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Revision Number 2
EN

Section 1: IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

Product identifier

Product name MANGANOUS SULFATE SOLUTION

Product Code(s) 4167

Other means of identification

Synonyms none

Pure substance/mixture Mixture

Recommended use of the chemical and restrictions on use

Recommended Use Laboratory chemicals. Industrial (not for food or food contact use). Chemical additive. Swimming pool chemicals.

Uses advised against None

Details of manufacturer or importer

LaMotte Company, Inc.
802 Washington Avenue
P.O. Box 329
Chestertown, MD 21620 USA
T 410-778-3100
F 410-778-9748

Supplier

LaMotte Pacific Pty Ltd.
2/6 Bonz Place
Seven Hills, NSW 2147
T (02) 9624 8842
F (02) 9674 5115

Contact for timely inquiries in regards to this product

LaMotte Customer Information: system@lamotteco.com

Vendart Pty. Ltd. Customer Information: info@vendart.com.au

Emergency telephone number

24-Hour Emergency telephone number (CHEM-TEL):USA, Canada, Puerto Rico 1-800-255-3924 Outside North American Continent (Call collect) 813-248-0585

Local emergency telephone number Poisons Information Center, Australia: 13 11 26
Poisons Information Center, New Zealand: 0800 764 766

Section 2: HAZARD(S) IDENTIFICATION**GHS Classification**

Specific target organ toxicity (repeated exposure)

Category 2 - (H373)

Label elements

Health hazard

**Signal word**

WARNING

Hazard statements

H373 - May cause damage to organs through prolonged or repeated exposure.

Precautionary Statements**Prevention:** Do not breathe dust /fume /gas /mist /vapors /spray.**Response:** Get medical advice/attention if you feel unwell IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. IF SWALLOWED: Drink 1 or 2 glasses of water**Disposal:**

Dispose of contents/container to an approved waste disposal plant.

Other hazards which do not result in classification

May be harmful if swallowed. Toxic to aquatic life with long lasting effects.

Section 3: COMPOSITION & INFORMATION ON INGREDIENTS**Substance**

Not applicable

Mixture

Chemical name	CAS No	Weight-%
Manganese sulfate monohydrate	10034-96-5	36
Non-hazardous ingredients	Proprietary	Balance

Section 4: FIRST AID MEASURES**Description of first aid measures****General advice**

Show this safety data sheet to the doctor in attendance.

Local emergency telephone numberPoisons Information Center, Australia: 13 11 26
Poisons Information Center, New Zealand: 0800 764 766**Inhalation**

Remove to fresh air.

Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Skin contact	Wash skin with soap and water.
Ingestion	Clean mouth with water and drink afterwards plenty of water.

Most important symptoms and effects, both acute and delayed

Symptoms	No information available.
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Section 5: FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
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Unsuitable extinguishing media	No information available.
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Specific hazards arising from the chemical

Specific hazards arising from the chemical	No information available.
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Special protective actions for fire-fighters

Special protective equipment for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
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Hazchem code	Not Listed.
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Section 6: ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Personal precautions	Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas.
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Other Information	Refer to protective measures listed in Sections 7 and 8.
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For emergency responders	Use personal protection recommended in Section 8.
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Environmental precautions

Environmental precautions	See Section 12 for additional Ecological Information.
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Methods and material for containment and cleaning up

Methods for containment	Prevent further leakage or spillage if safe to do so.
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Methods for cleaning up	Pick up and transfer to properly labeled containers. After cleaning, flush away traces with water.
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Precautions to prevent secondary hazards

Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.
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Section 7: HANDLING AND STORAGE, INCLUDING HOW THE CHEMICAL MAY BE SAFELY USED

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Keep from freezing.

Incompatible materials None known based on information supplied.

Section 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Control parameters

Exposure Limits

Chemical name	Australia
Manganese sulfate monohydrate 10034-96-5	TWA: 1 mg/m ³

Chemical name	Australia
Manganese sulfate monohydrate 10034-96-5	*-

Appropriate engineering controls

Engineering controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin and body protection Wear suitable protective clothing.

