

Material Safety Data Sheet

Issuing Date 5/18/2011 Revision Date 8/6/2012 Revision Number 2

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name DPD #1 TABLET

Product Code(s) 6903

Recommended Use Test kit reagent for water testing. Industrial (not for food or food contact use).

Company LaMotte Company, Inc.

802 Washington Avenue

P.O. Box 329

Chestertown, MD 21620

USA

Emergency Telephone Number 24 Hour Emergency Number (CHEM-TEL):

USA, Canada, Puerto Rico 1-800-255-3924

Outside North American Continent (Call collect) 813-248-0585

2. HAZARDS IDENTIFICATION

Emergency Overview

Harmful if swallowed

May cause skin, eye, and respiratory tract irritation

May produce an allergic reaction

Appearance White Physical State Solid, Tablet Odor Odorless

OSHA Regulatory Status While this material is not considered hazardous by the OSHA Hazard Communication

Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for

employees and other users of this product.

Potential Health Effects

Principle Routes of Exposure Skin contact, Ingestion.

Acute Toxicity

Eyes May cause irritation.
Skin May cause irritation.

Inhalation May cause irritation of respiratory tract.

Ingestion May be harmful if swallowed.

Chronic Effects May produce an allergic reaction.

Main Symptoms Symptoms Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling

of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing.

Aggravated Medical Conditions None known.

Interactions with Other Chemicals None known.

Environmental Hazard No information available.

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3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS-No | Weight % |
|--|------------|----------|
| N,N-Diethyl-p-phenylenediamine sulfate | 6283-63-2 | 1 |
| Polyamino carboxylic acid | - | 0 - 10% |
| Aromatic carboxylic acid salt | - | 1-5 |
| Phosphate salt | - | 5-10 |
| Boric acid | 10043-35-3 | 8 |
| Carboxylic acid | - | 15-25 |
| Carbonate salt | - | 20-30 |
| Potassium salt | - | 25-30 |

Ingredients not specifically listed by name are proprietary to the LaMotte Company, registered under the State of New Jersey Trade Secret protection law, assigned the NJTSRN#80100291-5002p, and may be disclosed only in a medical emergency.

4. FIRST AID MEASURES

General Advice Do not get in eyes, on skin, or on clothing.

Eye Contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.

If irritation persists or develops, contact a physician.

Skin Contact Wash off immediately with soap and plenty of water for at least 15 minutes. If irritation

develops or persists, consult physician.

Inhalation Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial

respiration and contact emergency personnel. Call a physician immediately.

Ingestion Do not induce vomiting without medical advice. Drink plenty of water. Clean mouth with

water. Never give anything by mouth to an unconscious person. Consult a physician.

Protection of First-aidersUse personal protective equipment. See Section 8 for more detail. Do not use

mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper

respiratory medical device.

5. FIRE-FIGHTING MEASURES

Flammable Properties Not a fire hazard. Flash Point Not applicable

Suitable Extinguishing Media Water spray, dry chemical, carbon dioxide (CO₂), or foam.

Explosion Data

NFPA Health Hazard 1 Flammability 0 Stability 0 Physical and Chemical

Hazards N/A

HMIS Health Hazard 1 Flammability 0 Stability 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Refer to Section 8.

Methods for Containment Sweep up in a manner that does not dispurse dust and shovel into suitable containers for

disposal. Dispose according to federal, state, and local regulations.

flush away traces with water.

7. HANDLING AND STORAGE

Handling Handle in accordance with good industrial hygiene and safety practice. Prevent contact with

skin, eyes, and clothing. Do not ingest. Do not eat, drink, or smoke when using this product.

Storage Keep containers tightly closed in a dry, cool, and well-ventilated place. Keep out of the

reach of children. Keep away from direct sunlight.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

| Chemical Name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|--|--------------------------------|------------|------------|
| N,N-Diethyl-p-phenylenediamine sulfate 6283-63-2 | None Known | None Known | None Known |
| Polyamino carboxylic acid | None Known | None Known | None Known |
| Aromatic carboxylic acid salt | None Known | None Known | None Known |
| Phosphate salt | None Known | None Known | None Known |
| Boric acid 10043-35-3 | = 6 mg/m³ STEL TWA: 2 mg/m³ | None Known | None Known |
| Carboxylic acid | None Known | None Known | None Known |
| Carbonate salt | None Known | None Known | None Known |
| Potassium salt | None Known | None Known | None Known |

Engineering Measures None under normal use conditions.

Personal Protective Equipment

Eye/Face Protection Safety glasses with side-shields. Avoid contact with eyes.

Skin and Body Protection Wear latex or nitrile gloves.

