



ESTABLISHED 1802

E. I. DU PONT DE NEMOURS & COMPANY  
INCORPORATED

WILMINGTON, DELAWARE 19898

CHEMICALS AND PIGMENTS DEPARTMENT



8494000044

742-0794-000944

A

March 8, 1989

Ms. Roberta Wedge  
Deputy Project Manager  
Dynamac Corporation  
11140 Rockville Pike  
Rockville, MD 20852



FYI-94-000944  
INIT 07/26/94

Dear Ms. Wedge:

RED 2B ACID

With reference to your letter of February 21, 1989, following are our responses to the questions posed in your August 29, 1988 letter to Mark Christman of our Legal Department.

- o Compound: 2-Chloro-4-aminotoluene-5-sulfonic acid
- o CAS Registry No: 88-51-7
- o Synonyms: 6-Amino-4-chloro-m-toluenesulfonic acid, Lithosol Red 2B Acid, Red 2B Acid, 2B Acid, Permanent Red 2B Amine, Brilliant Toning Red Amine
- o Production volume: 750,000 to 1,000,000 lbs/yr.
- o Manufacturing process: Toluene is nitrated to yield ortho-, meta- and para-nitrotoluene. The isomers are separated and p-nitrotoluene is further chlorinated, reduced and sulfonated to yield Red 2B acid.
- o Uses: Red 2B acid is used primarily in the manufacture of Pigment Red 48. This pigment is used mainly for printing inks but it is also used as a colorant for plastics and interior paints. The prime ink application is in packaging inks; plastic usage is in the lower melting plastics like vinyls because higher plastic processing temperatures result in hue changes.
- o Toxicity data: Attached are copies of acute toxicity tests conducted by Du Pont. The results show that Red 2B acid:
  - is not a skin sensitizer
  - is a mild skin irritant
  - is a mild eye irritant and causes only transient toxicity on contact

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- has slight inhalation toxicity (ALC > 13 mg/l), and
- has low general toxicity (oral LD50 > 7500 mg/kg)

We have no chronic toxicity data on the compound.

- o Occupational exposure: Approximately 40 man-hours per month in Du Pont's manufacturing operations. Exposure occurs primarily during product pack-out since manufacture is conducted in closed equipment. Workers wear full clothing (Tyvek overalls), rubber gloves, safety glasses with side shields or chemical goggles and approved respirators. Engineering controls to limit inhalation exposure include a Torit dust collector with bag filter.
- o Environmental releases: We estimate that less than 0.1 lb/month of Red 2B acid enters the atmosphere as contamination during manufacturing. Product accumulated through the bag filter is disposed of in a secure on-site landfill. Between 600 and 700 pounds of product per month is lost due to equipment (reactor and filter) clean-out. This waste material enters a site waste water stream and is led to the plant's waste water treatment facility where it undergoes primary, secondary, and tertiary treatment along with other plant wastes. We believe that less than detectable quantities of Red 2B acid enter receiving waters through the plant's NPDES outfall.
- o Literature: A Product Material Safety Data Sheet and technical bulletin are attached for additional reference.

We hope these inputs provide you with the information you need; call me on (302) 774-6467 if you have any further questions.

Yours truly,



K. D. Dastur  
Manager, Toxicity and Product Hazards

KDD:jah  
KDD05

Attachment

## MATERIAL SAFETY DATA SHEET

### IDENTIFICATION

**NAME**

2-Chloro-4-Aminotoluene-5-Sulfonic Acid

**GRADE**

Technical

**CHEMICAL FAMILY**

Aromatic

**SYNONYMS**

Lithosol® Red 2BAcid; 6-Amino-4-chloro-m-toluene sulfonic acid

**FORMULA**

$\text{NH}_2(\text{Cl})(\text{CH}_3)\text{C}_6\text{H}_2\text{SO}_3\text{H}$

**CAS NAME**

Benzenesulfonic acid, 2-amino-4-chloro-5-methyl

**CAS REGISTRY NO.**

88-51-7

**I.D. NOS./CODES**

NIOSH Registry No: XT6330000

**PRODUCT INFORMATION PHONE**

(800) 441-9442 or  
Wilmington, Delaware  
(302) 774-2099

**MANUFACTURER/DISTRIBUTOR**

E. I. du Pont de Nemours & Co. (Inc.)

**MEDICAL EMERGENCY PHONE**

(800) 441-3637

**ADDRESS**

Wilmington, DE 19898

**TRANSPORTATION EMERGENCY PHONE**

CHEMTREC (800) 424-9300

### PHYSICAL DATA

**BOILING POINT, 760 mm Hg**

Not applicable

**MELTING POINT**

280°C-300°C (536°F-572°F)

