

Issuing Date 12/9/2011

Revision Number 0

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name NITRATE REAGENT #2
Product Code(s) 5147
Synonyms none / ninguno / aucun
Recommended Use Test kit reagent. 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

May be harmful if swallowed, inhaled, or absorbed through skin
 May cause skin, eye, and respiratory tract irritation

Appearance Off-white

Physical State Powder

Odor Odorless

Potential Health Effects
Principle Routes of Exposure Skin contact, Ingestion, and, Inhalation.

Acute Toxicity

Eyes May cause irritation. May cause redness, itching, and pain.
Skin May be harmful in contact with skin. May cause eye/skin irritation.
Inhalation May be harmful if inhaled. May cause irritation of respiratory tract.
Ingestion May be harmful if swallowed. Ingestion may cause irritation to mucous membranes.

Chronic Effects

No known effect None known

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
Zinc; Zinc Dust	7440-66-6	<1
N-(1-Naphthyl)ethylenediamine dihydrochloride	1465-25-4	<1
Sulfanilamide	63-74-1	<1
Manganese sulfate monohydrate	10034-96-5	1-5
Sucrose	57-50-1	25-35
Barium sulfate	7727-43-7	60-70

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. Consult a physician.
Skin Contact	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Remove and wash contaminated clothing before re-use. Consult a physician.
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and contact emergency personnel.
Ingestion	Never give anything by mouth to an unconscious person. Drink plenty of water. Consult a physician.
Protection of First-aiders	Use 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

Flash Point	No information available			
Suitable Extinguishing Media	Water spray, dry chemical, carbon dioxide (CO ₂), or foam.			
Explosion Data	Fine dust dispersed in air, in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.			
Sensitivity to Static Discharge				
NFPA	Health Hazard 1	Flammability 1	Stability 0	Physical and Chemical Hazards N/A
HMIS	Health Hazard 1	Flammability 1	Stability 0	

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Refer to Section 8. Wear protective gloves/clothing and eye/face protection. Ensure adequate ventilation.
Methods for Cleaning Up	Avoid dust formation. Sweep up and shovel into suitable containers for disposal. After cleaning, 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 away from heat, moisture, and incompatibles. Keep away from heat. Keep out of the reach of children.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Zinc; Zinc Dust 7440-66-6	None Known	None Known	None Known

N-(1-Naphthyl)ethylenediamine dihydrochloride 1465-25-4	None Known	None Known	None Known
Sulfanilamide 63-74-1	None Known	None Known	None Known
Manganese sulfate monohydrate 10034-96-5	TWA: 0.2 mg/m ³	None Known	IDLH: 500 mg/m ³ TWA: 1 mg/m ³ STEL: 3 mg/m ³
Sucrose 57-50-1	TWA: 10 mg/m ³	TWA: 15 mg/m ³ TWA: 5 mg/m ³	TWA: 5 mg/m ³ TWA: 10 mg/m ³
Barium sulfate 7727-43-7	TWA: 10 mg/m ³	TWA: 5 mg/m ³	TWA: 5 mg/m ³ TWA: 10 mg/m ³

Engineering Measures

Showers. Eyewash stations. Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment**Eye/Face Protection**

Safety glasses with side-shields.

Skin and Body Protection

Gloves & Lab Coat.

Respiratory Protection

None required under normal usage. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

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 and face before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Off-white	Odor	Odorless
Physical State	Powder	pH	6 (0.1g/10mL water)
Flash Point	No information available	Autoignition Temperature	No data available
Boiling Point/Range	No data available	Freezing Point	No information available
Explosion Limits	Not applicable		
Molecular Weight	No data available	Water Solubility	Partly soluble
Vapor Pressure	No data available	Vapor Density	No data available

10. STABILITY AND REACTIVITY**Stability** Stable under normal conditions of use and storage.**Incompatible Products** Strong acids. Strong oxidizing agents.**Conditions to Avoid** Heat, flames and sparks. Exposure to air or moisture over prolonged periods.**Hazardous Decomposition Products** Thermal decomposition can lead to release of toxic/corrosive gases and vapors. Sulfur oxides (SO_x). Barium oxides. Carbon oxides (CO_x).**Hazardous Polymerization** Hazardous polymerization does not occur.**11. TOXICOLOGICAL INFORMATION****Acute Toxicity**

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Zinc; Zinc Dust	None Known	None Known	None Known
N-(1-Naphthyl)ethylenediamine dihydrochloride	None Known	None Known	None Known

Sulfanilamide	3900 mg/kg (Rat)	None Known	None Known
Manganese sulfate monohydrate	None Known	None Known	None Known
Sucrose	29700 mg/kg (Rat)	None Known	None Known
Barium sulfate	None Known	None Known	None Known

Chronic Toxicity

Chronic Toxicity No known effect. None known.