Respiratory Protection None required under normal usage.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice. Avoid contact with

skin, eyes and clothing. Wear suitable gloves and eye/face protection. Wash hands before

breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance White Odor Odorless

Physical State Solid, Tablet pH 6 (1 tablet in 10mL of water)

Flash Point Not applicable Autoignition Temperature Not applicable

Boiling Point/Range No information available Freezing Point No information available

Explosion Limits Not applicable

Molecular Weight No data available Water Solubility Soluble in water

10. STABILITY AND REACTIVITY

Stability Stable.

Incompatible Products

None known based on information supplied.

Conditions to Avoid Exposure to air or moisture over prolonged periods. Direct sunlight.

Hazardous Decomposition Products None under normal use.

Hazardous Polymerization

Hazardous polymerization does not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Product Information

Product does not present an acute toxicity hazard based on known or supplied information.

LD50 Oral VALUE (mg/kg)

Oral Rat LD50: 195mg/kg for N,N-Diethyl-p-phenylenediamine sulfate

| Chemical Name | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|--|------------------|---------------------|-----------------|
| N,N-Diethyl-p-phenylenediamine sulfate | None Known | None Known | None Known |
| Polyamino carboxylic acid | 2 g/kg (Rat) | None Known | None Known |
| Aromatic carboxylic acid salt | None Known | None Known | None Known |
| Phosphate salt | None Known | 4640 mg/kg (Rabbit) | None Known |
| Boric acid | 2660 mg/kg (Rat) | 2000 mg/kg (Rabbit) | None Known |
| Carboxylic acid | 3000 mg/kg (Rat) | None Known | None Known |
| Carbonate salt | 1440 mg/kg (Rat) | 1.87 mg/kg (Rat) | None Known |
| Potassium salt | 2600 mg/kg (Rat) | None Known | None Known |

Chronic Toxicity

Chronic Toxicity

May produce an allergic reaction.

| Chemical Name | ACGIH | IARC | NTP | OSHA |
|---|------------|------------|------------|------------|
| N,N-Diethyl-p-phenylenedia mine sulfate | None Known | None Known | None Known | None Known |
| Polyamino carboxylic acid | None Known | None Known | None Known | None Known |
| Aromatic carboxylic acid salt | None Known | None Known | None Known | None Known |
| Phosphate salt | None Known | None Known | None Known | None Known |
| Boric acid | None Known | None Known | None Known | None Known |
| Carboxylic acid | None Known | None Known | None Known | None Known |
| Carbonate salt | None Known | None Known | None Known | None Known |
| Potassium salt | None Known | None Known | None Known | None Known |

| Chemical Name | EU - Endocrine Disrupters Candidate List | EU - Endocrine Disruptors - Evaluated Substances | Japan - Endocrine Disruptor Information |
|--|---|---|--|
| N,N-Diethyl-p-phenylenediamine sulfate | None Known | None Known | None Known |
| Polyamino carboxylic acid | None Known | None Known | None Known |
| Aromatic carboxylic acid salt | None Known | None Known | None Known |
| Phosphate salt | None Known | None Known | None Known |
| Boric acid | None Known | None Known | None Known |
| Carboxylic acid | None Known | None Known | None Known |
| Carbonate salt | None Known | None Known | None Known |
| Potassium salt | None Known | None Known | None Known |

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12. ECOLOGICAL INFORMATION

Ecotoxicity

No information available.

| Chemical Name | Toxicity | to Algae | Toxicity to Fish | Microtox | Daphnia Magna (Water Flea) |
|--|-------------------------------|-------------|--|-----------------------|--|
| N,N-Diethyl-p-phenylenedia mine sulfate | None | Known | None Known | None Known | None Known |
| Polyamino carboxylic acid | None | Known | LC50= 159 mg/L Lepomis macrochirus 96 h LC50= 320 mg/L Poecilia reticulata 96 h | EC50 = 56 mg/L 8 h | None Known |
| Aromatic carboxylic acid salt | None | Known | None Known | None Known | None Known |
| Phosphate salt | None | Known | None Known | None Known | None Known |
| Boric acid | None Known | | None Known | None Known | EC50 658 - 875 mg/L 48 h EC50 = 115.0 mg/L 48 h |
| Carboxylic acid | None Known | | LC50= 1516 mg/L Lepomis macrochirus 96 h LC50= 440 mg/L Leuciscus idus 96 h | EC50 = 14 mg/L 15 min | EC50 = 120 mg/L 72 h |
| Carbonate salt | None | Known | None Known | None Known | None Known |
| Potassium salt | EC50 = 250 | 0 mg/L 72 h | LC50= 2010 mg/L Lepomis macrochirus 96 h | None Known | EC50 = 825 mg/L 48 h |
| Chemical Name |) | | Log Pow | | • |
| N,N-Diethyl-p-phenylenedia | mine sulfate | | None Known | | |
| Polyamino carboxylic | acid | | None Known | | |
| Aromatic carboxylic ad | Aromatic carboxylic acid salt | | None Known | | |
| Phosphate salt | Phosphate salt | | None Known | | |
| Boric acid | | | = -0.757 25 °C | | |
| Carboxylic acid | | -1.72 20 °C | | | |
| Carbonate salt | | | None Known | | |
| Potassium salt | | | None Known | | |

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method

Dispose of in accordance with local regulations.