**SPECIFIC GRAVITY**

(Bulk) 0.65

**VAPOR PRESSURE**

Not applicable

**VAPOR DENSITY**

Not applicable

**SOLUBILITY IN WATER**

Very slightly soluble at  
25°C (77°F)

**pH INFORMATION**

3.2 (water extract)

**EVAPORATION RATE (BUTYL ACETATE=1)**

<1

**FORM**

Solid

**COLOR**

Light gray to off-white

**APPEARANCE**

Coarse powder

**ODOR**

Odorless

**HAZARDOUS COMPONENTS**

<u>MATERIAL(S)</u>	<u>APPROXIMATE %</u>
2-Chloro-4-Aminotoluene-5-Sulfonic Acid	97.0
2-Chloro-4-Aminotoluene Acid Sulfate	0.75

**HAZARDOUS REACTIVITY**

**INSTABILITY**

Stable at normal temperatures and conditions of storage.

**INCOMPATIBILITY**

Incompatible with oxidizing agents.

**DECOMPOSITION**

Can decompose if overheated (536-572°F), releasing hazardous oxides of nitrogen and sulfur, and hydrochloric acid gases.

**POLYMERIZATION**

Will not occur.

**FIRE AND EXPLOSION DATA**

**FLASH POINT** Not applicable

**METHOD** Not applicable

**AUTOIGNITION TEMPERATURE**  
Not applicable

**FLAMMABLE LIMITS IN AIR, % BY VOL.**  
**LOWER** Not applicable  
**UPPER** Not applicable

**AUTODECOMPOSITION TEMPERATURE**  
Not applicable

**FIRE AND EXPLOSION HAZARDS**

Will burn if overheated; decomposes at 536-572°F.  
Dust can form explosive mixtures with air.

**EXTINGUISHING MEDIA**

Small fires: Dry chemical, carbon dioxide (CO<sub>2</sub>)  
Large fires: Water spray, fog, or foam

**SPECIAL FIRE FIGHTING INSTRUCTIONS**

Evacuate area, stay upwind, and avoid smoke and fumes. Use water spray to cool containers and wet down exposed material. If smoke and fumes cannot be avoided, wear chemical-proof suit with hood and breathing air supply.

**HEALTH HAZARD INFORMATION**

**PRINCIPAL HEALTH HAZARDS (Including Significant Routes, Effects, Symptoms of Over-Exposure, and Medical Conditions Aggravated by Exposure)**

Causes irritation.

Inhalation 4 hour ALC: >13 mg/L in rats

Oral LD50: >7500 mg/kg in rats

#### **CARCINOGENICITY**

Not listed as a carcinogen by IARC, NTP, OSHA, ACGIH, or Du Pont.

#### **EXPOSURE LIMITS (PEL (OSHA), TLV (ACGIH), AEL (DU PONT), ETC.)**

Exposure limits for 2-chloro-4-aminotoluene-5-sulfonic acid have not been established by OSHA, ACGIH, or Du Pont.

#### **SAFETY PRECAUTIONS**

Avoid contact with eyes, skin, and clothing.

Avoid breathing dust.

Wash thoroughly after handling.

#### **FIRST AID**

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician. Flush skin with water.

If swallowed, do not induce vomiting. Immediately give two glasses of water or activated charcoal slurry. Call a physician. Never give anything by mouth to an unconscious person.

#### **NOTE TO PHYSICIAN:**

To prepare activated charcoal slurry, suspend 50 grams activated charcoal in 400 mL water in plastic bottle and shake well. Administer 5 mL/Kg, or 350 mL for an average adult.

#### **PROTECTION INFORMATION**

##### **GENERALLY APPLICABLE CONTROL MEASURES**

Good general ventilation should be provided to minimize contact with powder or dust and to prevent formation of explosive dust and air mixtures.

##### **PERSONAL PROTECTIVE EQUIPMENT**

Have available and wear as appropriate to prevent contact with solid or dust: safety spectacles (side shields preferred); chemical splash goggles; hard hat with brim; leather or rubber covered canvas gloves; long sleeve shirt; long pants; rubber overshoes; and appropriate respiratory protection (29 CFR 1910.134).

#### **DISPOSAL INFORMATION**

##### **SPILL, LEAK OR RELEASE**

Sweep up and transfer to a covered metal or fiber container for disposal. Flush area with water. Comply with Federal, State, and local regulations on reporting releases.

