



Material Safety Data Sheet

Manganese Sulfate Solution # 4167

Issuing Date: 12/15/2010

Revision Number: 0

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Manganous Sulfate Solution
Product Code(s): 4167
Synonyms: none
Recommended Use: Laboratory chemicals, Industrial (not for food or food contact use), Chemical additive, Swimming pool chemicals.
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 1-800-285-3924, Outside North American Continent (Call collect) 813-248-0383

2. HAZARDS IDENTIFICATION

Emergency Overview: Harmful if swallowed, May irritate eyes and skin, Physical State: Liquid, Odor: None

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: Irritating to eyes.
Skin: Irritating to skin.
Inhalation: May cause irritation of respiratory tract.
Ingestion: Harmful if swallowed. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Chronic Effects

Chronic manganese poisoning primarily involves the central nervous system.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Table with 3 columns: Chemical Name, CAS No, Weight %
Manganese sulfate monohydrate, 10034-86-5, 38
Water, 7732-18-5, to 100%

4. FIRST-AID MEASURES

Manganous Sulfate Solution

Product Code(s) 4167

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 for at least 15 minutes while removing all contaminated clothing and shoes. Consult a 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 unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. 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

Flammable Properties

Not a fire hazard.

Flash Point

Not applicable

Suitable Extinguishing Media

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

Explosion Data

Health Hazard 1

Flammability 0

Stability 0

NFPA

Physical and Chemical Hazards -

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Refer to Section 8. Avoid contact with skin, eyes and clothing.

Methods for Containment

Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13).

Methods for Cleaning Up

Use personal protective equipment. Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13). Following product recovery, flush area with water.

7. HANDLING AND STORAGE

Handling

Handle in accordance with good industrial hygiene and safety practice. Use only in area provided with appropriate exhaust ventilation. 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 and incompatibles. Keep out of the reach of children.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Table with 3 columns: Chemical Name, ACGIH TLV, OSHA PEL, NIOSH IDLH
Manganous Sulfate Solution, ACGIH TLV, OSHA PEL, NIOSH IDLH

Manganese Sulfate Solution

Product Code(s) 4167

Manganese sulfate monohydrate 10034-98-5 Water 7732-18-5	TMVA: 02 mg/m <sup>3</sup> None Known	None Known	IDLH: 500 mg/m <sup>3</sup> TMVA: 1 mg/m <sup>3</sup> STEL: 3 mg/m <sup>3</sup> None Known
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Personal Protective Equipment

Eye/Face Protection

Skin and Body Protection

Respiratory Protection

Hygiene Measures

Appearance

Physical State

Flash Point

Boiling Point/Range

Solubility

Vapor Density

Stability

Incompatible Products

Conditions to Avoid

Hazardous Decomposition Products

Hazardous Polymerization

Acute Toxicity

Chronic Toxicity

Chemical Name

Manganese sulfate monohydrate

Water

None Known

None Known

None Known

None Known

None Known

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Chemical Name	ACGIH	IARC	NTP	OSHA
Manganese sulfate monohydrate	None Known	None Known	None Known	None Known
Water	None Known	None Known	None Known	None Known

Manganese Sulfate Solution

Product Code(s) 4167

Chemical Name	EU - Endocrine Disruptors	EU - Endocrine Disruptors - Evaluated Substances	Japan - Endocrine Disruptor Information
Manganese sulfate monohydrate	None Known	None Known	None Known
Water	None Known	None Known	None Known

Ecotoxicity

Toxicity to Algae

Toxicity to Fish

Microtox

Daphnia Magna (Water Fish)

Chemical Name

Manganese sulfate monohydrate

Water

None Known

None Known

None Known

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Chemical Name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
Manganese sulfate monohydrate	None Known	None Known	None Known	None Known
Water	None Known	None Known	None Known	None Known

DOT

Not regulated

IATA

Not regulated

IMDG/IMO

Not regulated

14. TRANSPORT INFORMATION

None Known

None Known

None Known

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Chemical Name	DOT	IATA	IMDG/IMO
Manganese sulfate monohydrate	None Known	None Known	None Known
Water	None Known	None Known	None Known

15. REGULATORY INFORMATION

None Known

None Known

None Known

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Chemical Name	TSCA	DSL	EMERGEIN	EMCS	IESSC	KECL	PICCS	ACCS
Manganese sulfate monohydrate	None Known	None Known	None Known	None Known	None Known	None Known	None Known	None Known
Water	None Known	None Known	None Known	None Known	None Known	None Known	None Known	None Known

U.S. Federal Regulations

None Known

None Known

None Known

None Known

None Known

None Known

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None Known

None Known

None Known

Manganese Sulfate Solution

Product Code(s) 4187

Chemical Name	CAS No	Weight %	SARA 313 - Threshold Values %
Manganese sulfate monohydrate	10024-98-5	36	1.0
Water	7732-18-5	16.709%	None Known

**SARA 313 Hazard Categories**

Acute Health Hazard Yes  
 Chronic Health Hazard No  
 Fire Hazard No  
 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
Manganese sulfate monohydrate	None Known	None Known	None Known	None Known
Water	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 Depleters	Class 2 Ozone Depleters
Manganese sulfate monohydrate	10024-98-5	36	Present (includes any unique chemical substance that contains Manganese as part of its infrastructure)	None known	None known	None known
Water	7732-18-5	to 100%	None Known	None Known	None Known	None Known

**CERCLA**

Chemical Name	Hazardous Substances RfDs	Extremely Hazardous Substances RfDs
Manganese sulfate monohydrate	None Known	None Known
Water	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
Manganese sulfate monohydrate	10024-98-5	None Known
Water	7732-18-5	None Known

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Manganese sulfate monohydrate	None Known	X	X	X	None Known
Water	None Known	None Known	None Known	None Known	None Known

**International Regulations**

**Mexico - Grade**

Chemical Name	Carcinogen Status	Exposure Limits

Manganese Sulfate Solution

Product Code(s) 4187

Chemical Name	None Known	Mexico: TLV-C 0.2 mg/m <sup>3</sup>
Manganese sulfate monohydrate	None Known	None Known
Water	None Known	None Known

**Canada**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

WHMIS Hazard Class Non-controlled

**16. OTHER INFORMATION**

NFPA	HMIS	PPE	Transport Symbol

Prepared By Regulatory Affairs Department

Issuing Date 12/15/2010

Revision Date

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