Contaminated Packaging

Dispose of in accordance with local regulations.

| Chemical Name | RCRA - Halogenated Organic Compounds | RCRA - P Series Wastes | RCRA - F Series Wastes | RCRA - K Series Wastes |
|--|---|------------------------|------------------------|------------------------|
| N,N-Diethyl-p-phenylenedia mine sulfate - 6283-63-2 | None Known | None Known | None Known | None Known |
| Polyamino carboxylic acid - | None Known | None Known | None Known | None Known |
| Aromatic carboxylic acid salt | None Known | None Known | None Known | None Known |
| Phosphate salt - | None Known | None Known | None Known | None Known |
| Boric acid - 10043-35-3 | None Known | None Known | None Known | None Known |
| Carboxylic acid - | None Known | None Known | None Known | None Known |
| Carbonate salt - | None Known | None Known | None Known | None Known |
| Potassium salt - | None Known | None Known | None Known | None Known |

14. TRANSPORT INFORMATION

DOT Not regulated

IATA Not regulated

IMDG/IMO Not regulated

Product Code(s) 6903

15. REGULATORY INFORMATION

International Inventories

| Component | TSCA | DSL | EINECS/ELIN CS | ENCS | IECSC | KECL | PICCS | AICS |
|---|---------|-----|-------------------|-------------------|-------|----------|-------|------|
| N,N-Diethyl-p-phenyle nediamine sulfate 6283-63-2 (1) | TSCA | DSL | Х | 3-243 | Х | KECL | Х | Х |
| Polyamino carboxylic acid (0 - 10%) | Present | Х | Х | 2-1265 | Х | KE-13651 | Х | Х |
| Aromatic carboxylic acid salt (1-5) | Present | Х | X | 3-1272; 3-1293 | Х | KE-02710 | Х | Х |
| Phosphate salt (5-10) | Present | Х | Х | 1-452 | Х | KE-28622 | Х | Х |
| Boric acid 10043-35-3 (8) | Present | Х | Х | 1-63 | Х | KE-03499 | Х | Х |
| Carboxylic acid (15-25) | Present | Х | Х | 2-1318 | Х | KE-20831 | Х | Х |
| Carbonate salt (20-30) | Present | Х | Х | 1-153 | Х | KE-29083 | Х | Х |
| Potassium salt (25-30) | Present | Х | Х | 1-228 | Х | KE-29086 | Х | X |

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

| Chemical Name | CAS-No | Weight % | SARA 313 - Threshold Values % |
|--|------------|----------|----------------------------------|
| N,N-Diethyl-p-phenylenediamine sulfate | 6283-63-2 | 1 | None Known |
| Polyamino carboxylic acid | | 0 - 10% | None Known |
| Aromatic carboxylic acid salt | | 1-5 | None Known |
| Phosphate salt | | 5-10 | None Known |
| Boric acid | 10043-35-3 | 8 | None Known |
| Carboxylic acid | | 15-25 | None Known |
| Carbonate salt | | 20-30 | None Known |
| Potassium salt | | 25-30 | None Known |

SARA 311/312 Hazard Categories

Acute Health Hazard

Chronic Health Hazard

Fire Hazard

Sudden Release of Pressure Hazard

No

Reactive Hazard

No

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

| Component | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|--|--------------------------------|------------------------|---------------------------|-------------------------------|
| N,N-Diethyl-p-phenylenediamine sulfate 6283-63-2 (1) | None Known | None Known | None Known | None Known |
| Polyamino carboxylic acid (0 - 10%) | None Known | None Known | None Known | None Known |
| Aromatic carboxylic acid salt (1-5) | None Known | None Known | None Known | None Known |

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| Phosphate salt (5-10) | None Known | None Known | None Known | None Known |
|--------------------------------|------------|------------|------------|------------|
| Boric acid 10043-35-3 (8) | None Known | None Known | None Known | None Known |
| Carboxylic acid (15-25) | None Known | None Known | None Known | None Known |
| Carbonate salt (20-30) | None Known | None Known | None Known | None Known |
| Potassium salt (25-30) | None Known | None Known | None Known | None Known |

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)
This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.

