T			
700	56	T			
	57	T			
	58	T			
	59	D			
	60	T			
1000	66	T			
	67	T			
	68	D			
	69	T			X
	70	T			
1400	76	D			
	77	T			
	78	T			
	79	D			
	80	T			
2000	86	D			
	87	D		X	
	88	D			
	89	D			
	90	D			

D - Died on test.
 T - Survived and was necropsied after the fourteen-day observation period.
 X - Present

ACUTE ORAL TOXICITY STUDY IN MICE

Table 8

Female Gross Necropsy Observations

Dose (mg/kg)	Animal Number	Death Status	Kidney Atrophy	Fluid Filled Uterus	Mottled Spleen	Dark Red Lungs	Pale Liver	Distended Stomach	Cystic Ovary	Reddened Small Intestine (Serosa)
500	51	T		X						
	52	T								
	53	T								
	54	T		X						
	55	T								
700	61	T	X							
	62	T								
	63	T								
	64	T								
	65	T								
1000	71	D				X				
	72	D		X						
	73	T								
	74	D								
	75	T								
1400	81	D								X
	82	D								
	83	T								
	84	D				X			X	
	85	D								
2000	91	D								
	92	D								
	93	D								
	94	D						X		X
	95	D								X



MICROBIOLOGICAL ASSOCIATES INC.

- Died on test.
 - Survived and was necropsied after the fourteen-day observation period.
 - Present



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

E.T. Korb
Manager, Health, Safety and Environmental Quality
BP Research.
BP Oil Company
200 Public Square
Cleveland, Ohio 44114-2375

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

DEC 27 1994

EPA acknowledges the receipt of information submitted by your organization under Section 8(e) of the Toxic Substances Control Act (TSCA). For your reference, copies of the first page(s) of your submission(s) are enclosed and display the TSCA §8(e) Document Control Number (e.g., 8EHQ-00-0000) assigned by EPA to your submission(s). Please cite the assigned 8(e) number when submitting follow-up or supplemental information and refer to the reverse side of this page for "EPA Information Requests".

All TSCA 8(e) submissions are placed in the public files unless confidentiality is claimed according to the procedures outlined in Part X of EPA's TSCA §8(e) policy statement (43 FR 11110, March 16, 1978). Confidential submissions received pursuant to the TSCA §8(e) Compliance Audit Program (CAP) should already contain information supporting confidentiality claims. This information is required and should be submitted if not done so previously. To substantiate claims, submit responses to the questions in the enclosure "Support Information for Confidentiality Claims". This same enclosure is used to support confidentiality claims for non-CAP submissions.

Please address any further correspondence with the Agency related to this TSCA 8(e) submission to:

Document Processing Center (7407)
Attn: TSCA Section 8(e) Coordinator
Office of Pollution Prevention and Toxics
U.S. Environmental Protection Agency
Washington, D.C. 20460-0001

EPA looks forward to continued cooperation with your organization in its ongoing efforts to evaluate and manage potential risks posed by chemicals to health and the environment.

Sincerely,

Terry R. O'Bryan
Terry R. O'Bryan
Risk Analysis Branch

Enclosure

12861 A



Recycled/Recyclable
Printed with Soy-Based Ink

Triage of 8(e) Submissions

AUG 22 1985

Date sent to triage: _____

NON-CAP

CAP

Submission number: 12861A

TSCA Inventory:

Y

N

D

Study type (circle appropriate):

Group 1 - Dick Clements (1 copy total)

ECO

AQUATO

Group 2 - Ernie Falke (1 copy total)

ATOX

SBTOX

SEN

w/NEUR

Group 3 - Elizabeth Margosches (1 copy each)

STOX

CTOX

EPI

RTOX

GTOX

STOX/ONCO

CTOX/ONCO

IMMUNO

CYTO

NEUR

Other (FATE, EXPO, MET, etc.): _____

Notes:

THIS IS THE ORIGINAL 8(e) SUBMISSION; PLEASE REFILE AFTER TRIAGE DATABASE ENTRY

For Contractor Use Only			
entire document:	0	pages <u>1, 2</u>	pages <u>1, 2, 8</u>
Notes:			
Contractor reviewer:	<u>PAR</u>	Date:	<u>11/21/94</u>

CECATS/TRIAGE TRACKING DBASE ENTRY FORM

CFCATS DATA:

Submission # REF: 0892-12861 SEQ. A

TYPE: INT SUPP FLWP

SUBMITTER NAME: BP America Inc.

INFORMATION REQUESTED: FLWP DATE: _____

- 0501 NO INFO REQUESTED
- 0502 INFO REQUESTED (TECH)
- 0503 INFO REQUESTED (VOL. ACTIONS)
- 0504 INFO REQUESTED (REPORTING RATIONALE)

DISPOSITION:

- 0639 REFER TO CHEMICAL SCREENING
- 0678 CAP NOTICE

0401 VOLUNTARY ACTIONS:

- 0401 NO ACTION REPORTED
- 0402 STUDIES PLANNED/UNDERWAY
- 0403 NOTIFICATION OF WORKING CONDITIONS
- 0404 LABEL/MSDS CHANGES
- 0405 PROCESS/HANDLING CHANGES
- 0406 APP/USE DISCONTINUED
- 0407 PRODUCTION DISCONTINUED
- 0408 CONFIDENTIAL

SUB. DATE: 08/28/92 OTS DATE: 08/28/92 CSRAD DATE: 09/29/94

CHEMICAL NAME:

2,4 - Imidazolidinedione, 5-methyl-
3 - (4-cyanophenyl) -

CAS#

unknown

INFORMATION TYPE:	P F C	INFORMATION TYPE:	P F C	INFORMATION TYPE:	P F C
0201 ONCO (HUMAN)	01 02 04	0216 EPI/CLIN	01 02 04	0241 IMMUNO (ANIMAL)	01 02 04
0202 ONCO (ANIMAL)	01 02 04	0217 HUMAN EXPOS (PROD CONTAM)	01 02 04	0242 IMMUNO (HUMAN)	01 02 04
0203 CELL TRANS (IN VITRO)	01 02 04	0218 HUMAN EXPOS (ACCIDENTAL)	01 02 04	0243 CHEM/PHYS PROP	01 02 04
0204 MUTA (IN VITRO)	01 02 04	0219 HUMAN EXPOS (MONITORING)	01 02 04	0244 CLASTO (IN VITRO)	01 02 04
0205 MUTA (IN VIVO)	01 02 04	0220 ECO/AQUA TOX	01 02 04	0245 CLASTO (ANIMAL)	01 02 04
0206 REPRO/TERATO (HUMAN)	01 02 04	0221 ENV. OCC/REL/FATE	01 02 04	0246 CLASTO (HUMAN)	01 02 04
0207 REPRO/TERATO (ANIMAL)	01 02 04	0222 EMER INCI OF ENV CONTAM	01 02 04	0247 DNA DAM/REPAIR	01 02 04
0208 NEURO (HUMAN)	01 02 04	0223 RESPONSE REQEST DELAY	01 02 04	0248 PROD/USE/PROC	01 02 04
<u>0209</u> NEURO (ANIMAL)	01 <u>02</u> 04	0224 PROD/COMP/CHEM ID	01 02 04	0251 MSDS	01 02 04
0210 ACUTE TOX. (HUMAN)	01 02 04	0225 REPORTING RATIONALE	01 02 04	0299 OTHER	01 02 04
0211 CHR. TOX. (HUMAN)	01 02 04	0226 CONFIDENTIAL	01 02 04		
<u>0212</u> ACUTE TOX. (ANIMAL)	01 02 04	0227 ALLERG (HUMAN)	01 02 04		
<u>0213</u> SUB ACUTE TOX (ANIMAL)	01 <u>02</u> 04	0228 ALLERG (ANIMAL)	01 02 04		
0214 SUB CHRONIC TOX (ANIMAL)	01 02 04	0239 METAB/PHARMACO (ANIMAL)	01 02 04		
0215 CHRONIC TOX (ANIMAL)	01 02 04	0240 METAB/PHARMACO (HUMAN)	01 02 04		

TRIAGE DATA NON-CBI INVENTORY

YES

CAS SR

NO

DETERMINE

ONGOING REVIEW

YES (DROP/REFER)

NO (CONTINUE)

REFER:

SPECIES

MUS

TOXICOLOGICAL CONCERN:

LOW

MED

HIGH

USE:

PRODUCTION:

COMMENTS:

-CPSS-

> <ID NUMBER>
8(E)-12861A

> <TOX CONCERN>
✓ ~~M~~/L/L

> <COMMENT>

ACUTE ORAL TOXICITY IN MALE AND FEMALE CHR CD-1 MICE IS OF MEDIUM CONCERN. A LIMIT TEST FOR ACUTE ORAL TOXICITY (LD50) STUDY RESULTED IN 100% MORTALITY WITHIN 24 HOURS FOLLOWING ADMINISTRATION OF SINGLE ORAL DOSES OF 5 G/KG TO GROUPS OF MICE (5/SEX/GROUP). *LOW*

ACUTE ORAL TOXICITY IN MALE AND FEMALE CHR CD-1 MICE IS OF LOW CONCERN. RANGE-FINDING STUDY PRECEDING AN ACUTE ORAL TOXICITY (LD50) STUDY PRODUCED SIGNS OF NEUROTOXICITY AND DEATH IN MICE (2/SEX/DOSAGE) WITH SINGLE ORAL DOSES OF 1000 MG/KG (1/2M,1/2F), 1500 MG/KG (2/2M,1/2F) AND 2000 MG/KG (2/2M,2/2F); NO SIGNS OF TOXICITY WERE OBSERVED IN MICE GAVAGED DOSES OF 500 AND 750 MG/KG.

ACUTE ORAL TOXICITY IN MALE AND FEMALE CHR CD-1 MICE IS OF LOW CONCERN. SINGLE DOSES OF 500, 700, 1000, 1400 AND 2000 MG/KG EACH GAVAGED TO GROUPS OF 5 MALE AND 5 FEMALE MICE WERE ASSOCIATED WITH SIGNS OF NEUROTOXICITY AND MORTALITY CONSISTENT WITH RESPECTIVE ORAL LD50'S OF 1201 (738-1953) MG/KG AND 1081 (806-1655) MG/KG AS FOLLOWS: 500 MG/KG (0/5M,0/5F), 700 MG/KG (1/5M,0/5F), 1000 MG/KG (1/5M,3/5F), 1400 MG/KG (2/5M,4/5F), 2000 MG/KG (5/5M,5/5F). PHARMACOTOXIC SIGNS DURING 14-DAY POST-GAVAGE OBSERVATION INCLUDED LETHARGY, RAPID BREATHING, DYSPNEA AND ATAXIA AT THE 2 LOWEST DOSAGES, WHILE NEUROTOXIC SIGNS INCLUDING TREMORS, CONVULSIONS AND COMA WERE EXHIBITED IN ANIMALS OF 1000 MG/KG DOSES AND ABOVE. THE ONLY RECURRING FINDING ON GROSS NECROPSY WAS FLUID-FILLED UTERUS AMONG FEMALES OF ALL DOSAGE LEVELS, ALTHOUGH GROSS PATHOLOGY FINDINGS WERE CONSIDERED UNRELATED TO TREATMENT.

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