**WASTE DISPOSAL**

Comply with Federal, State, and local regulations. If approved, may be incinerated, sent to an approved disposal area, or transferred to a licensed disposal contractor. Used drums should be washed free of dust before disposal.

**SHIPPING INFORMATION**

DOT (172.101)

PROPER SHIPPING NAME Not regulated as a hazardous material by DOT.

HAZARD CLASS Not regulated.

IMO (PAGE )

PROPER SHIPPING NAME Not regulated as a hazardous material.

HAZARD CLASS Not regulated.

DOT/IMO (172.102)

PROPER SHIPPING NAME Not regulated as a hazardous material.

HAZARD CLASS Not regulated.

IATA/ICAO

PROPER SHIPPING NAME Not regulated as a hazardous material.

HAZARD CLASS Not regulated.

**OTHER INFORMATION**

**SHIPPING CONTAINERS**

Fiber drums

**STORAGE CONDITIONS**

Store inside in a cool, well ventilated area away from heat, sparks, and flame. Do not store with flammable or strong oxidizing materials. Protect drums from physical damage. Keep drums tightly closed and in upright position. Do not roll drums on side.

**ADDITIONAL INFORMATION AND REFERENCES**

For further information, see Du Pont "2-Chloro-4-Aminotoluene-5-Sulfonic Acid, Technical" Data Sheet.

DATE OF LATEST REVISION/REVIEW: 8/85

PERSON RESPONSIBLE FOR MSDS: J. C. Watts, Du Pont Co., C&P Dept., Chestnut Run, Wilmington, DE 19898, (302) 999-4946

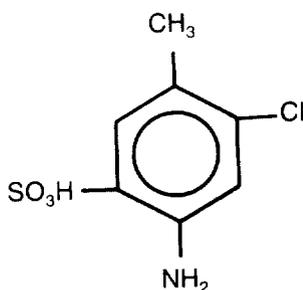
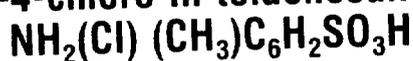


# DU PONT

DATA SHEET

## 2-CHLORO-4-AMINOTOLUENE-5-SULFONIC ACID TECHNICAL (6-Amino-4-chloro-m-toluenesulfonic acid)

CAS Reg. No. 88-51-7



This product is an off-white to pink, coarse powder. It is also known as 2B Acid. It is used as a pigment and dye intermediate.

In case of contact with the eyes, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician. For skin, flush with water.

### SPECIFICATIONS (201-C)

2-Chloro-4-aminotoluene-5-sulfonic acid, %, min	97.0
Unconverted amines (2-chloro-4-aminotoluene acid sulfate), %, max	0.75
Impurities insoluble in dilute aqueous NaOH, %, max	1.5

### PHYSICAL PROPERTIES

Molecular weight	221.7
Specific gravity (bulk)	0.65
Solubility in water (25 C)	very slightly soluble

### PERSONAL SAFETY AND FIRST AID

2-Chloro-4-aminotoluene-5-sulfonic acid may irritate

### STORAGE AND HANDLING

2-Chloro-4-aminotoluene-5-sulfonic acid is sold in fiber drums, in the form of a gray to light red powder. It will burn, and the dust should be protected from ignition.

#### Storage

Drums should be stored in a cool, well-ventilated area, separated from flammable and readily oxidizable materials, with the drums protected from physical damage. Fire protection with an automatic or remotely controlled sprinkler system should be considered.

#### Drum Handling

The fiber drums should be opened and dumped in a location provided with positive, forced ventilation so that contact with dust by personnel emptying drums is avoided. Used drums should be washed free of powder or dust before disposal.

rubber overshoes. Care must be taken to avoid inhalation of dust and to avoid contact of eye, skin or clothing with powder or dust.

Appropriate respiratory protection<sup>(1)</sup> should be worn in dusty areas.

Spills should be shoveled up promptly into drums for recovery or disposal using care to avoid dusting, and the spill area hosed down with cold water. At the end of each shift, work clothes should be laundered, and each operator should shower.

Waste water containing small amounts of 2-chloro-4-aminotoluene-5-sulfonic acid from drum washing or from clean-up operations should be disposed of according to Federal, State and local regulations.

### Fire Hazard

In the event of fire, fire-fighting personnel should wear respiratory protection with breathing air supplied and fight fires from upwind. Use water, water spray or carbon dioxide to extinguish fires. Use water to cool containers exposed to fire. If containers are damaged, use water to wet down the exposed product.