| Chemical Name | CAS-No | Weight % | HAPS data | VOC Chemicals | Class 1 Ozone Depletors | Class 2 Ozone Depletors |
|---|------------|----------|------------|---------------|----------------------------|----------------------------|
| N,N-Diethyl-p-phenyle nediamine sulfate | 6283-63-2 | 1 | None Known | None Known | None Known | None Known |
| Polyamino carboxylic acid | | 0 - 10% | None Known | None Known | None Known | None Known |
| Aromatic carboxylic acid salt | | 1-5 | None Known | None Known | None Known | None Known |
| Phosphate salt | | 5-10 | None Known | None Known | None Known | None Known |
| Boric acid | 10043-35-3 | 8 | None Known | None Known | None Known | None Known |
| Carboxylic acid | | 15-25 | None Known | None Known | None Known | None Known |
| Carbonate salt | | 20-30 | None Known | None Known | None Known | None Known |
| Potassium salt | | 25-30 | None Known | None Known | None Known | None Known |

CERCLA

| Chemical Name | Hazardous Substances RQs | Extremely Hazardous Substances RQs |
|--|--------------------------|------------------------------------|
| N,N-Diethyl-p-phenylenediamine sulfate | None Known | None Known |
| Polyamino carboxylic acid | None Known | None Known |
| Aromatic carboxylic acid salt | None Known | None Known |
| Phosphate salt | None Known | None Known |
| Boric acid | None Known | None Known |
| Carboxylic acid | None Known | None Known |
| Carbonate salt | None Known | None Known |
| Potassium salt | None Known | None Known |

U.S. State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

| Chemical Name | CAS-No | California Prop. 65 |
|--|------------|---------------------|
| N,N-Diethyl-p-phenylenediamine sulfate | 6283-63-2 | None Known |
| Polyamino carboxylic acid | | None Known |
| Aromatic carboxylic acid salt | | None Known |
| Phosphate salt | | None Known |
| Boric acid | 10043-35-3 | None Known |
| Carboxylic acid | | None Known |
| Carbonate salt | | None Known |
| Potassium salt | | None Known |

| Chemical Name | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|---|---------------|------------|--------------|------------|--------------|
| N,N-Diethyl-p-phenylenedia mine sulfate | None Known | None Known | None Known | None Known | None Known |
| Polyamino carboxylic acid | None Known | None Known | None Known | None Known | None Known |
| Aromatic carboxylic acid salt | None Known | None Known | None Known | None Known | None Known |
| Phosphate salt | None Known | None Known | None Known | None Known | None Known |

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| Boric acid | None Known | Х | None Known | None Known | None Known |
|-----------------|------------|------------|------------|------------|------------|
| Carboxylic acid | None Known |
| Carbonate salt | None Known |
| Potassium salt | None Known |

International Regulations

Mexico - Grade

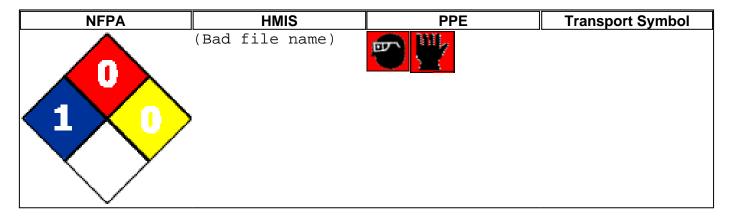
| Chemical Name | Carcinogen Status | Exposure Limits |
|--|-------------------|-----------------|
| N,N-Diethyl-p-phenylenediamine sulfate | None Known | None Known |
| Polyamino carboxylic acid | None Known | None Known |
| Aromatic carboxylic acid salt | None Known | None Known |
| Phosphate salt | None Known | None Known |
| Boric acid | None Known | None Known |
| Carboxylic acid | None Known | None Known |
| Carbonate salt | None Known | None Known |
| Potassium salt | None Known | None Known |

Canada

| Component | WHMIS Hazard Class |
|---|---|
| N,N-Diethyl-p-phenylenediamine sulfate 6283-63-2 (1) | Not determined |
| Polyamino carboxylic acid (0 - 10%) | Uncontrolled product according to WHMIS classification criteria |
| Aromatic carboxylic acid salt (1-5) | Not determined |
| Phosphate salt (5-10) | Uncontrolled product according to WHMIS classification criteria |
| Boric acid 10043-35-3 (8) | 1 % D2A |
| Carboxylic acid (15-25) | 1 % E |
| Carbonate salt (20-30) | 1 % D2B E |
| Potassium salt (25-30) | Uncontrolled product according to WHMIS classification criteria |



16. OTHER INFORMATION



Prepared By Issuing Date Revision Date Revision Note Regulatory Affairs Department 5/18/2011

5/18/2011 07-Aug-2012

Initial Release. (M)SDS sections updated. 3.

Disclaimer

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of MSDS