



Safety Data Sheet
According to the (US) Hazard Communication Standard (29 CFR 1910.1200)

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name Manganese Sulfate Monohydrate, ACS
NCL Catalog Number M-19
Product Description Laboratory chemical
Manufacturer EMD Chemicals Inc. PO Box 70, 480 Democrat Road
Gibbstown, NJ 08027
Supplier NCL of Wisconsin, Inc. PO Box 8, Birnamwood, WI 54414
Telephone: 1-800-648-7836 Fax: 715-449-2454
Email: nclabs@nclabs.com Emergency Contact: 1-800-424-9300 (Chemtrec)

SECTION 2: HAZARDS IDENTIFICATION

GHS Classification

Specific Target Organ Toxicity Repeated Exposure Category 2
Aquatic Acute Category 2
Aquatic Chronic Category 2



Signal Word Warning

Hazard Statements

H373 May cause damage to organs through prolonged or repeated exposure.
H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements

P260 Do not breathe dust.
P273 Avoid release to the environment.
P314 Get medical advice/attention if you feel unwell.
P391 Collect spillage.
P501 Dispose of contents/container to comply with local, state and federal regulations.

Other Hazards Not Contributing to the Classification None under normal conditions.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Identity Not applicable
Common Name Not applicable

Substance

| Name | CAS # | Approximate % |
|-------------------------------|------------|---------------|
| Manganese Sulfate Monohydrate | 10034-96-5 | 100 |

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General First Aid Measures Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention.

If Inhaled Remove person to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.

In Case of Skin Contact

Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention.

In Case of Eye Contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a POISON CENTER or doctor if you feel unwell.

If Swallowed

Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor if you feel unwell.

Most Important Symptoms/Effects Acute and Delayed

No additional information available.

Indication of Immediate Medical Attention and Special Treatment Needed

Seek medical advice if you feel unwell.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable Extinguishing Media

Do not use a heavy water stream.

Special Hazards Arising from the Chemical

Carbon oxides, nitrogen oxides, and hydrogen chloride gas.

Special Protective Actions for Fire-Fighters

Wear self-contained breathing apparatus and protective clothing. Keep exposed containers cool with water spray. Dilute toxic gases with water spray.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Personal Precautions

Use personal protective equipment (see section 8). Safety glasses, gloves, gas/dust mask. Avoid dust formation. Avoid breathing dust, vapors, mist or gas. Ensure adequate ventilation and evacuate personnel to safe areas.

Environmental Precautions

Prevent entry to surface and ground waters.

Methods and Materials for Containment and Cleaning Up

Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Ensure compliance with local, state and federal regulations.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Avoid contact with eyes and skin. Avoid breathing vapors. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.

Conditions for Safe Storage Including any Incompatibilities

Keep in original container, tightly closed and stored in a cool, dry, ventilated area. Store away from oxidizing agents and metals.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Not applicable

Appropriate Engineering Controls

Material should be handled or transferred in a fume hood or with equivalent ventilation. Maintain eye-wash fountain and quick-drench facilities in work area.

Individual Protection Measures

Avoid all unnecessary exposure.

Eye/Face Protection

Use chemical safety goggles and /or a full face shield where splashing is possible. Contact lenses should not be worn when working with this material. Maintain eye-wash fountain and quick-drench facilities in work area.

Skin Protection

Protective gloves and additional protection including impervious boots, apron, or coveralls, as needed in areas of unusual exposure to prevent skin contact.

Respiratory Protection

Wear appropriate mask.