When contact with smoke and fumes cannot be avoided, wear full protective equipment such as butyl rubber chemical-proof air suit, with breathing air supplied.

### PACKAGES

Du Pont ships 2-Chloro-4-aminotoluene-5-sulfonic Acid Technical in 51-gal, 325-lb net fiber drums.

DOT Hazard Classification: Not Regulated.

Freight Classification: Dye Intermediates, N.O.I.

Due to changing governmental regulations, such as those of the Department of Transportation, Department of Labor, U.S. Environmental Protection Agency and the Food and Drug Administration, references herein may be superseded. You should consult and follow the current governmental regulations, such as Hazard Classifications, Labeling, Food Use Clearances, Worker Exposure Limitations and Waste Disposal Procedures for the product described in this literature.

<sup>(1)</sup>See "A Guide to Industrial Respiratory Protection", HEW Pub. No. (NIOSH) 76-189.

## E. I. du Pont de Nemours & Co. (Inc.) • Wilmington, Delaware 19898

### U.S. Sales and Services

For placing orders or requesting additional product information, please use our convenient 24-hour toll-free telephone number. If you prefer, you can write to us.

#### BY PHONE

Toll free in continental U.S.  
(except Delaware)  
(800) 441-9442  
In Delaware  
(302) 774-2099

#### BY MAIL

E. I. du Pont de Nemours & Co. (Inc.)  
Chemicals and Pigments Dept.  
Customer Service Center  
Wilmington, DE 19898

### International Sales Offices

#### CANADA

Du Pont Canada Inc.  
Box 660  
Montreal S, P.Q. H3C 2V1  
(514) 861-3861

Du Pont Canada Inc.  
P.O. Box 2300  
Streetsville Postal Station  
Mississauga, Ontario  
L5M 2J4  
(416) 821-5570

#### LATIN AMERICA

E. I. du Pont de Nemours  
& Co. (Inc.)  
Chemicals and  
Pigments Dept.  
Latin America Sales Office  
Brandywine Building  
Wilmington, DE 19898  
(302) 774-3403

#### EUROPE

Du Pont de Nemours  
International S.A.  
P.O. Box  
CH-1211  
Geneva 24, Switzerland  
022-378111

#### ASIA-PACIFIC

Du Pont Far East, Inc.  
Kowa Building No. 2  
11-39 Akasaka 1-chome  
Minato-ku  
Tokyo 107, Japan  
585-5511

Du Pont Far East, Inc.  
Maxwell Road  
P.O. Box 3140  
Singapore 9051  
273-2244



E. I. du Pont de Nemours and Co., Inc.  
Haskell Laboratory for Toxicology and Industrial Medicine  
Elkton Road, P. O. Box 50,  
Newark, Delaware 19711

HASKELL LABORATORY REPORT NO. 650-82

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Material Tested\*  
Benzenesulfonic acid,  
2-amino-4-chloro-5-methyl-

Study Initiated/Completed  
7/23/82-8/10/82

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INHALATION APPROXIMATE LETHAL CONCENTRATION (ALC)

Summary: Groups of 6 male Crl:CD® rats were exposed for single 4-hour periods to dust atmospheres of 2-amino-4-chloro-5-methylbenzenesulfonic acid (Lithosol® Red 2B Acid). An approximate lethal concentration could not be determined since no deaths occurred at 13 mg/L, the highest concentration which could be generated under these experimental conditions. This material is no worse than slightly toxic according to Haskell Laboratory Toxicity Classifications.

Introduction: The purpose of this study was to determine an ALC for Lithosol® Red 2B Acid.

Procedure: Male Crl:CD® rats were housed 2 per cage in 8" x 8" x 14" stainless steel wire mesh cages. Purina® Certified Rodent Chow #5002 and water were available *ad libitum*. Rats were weighed and observed for general suitability for at least 1 week prior to testing.

Groups of 6 rats, 7-8 weeks old and weighing 223-258 grams, were exposed nose-only for single 4-hour periods to atmospheres of Lithosol® Red 2B Acid in air. During exposure all rats were observed, clinical signs noted, and chamber oxygen content and temperature monitored. Following exposure, all surviving rats were weighed and observed for 14 days.

