

MATERIAL SAFETY DATA SHEET**Product Name:** Manganous sulphate monohydrate**CAS No.:** 10034-96-5**Version:** 0**1. Identification**

Product Code : 90183, 90452
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2. Composition/Information on Ingredients

Ingredient	CAS No	Percent
MANGANOUS SULPHATE MONOHYDRATE	10034-96-5	98-100%

3. Hazards Identification**Hazard classification****Health hazards**

Specific target organ toxicity - repeated exposure : Category 2

Environmental hazards

Chronic hazards to the aquatic environment : Category 2

Labels elements**Hazard symbol**

Signal word : Warning

Hazard statement : May cause damage to organs through prolonged or repeated exposure.
Toxic to aquatic life with long lasting effects.

Precautionary statement

Prevention : Do not breathe dust/fume/gas/mist/vapors/spray. Avoid release to the environment.

Response : Get medical advice/attention if you feel unwell. Collect spillage.

Storage : Store in a well-ventilated place. Keep container tightly closed. Store

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- Disposal** : locked up.
: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
- Other hazards which do not result in GHS classification** : None.

4. First Aid Measures

- General information** : Get medical advice/attention if you feel unwell. If medical advice is needed, have product container or label at hand. Show this safety data sheet to the doctor in attendance.
- Ingestion** : Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
- Inhalation** : Move to fresh air. If breathing stops, provide artificial respiration. If breathing is difficult, give oxygen. Call a POISON CENTER or doctor/physician if you feel unwell.
- Skin contact** : Immediately remove contaminated clothing and shoes and wash skin with soap and plenty of water. Get medical attention. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.
- Eye contact** : Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Call a physician or poison control center immediately. In case of irritation from airborne exposure, move to fresh air. Get medical attention immediately.
- Most important symptoms/effects, acute and delayed** : May cause skin and eye irritation.
- Indication of immediate medical attention and special treatment needed** : Treat symptomatically. Symptoms may be delayed.

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- Precautions for safe handling** : Use personal protective equipment as required. Avoid contact with eyes, skin, and clothing. Avoid inhalation of dust. Wash thoroughly after handling. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.
- Conditions for safe storage, including any incompatibilities** : Keep containers tightly closed. Store in cool, dry place. Store in a well-ventilated place.

8. Exposure Controls Personal Protection**Control parameters**

Occupational exposure limits : None of the components have assigned exposure limits.

Appropriate engineering controls : No data available.

Individual protection measures, such as personal protective equipment

General information : Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area. Use explosion-proof ventilation equipment.

Eye/face protection : Use tight fitting goggles if dust is generated.

Hand protection : Wear protective gloves.

Other : Wear suitable protective clothing.

Respiratory protection : In case of inadequate ventilation use suitable respirator. During dust-raising work: Dust and mist respirator.

Hygiene measures : Provide eyewash station and safety shower. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

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Appearance	:	Pale pink Solid Powder.
Odor	:	Odorless
pH	:	No data available.
Melting point/freezing point	:	700 °C
Initial boiling point and boiling range	:	850 °C Decomposes
Flash Point	:	Not applicable
Vapor pressure	:	No data available.
Vapor density	:	No data available.
Relative density	:	2.95 (20 °C)
Solubility in water	:	Soluble
Solubility (other)	:	No data available.
Formula	:	MnSO ₄ .H ₂ O
Molecular Weight	:	169.02 g/mol

10. Stability and Reactivity

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	Material is stable under normal conditions.
Possibility of hazardous reactions	:	Hazardous polymerization does not occur.
Conditions to avoid	:	Contact with incompatible materials.
Incompatible materials	:	Strong oxidizing agents. Powdered metals.
Hazardous decomposition products	:	Thermal decomposition may produce oxides of sulfur.

11. Toxicological Information**Information on likely routes of exposure**

Ingestion	:	Irritating. May cause nausea, stomach pain and vomiting.
Inhalation	:	May cause irritation to the respiratory system.
Skin contact	:	May cause irritation.
Eye contact	:	Dust in the eyes will cause irritation.

Information on toxicological effects**Acute toxicity (list all possible routes of exposure)**

Oral Product	:	No data available.
Dermal Product	:	No data available.
Inhalation Product	:	No data available.
Repeated dose toxicity Product	:	No data available.
Skin corrosion/irritation Product	:	May cause skin irritation.
Serious eye damage/eye irritation	:	May irritate eyes.

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- Respiratory or skin sensitization Product** : Not a skin sensitizer.
- Carcinogenicity Product** : This substance has no evidence of carcinogenic properties.
- IARC Monographs on the Evaluation of Carcinogenic Risks to Humans DIOXANE** : No carcinogenic components identified
- US. National Toxicology Program (NTP) Report on Carcinogens DIOXANE** : No carcinogenic components identified
- US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050** : No carcinogenic components identified
- Germ cell mutagenicity**
- In vitro Product** : No mutagenic components identified
- In vivo Product** : No mutagenic components identified
- Reproductive toxicity Product** : No components toxic to reproduction.
- Specific target organ toxicity - single exposure Product** : None known.
- Specific target organ toxicity - repeated exposure Product** : Brain. - May cause damage to organs through prolonged or repeated exposure.
- Aspiration hazard Product** : Not classified.
- Other effects** : None known.

12. Ecological Information**Ecotoxicity****Acute hazards to the aquatic environment :**

- Fish Product** : No data available.
- Aquatic invertebrates Product** : No data available.

Chronic hazards to the aquatic environment :

- Fish Product** : No data available.
- Aquatic invertebrates Product** : No data available.
- Toxicity to Aquatic Plants Product:** : No data available.

Persistence and degradability

- Biodegradation Product** : The product is not expected to be biodegradable.
- BOD/COD ratio Product** : No data available.

Bioaccumulative potential

- Bioconcentration factor (BCF) Product** : No data available on bioaccumulation.

Product

- Partition coefficient n-octanol / water (log Kow) Product** : No data available.
- Mobility in soil** : No data available.
- Other adverse effects** : Toxic to aquatic life with long lasting effects.

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13. Disposal consideration

Disposal instructions : Discharge, treatment, or disposal may be subject to national, state, or local laws. Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Contaminated packaging : Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. Transport Information

	UN No.	UN proper shipping name	Hazard Class(es)	Packaging group	Marine Pollutant
DOT			Not regulated.		
IMDG			Not regulated.		
IATA			Not regulated.		

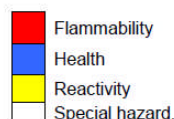
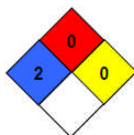
15. Regulatory Information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Safety, health and environmental regulations/legislation specific for the substance or mixture
No Data Available.

16. Other Information

NFPA Hazard ID



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe

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