Other Information

Do not eat, drink, or smoke when using this product.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--|------------------|
| Physical State | Solid |
| Color | White |
| Odor | Odorless |
| Odor Threshold | Not determined |
| pH | Not determined |
| Melting Point/Freezing Point | Not determined |
| Initial Boiling Point and Boiling Range | 850°C |
| Flash Point | Not determined |
| Evaporation Rate | Not determined |
| Flammability (Solid, Gas) | Not determined |
| Upper/Lower Flammability/Explosive Limits | Not determined |
| Vapor Pressure | Not determined |
| Vapor Density | Not determined |
| Relative Density | Not determined |
| Solubility | Soluble in water |
| Partition Coefficient: n-octanol/water | Not determined |
| Auto-Ignition Temperature | Not determined |
| Decomposition Temperature | Not determined |
| Viscosity | Not determined |

SECTION 10: STABILITY AND REACTIVITY

| | |
|---|--|
| Reactivity | Thermal decomposition generates corrosive vapors. |
| Chemical Stability | Stable under ordinary conditions of use and storage. |
| Possibility of Hazardous Reactions | No data available. |
| Conditions to Avoid | No data available. |
| Incompatible Materials | Oxidizing agents and metals. |
| Hazardous Decomposition Products | Thermal decomposition generates corrosive vapors. |

SECTION 11: TOXICOLOGICAL INFORMATION

| | |
|---|-------------------|
| Acute Toxicity | No data available |
| Manganese Sulfate Monohydrate (10034-96-5) | |
| LD50 oral rat | 2150 mg/kg |

| | |
|--|--|
| Skin Corrosion/Irritation | Not classified |
| Serious Eye Damage/Irritation | Not classified |
| Respiratory or Skin Sensitization | Not classified |
| Germ Cell Mutagenicity | Not classified |
| Carcinogenicity | Not classified |
| Reproductive Toxicity | Not classified |
| Specific Target Organ Toxicity (Single Exposure) | Not classified |
| Specific Target Organ Toxicity (Repeated Exposure) | May cause damage to organs through prolonged or repeated exposure. |
| Aspiration Hazard | Not classified |
| Potential Adverse Human Health Effects and Symptoms | Not classified |
| Other Information | No additional information. |

SECTION 12: ECOLOGICAL INFORMATION

| | |
|--------------------------------------|---|
| Ecology – Water Toxicity | Toxic to aquatic life with long lasting results. No data available. |
| Persistence and Degradability | No data available |
| Bioaccumulative Potential | No data available |
| Mobility in Soil | Not established |
| Other Adverse Effects | Avoid release to the environment. |

SECTION 13: DISPOSAL CONSIDERATIONS

Methods of Disposal

| | |
|---------------------------------|---|
| Disposal Recommendations | Dispose of contents/containers in accordance with local, state and federal regulations. Hazardous waste shall not be mixed together with other waste. |
| Other Information | Hazardous waste due to toxicity. Avoid release to the environment. |

SECTION 14: TRANSPORT INFORMATION

| | |
|-----------------------------------|----------------|
| UN Number | Not applicable |
| UN Shipping Name | Not applicable |
| Transport Hazard Class(es) | Not applicable |
| Packing Group | Not applicable |
| Environmental Hazards | Not applicable |
| Transport in Bulk | Not applicable |
| Other Precautions | Not applicable |

SECTION 15: REGULATORY INFORMATION

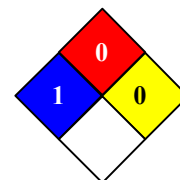
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| Manganese Sulfate Monohydrate (10034-96-5) |
| Listed on the United States TSCA (Toxic Substances Control Act) inventory |

SECTION 16: OTHER INFORMATION

Revision Date: 02/09/2015

NFPA Hazards

| | |
|-------------------------------|---|
| Health Hazard | 1: Exposure would cause irritation with only minor residual injury. |
| Fire Hazard | 0: Materials that will not burn under typical fire conditions. |
| Reactivity/Instability | 0: Normally stable, even under fire exposure conditions, and are not reactive with water. |



HMIS III Rating

| | |
|----------------------------|---|
| Health | 1: Irritation or minor reversible injury possible. |
| Flammability | 0: Materials that will not burn. |
| Physical Hazard | 0: Materials that are normally stable, even under fire conditions, and will not react with water. |
| Personal Protection | E |

| M-19 | |
|---------------------|---|
| Health | 1 |
| Flammability | 0 |
| Physical Hazard | 0 |
| Personal Protection | E |

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END OF SAFETY DATA SHEET