002545

Atmospheric Generation: Dust atmospheres were generated by passing air through a 3-stage vertical glass generator composed of a dust reservoir, a cyclone elutriator, and a settling chamber. A stirring rod with plastic paddles agitated the dust in the first 2 stages. Air introduced at the bottom of the reservoir carried dust particles upward to the elutriator. Additional air swept airborne dust from the elutriator stage through the settling chamber and into the 30-liter glass exposure chamber. A vacuum pump pulled exhaust from the chamber and through a glass fiber filter and an MSA charcoal filter.

Atmospheric Analysis: Samples of chamber atmosphere were collected at 30-minute intervals. Calibrated volumes of atmosphere were drawn through preweighed Gelman glass fiber filters. The atmospheric concentration of test material was determined from filter weight gain. Particle size characteristics (mass median diameter and percent respirable particulate) were determined with a Sierra Cascade Impactor during each exposure.

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Results:

<u>Concentration (mg/L)</u>			<u>% Respirable</u>	<u>Mass Median Diameter (<math>\mu</math>)</u>	<u>Mortality # Deaths/# Exposed</u>
<u>Mean</u>	<u>S.D.</u>	<u>Range</u>			
4.8	3.1	2.2-11	73	2.0	0/6
12	7.4	1.7-21	45	5.0	0/6
13	3.8	5.0-18	60	8.3	0/6

Observations: Rats exposed to Lithosol® Red 2B Acid showed slight weight loss 24 hours post exposure followed by weight gain. An approximate lethal concentration could not be determined since no deaths occurred at 13 mg/L, the highest concentration which could be generated under these experimental conditions. This material is no worse than slightly toxic according to Haskell Laboratory Toxicity Classifications.

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Composition:

\* Synonym: Lithosol® Red 2B Acid

Purity: 97%

Contaminant Present: 2-Chloro-4-aminotoluene acid sulfate

CAS Registry Number: 88-51-7

Work and Report by: Dale T. Turner  
Dale T. Turner  
Technician

Supervised by: Rayanne L. Ferenz  
Rayanne L. Ferenz  
Toxicologist

Reviewed by: Bruce A. Burgess  
Bruce A. Burgess  
Research Toxicologist  
Study Director

Approved by: Gerald L. Kennedy, Jr.  
Gerald L. Kennedy, Jr.  
Section Supervisor  
Acute Investigations

DTT:jtd:W7:3.24  
Date Issued: October 22, 1982

Haskell Lab. Report No. 650-82

002517

002518

E. I. du Pont de Nemours and Company  
Haskell Laboratory for Toxicology and Industrial Medicine  
Elkton Road, Newark, Delaware 19711

HASKELL LABORATORY REPORT NO. 926-80

Material Tested  
Benzenesulfonic acid, 2-amino-  
4-chloro-5-methyl-\*

Study Initiated/Completed  
9/24/80 - 9/26/80

SKIN IRRITATION TEST ON RABBITS

Procedure: Six male albino rabbits were clipped free of hair on the trunk and lateral area and placed in FDA-type stocks. Doses of 0.5 g of test material, moistened with saline were applied to intact skin under 1 1/2" x 1 1/2" 12-ply gauze squares. Rubber sheeting was then loosely wrapped around the trunk and secured with adhesive tape. After 24 hours, the rabbits were removed from the stocks, the patches taken off and the reactions observed. Observations were also made at 48 hours.

Results:

<u>24-Hour Observation</u>		<u>48-Hour Observation</u>	
<u>Erythema</u>	<u>Edema</u>	<u>Erythema</u>	<u>Edema</u>
Mild 2/6	None 6/6	Slight 1/6	None 6/6
Slight 1/6		None 5/6	
None 3/6			

Summary: Benzenesulfonic acid, 2-amino-4-chloro-5-methyl- showed mild to no skin irritation in 24 hrs and slight to no skin irritation in 48 hrs when tested on the skin of 6 male rabbits.

No unusual dermatitis hazard is expected from handling this material if good industrial hygiene practices are employed.

001675

\* Synonym: Lithosol Red 2B Acid

Purity: > 97%

Report by: John E. Henry  
John E. Henry  
Technician

Approved by: Gerald L. Kennedy  
Gerald L. Kennedy  
Chief, Acute Investigations Section

JEH:jrg  
Study Director: O. L. Dashiell  
Date Issued: November 17, 1980

Report No. 926-80

001676

C Report 2-48

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January 20, 1948

RED 2B

(Skin Tests)

Skin tests have been carried out on guinea pigs with three compounds submitted as per your letter of November 11, 1947. In addition, Red Lake SD-48467 has been included in these tests. The standard procedure for these tests is as follows:

A group of 10 guinea pigs is patch tested for 24 hours with the material, and the results observed at the end of this period. (In this test a paste was made of each compound with 95% ethyl alcohol and applied to a clipped area near the shoulders.) A series of six subcutaneous injections (3 per week) of 1 to 2 milligrams of the compound is then given, following which the guinea pigs are allowed to rest for 10 days. At the end of the 10-day period, the guinea pigs are again patch tested for 24 hours, and a comparison of the initial test and final test will indicate whether the guinea pigs have become sensitized to the compound.