Hand protection Wear suitable gloves. Nitrile rubber.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

Environmental exposure controls No information available.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Liquid
Appearance Clear pink
Color No information available
Odor None

Property	Values	Remarks • Method
pH	3	No information available

Melting point / freezing point	Not applicable	No information available
Boiling point / boiling range	No information available	No information available
Flash point	No information available	No information available
Evaporation rate	No information available	No information available
Flammability (solid, gas)	No information available	No information available
Flammability Limit in Air		No information available
Upper flammability limit:	No data available	
Lower flammability limit:	No data available	
Vapor pressure	No information available	
Vapor density	No information available	
Relative density	No information available	No information available
Water solubility	No information available	No information available
Solubility in other solvents	Soluble	
Partition coefficient	No information available	No information available
Autoignition temperature	No information available	No information available
Hyphen	No information available	No information available
Kinematic viscosity	No information available	No information available
Dynamic viscosity	No information available	No information available
Other information		
Softening point	No information available	
Molecular weight	No information available	
VOC Content (%)	No information available	
Density	No information available	
Bulk density	No information available	

Section 10: STABILITY AND REACTIVITY

Stability	Stable under normal conditions. Stable under recommended storage conditions.
Explosion data	
Sensitivity to Mechanical Impact	None.
Sensitivity to Static Discharge	None.
Possibility of hazardous reactions	None under normal processing.
Hazardous polymerization	Hazardous polymerization does not occur.
Conditions to avoid	None known based on information supplied.
Incompatible materials	None known based on information supplied.
Hazardous decomposition products	Sulfur oxides (SOx). Manganese oxides.

Section 11: TOXICOLOGICAL INFORMATION

Acute toxicity

Information on likely routes of exposure

Product Information	.
Inhalation	Specific test data for the substance or mixture is not available.
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available.
Ingestion	Specific test data for the substance or mixture is not available

Symptoms No information available.

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 2,172.00 mg/kg

0% of the mixture consists of ingredient(s) of unknown acute oral toxicity
 36 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
 36 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
 36 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
 36 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Manganese sulfate monohydrate	= 782 mg/kg (Rat)	-	> 4.45 mg/L (Rat) 4 h

See section 16 for terms and abbreviations

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation No information available.

Serious eye damage/eye irritation No information available.

Respiratory or skin sensitization No information available.

Germ cell mutagenicity No information available.

Carcinogenicity

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure May cause damage to organs.

Aspiration hazard No information available.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity The environmental impact of this product has not been fully investigated.

Unknown aquatic toxicity 0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Manganese sulfate monohydrate	-	-	-	-

Persistence and degradability

Persistence and degradability No information available.

Bioaccumulative potential**Bioaccumulation** No information available.

Chemical name	Partition coefficient
Manganese sulfate monohydrate	-

Mobility**Mobility in soil** No information available.**Mobility** No information available.**Other adverse effects****Other adverse effects** No information available.

Chemical name	EU - Endocrine Disruptors Candidate List	EU - Endocrine Disruptors - Evaluated Substances	Endocrine disrupting potential
Manganese sulfate monohydrate	-	-	-

Section 13: DISPOSAL CONSIDERATIONS**Waste treatment methods****Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.**Contaminated packaging** Do not reuse empty containers.**Section 14: TRANSPORT INFORMATION****ADG** Not regulated**IATA** Not regulated**IMDG/IMO** Not regulated**Section 15: REGULATORY INFORMATION****Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations****Australia**

See section 8 for national exposure control parameters

Standard for Uniform Scheduling of Medicines and Poisons (SUSMP)

No poisons schedule number allocated

National pollutant inventory

Subject to reporting requirement

Chemical name	Australia - National Pollutant Inventory (NPI) Substance List
Manganese sulfate monohydrate - 10034-96-5	10 tonne/yr Threshold category 1

International Inventories

TSCA	Complies
DSL/NDSL	Does not comply
EINECS/ELINCS	Does not comply
ENCS	Complies
IECSC	Complies
KECL	Does not comply
PICCS	Complies
AICS	Complies

Legend:**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances**ENCS** - Japan Existing and New Chemical Substances**IECSC** - China Inventory of Existing Chemical Substances**KECL** - Korean Existing and Evaluated Chemical Substances**PICCS** - Philippines Inventory of Chemicals and Chemical Substances**AICS** - Australian Inventory of Chemical Substances**International Regulations****The Montreal Protocol on Substances that Deplete the Ozone Layer** None known**The Stockholm Convention on Persistent Organic Pollutants** Not applicable**The Rotterdam Convention** Not applicable**Section 16: ANY OTHER RELEVANT INFORMATION****Prepared by** Regulatory Affairs Department**Issuing Date** Dec-12-2016**Revision Date** May-06-2022**Revision note**

MSDS was reviewed per Canada request - Canada requires MSDS to be dated within 3 years of the request.

Key or legend to abbreviations and acronyms used in the safety data sheet**Legend Section 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
C	Carcinogen		

Disclaimer

The information provided in this Safety Data Sheet was prepared to the best of our knowledge, data and belief as of the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, and disposal of the product as it relates to properly trained personnel, and is not intended to be comprehensive. It is not to be considered a warranty or quality specification. Users are advised to exercise their own judgment to determine safety, safe handling, use, processing, storage, transportation, and disposal. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of Safety Data Sheet