Chemical Name	ACGIH	IARC	NTP	OSHA
Zinc; Zinc Dust	None Known	None Known	None Known	None Known
N-(1-Naphthyl)ethylenediamine dihydrochloride	None Known	None Known	None Known	None Known
Sulfanilamide	None Known	None Known	None Known	None Known
Manganese sulfate monohydrate	None Known	None Known	None Known	None Known
Sucrose	None Known	None Known	None Known	None Known
Barium sulfate	None Known	None Known	None Known	None Known

Endocrine Disruptor Information

Chemical Name	EU - Endocrine Disruptors Candidate List	EU - Endocrine Disruptors - Evaluated Substances	Japan - Endocrine Disruptor Information
Zinc; Zinc Dust	None Known	None Known	None Known
N-(1-Naphthyl)ethylenediamine dihydrochloride	None Known	None Known	None Known
Sulfanilamide	None Known	None Known	None Known
Manganese sulfate monohydrate	None Known	None Known	None Known
Sucrose	None Known	None Known	None Known
Barium sulfate	None Known	None Known	None Known

12. ECOLOGICAL INFORMATION

Ecotoxicity

Chemical Name	Toxicity to Algae	Toxicity to Fish	Microtox	Daphnia Magna (Water Flea)
Zinc; Zinc Dust	EC50 = 30 µg/L 96 h	LC50= 6.4 mg/L Pimephales promelas 96 h	None Known	EC50 = 5 µg/L 72 h
N-(1-Naphthyl)ethylenediamine dihydrochloride	None Known	None Known	None Known	None Known
Sulfanilamide	None Known	None Known	None Known	None Known
Manganese sulfate monohydrate	None Known	None Known	None Known	None Known
Sucrose	None Known	None Known	None Known	None Known
Barium sulfate	None Known	None Known	None Known	None Known

Chemical Name	Log Pow
Zinc; Zinc Dust	None Known
N-(1-Naphthyl)ethylenediamine dihydrochloride	None Known
Sulfanilamide	None Known
Manganese sulfate monohydrate	None Known
Sucrose	None Known
Barium sulfate	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
Zinc; Zinc Dust - 7440-66-6	None Known	None Known	None Known	None Known
N-(1-Naphthyl)ethylenediamine dihydrochloride - 1465-25-4	None Known	None Known	None Known	None Known
Sulfanilamide - 63-74-1	None Known	None Known	None Known	None Known
Manganese sulfate monohydrate - 10034-96-5	None Known	None Known	None Known	None Known
Sucrose - 57-50-1	None Known	None Known	None Known	None Known
Barium sulfate - 7727-43-7	None Known	None Known	None Known	None Known

14. TRANSPORT INFORMATION

DOT Not regulated

IATA Not regulated

IMDG/IMO Not regulated

15. REGULATORY INFORMATION

International Inventories

Component	TSCA	DSL	EINECS/ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Zinc; Zinc Dust 7440-66-6 (<1)	Present	X	X	ENCS	X	KE-35518	X	X
N-(1-Naphthyl)ethylenediamine dihydrochloride 1465-25-4 (<1)	Present	X	X	ENCS	X	KECL	X	X
Sulfanilamide 63-74-1 (<1)	Present	X	X	3-1913; 3-1973; 3-2179	X	KE-01188	X	X
Manganese sulfate monohydrate 10034-96-5 (1-5)	TSCA	DSL	EINECS/ELINCS	ENCS	X	KECL	X	X
Sucrose 57-50-1 (25-35)	Present	X	X	ENCS	X	KE-17258	X	X
Barium sulfate 7727-43-7 (60-70)	Present	X	X	1-89	X	KE-02092	X	X

U.S. Federal Regulations**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or 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 %
Zinc; Zinc Dust	7440-66-6	<1	1.0
N-(1-Naphthyl)ethylenediamine dihydrochloride	1465-25-4	<1	None Known
Sulfanilamide	63-74-1	<1	None Known
Manganese sulfate monohydrate	10034-96-5	1-5	1.0
Sucrose	57-50-1	25-35	None Known
Barium sulfate	7727-43-7	60-70	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