Samples RT-428-D, <sup>RT</sup>455-D, <sup>RM</sup>417-D and Red Lake SD-48467 did not produce any reactions in the initial or final tests, indicating they are not irritant to guinea pig skin and do not sensitize.

While it is not possible to translate these results directly to humans, the tests indicate that these four compounds are of a low order of activity as far as the skin is concerned. Ordinarily we amplify the guinea pig tests with a final test on 200 humans, the cost of which runs around \$1,500. With a negative experience of 10 years with these compounds as far as human skin dermatitis is concerned, I doubt if you would be justified in carrying out further tests on the basis of one complaint of dermatitis from the use of these compounds.

Haskell Laboratory of  
Industrial Toxicology

John H. Foulger, M. D.  
Director

BY: Allan J. Fleming, M.D.  
Assistant Director

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January 20, 1948

RED 25

(Skin Tests)

Skin tests have been carried out on guinea pigs with three compounds submitted as per your letter of November 11, 1947. In addition, Red Lake SD-48467 has been included in these tests. The standard procedure for these tests is as follows:

A group of 10 guinea pigs is patch tested for 24 hours with the material, and the results observed at the end of this period. (In this test a paste was made of each compound with 95% ethyl alcohol and applied to a clipped area near the shoulders.) A series of six subcutaneous injections (3 per week) of 1 to 2 milligrams of the compound is then given, following which the guinea pigs are allowed to rest for 10 days. At the end of the 10-day period, the guinea pigs are again patch tested for 24 hours, and a comparison of the initial test and final test will indicate whether the guinea pigs have become sensitized to the compound.

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Haskell Laboratory of  
Industrial Toxicology

John H. Foulger, M. D.  
Director

BY: Allan J. Fleming, M.D.  
Assistant Director

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E. I. du Pont de Nemours and Company  
Haskell Laboratory for Toxicology and Industrial Medicine  
Elkton Road, Newark, Delaware 19711

HASKELL LABORATORY REPORT NO. 924-80

Material Tested

Benzenesulfonic acid, 2-amino-  
4-chloro-5-methyl-\*

Study Initiated/Completed

9/16/80 - 10/20/80

ORAL LD50 TEST IN RATS

Procedure: The test material, as a suspension in corn oil, was administered by intragastric intubation in single doses to a group of 10 young adult CrI:CD<sup>1</sup> male rats. A Range Finding Study was conducted to determine the initial dose level for the LD50 test.\*\* The surviving rats were weighed and observed during a 14-day recovery period and then sacrificed.

Results:

<u>Dose</u> <u>(mg/kg)</u>	<u>Average Body</u> <u>Weight (g)</u>	<u>Suspension</u> <u>(%)</u>	<u>Average</u> <u>Dose (ml)</u>	<u>Mortality</u> <u>Ratio</u>	<u>LD50</u>
7,500	245	40	4.59	1/10	> 7,500 mg/kg

Clinical Signs: Diarrhea, stained and wet perineal area, stained face, and slight-moderate weight loss. Death occurred on 4th day after dosing.

Summary: Benzenesulfonic acid, 2-amino-4-chloro-5-methyl- has very low toxicity when administered orally to young adult CrI:CD<sup>1</sup> male rats in single doses. Its LD50 is greater than 7,500 mg/kg of body weight, the maximum feasible dose. Clinical signs included: diarrhea, stained and wet perineal area, stained face, and slight-moderate weight loss. Death occurred on 4th day after dosing.

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001672

\* Purity: 97%

Synonyms: Lithosol Red 2B Acid

\*\* A Range Finding Study was conducted using one rat/dose level from 670 to 7,500 mg/kg (the maximum feasible dose) and produced no deaths.

Report by: \_\_\_\_\_

*John A. Hall*  
John A. Hall  
Technician

Approved by: \_\_\_\_\_

*Gerald L. Kennedy*  
Gerald L. Kennedy  
Chief, Acute Investigations Section

JAH:jrg  
Study Director: O. L. Dashfield  
Date Issued: November 17, 1980

Report No. 924-80

001672

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