Clean Water Act

Component	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Zinc; Zinc Dust 7440-66-6 (<1)	None Known	X	X	None Known
N-(1-Naphthyl)ethylenediamine dihydrochloride 1465-25-4 (<1)	None Known	None Known	None Known	None Known
Sulfanilamide 63-74-1 (<1)	None Known	None Known	None Known	None Known
Manganese sulfate monohydrate 10034-96-5 (1-5)	None Known	None Known	None Known	None Known
Sucrose 57-50-1 (25-35)	None Known	None Known	None Known	None Known

Barium sulfate 7727-43-7 (60-70)	None Known	None Known	None Known	None Known
---------------------------------------	------------	------------	------------	------------

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product contains the following HAPs: .

Chemical Name	CAS-No	Weight %	HAPS data	VOC Chemicals	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Zinc; Zinc Dust	7440-66-6	<1	None Known	None Known	None Known	None Known
N-(1-Naphthyl)ethylenediamine dihydrochloride	1465-25-4	<1	None Known	None Known	None Known	None Known
Sulfanilamide	63-74-1	<1	None Known	None Known	None Known	None Known
Manganese sulfate monohydrate	10034-96-5	1-5	Present (includes any unique chemical substance that contains Manganese as part of its infrastructure)	None Known	None Known	None Known
Sucrose	57-50-1	25-35	None Known	None Known	None Known	None Known
Barium sulfate	7727-43-7	60-70	None Known	None Known	None Known	None Known

CERCLA

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
Zinc; Zinc Dust	1000 lb	None Known
N-(1-Naphthyl)ethylenediamine dihydrochloride	None Known	None Known
Sulfanilamide	None Known	None Known
Manganese sulfate monohydrate	None Known	None Known
Sucrose	None Known	None Known
Barium sulfate	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
Zinc; Zinc Dust	7440-66-6	None Known
N-(1-Naphthyl)ethylenediamine dihydrochloride	1465-25-4	None Known
Sulfanilamide	63-74-1	None Known
Manganese sulfate monohydrate	10034-96-5	None Known
Sucrose	57-50-1	None Known
Barium sulfate	7727-43-7	None Known

U.S. State Right-to-Know Regulations

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Zinc; Zinc Dust	X	X	X	None Known	X
N-(1-Naphthyl)ethylenediamine dihydrochloride	None Known	None Known	None Known	None Known	None Known
Sulfanilamide	None Known	None Known	None Known	None Known	None Known
Manganese sulfate monohydrate	None Known	X	X	X	None Known
Sucrose	X	None Known	X	None Known	X
Barium sulfate	X	X	X	None Known	X

International Regulations

Mexico - Grade

Chemical Name	Carcinogen Status	Exposure Limits
Zinc; Zinc Dust	None Known	None Known
N-(1-Naphthyl)ethylenediamine dihydrochloride	None Known	None Known
Sulfanilamide	None Known	None Known
Manganese sulfate monohydrate	None Known	Mexico: TWA= 0.2 mg/m ³
Sucrose	None Known	Mexico: TWA= 10 mg/m ³
Barium sulfate	None Known	Mexico: TWA= 0.5 mg/m ³

Canada

Component	WHMIS Hazard Class
Zinc; Zinc Dust 7440-66-6 (<1)	Not determined
N-(1-Naphthyl)ethylenediamine dihydrochloride 1465-25-4 (<1)	Not determined
Sulfanilamide 63-74-1 (<1)	Not determined
Manganese sulfate monohydrate 10034-96-5 (1-5)	1 % D2B
Sucrose 57-50-1 (25-35)	Uncontrolled product according to WHMIS classification criteria
Barium sulfate 7727-43-7 (60-70)	1 % Uncontrolled product according to WHMIS classification criteria



Chemical Name	NPRI
Zinc; Zinc Dust	X

16. OTHER INFORMATION

NFPA	HMIS	PPE	Transport Symbol						
	<table border="1"> <tr> <td>Health Hazard</td> <td>1</td> </tr> <tr> <td>Fire Hazard</td> <td>1</td> </tr> <tr> <td>Reactivity</td> <td>0</td> </tr> </table>	Health Hazard	1	Fire Hazard	1	Reactivity	0		
Health Hazard	1								
Fire Hazard	1								
Reactivity	0								

Prepared By Regulatory Affairs Department

Issuing Date 12/9/2011

Revision Date 12-Dec-2011

Revision Note
Initial Release

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