

# SAFETY DATA SHEET

Date Printed: 05/14/2024

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## SECTION 1. IDENTIFICATION

**Product Identifier:** (4N) 99.99% Manganese(II) Nitrate Hexahydrate

**Product Code:** MN-NAT-04-C.6HYD

**CAS Number:** 17141-63-8

**Relevant identified uses of the substance:** Scientific research and development

Supplier details:

American Elements  
10884 Weyburn Ave.  
Los Angeles, CA 90024  
Tel: +1 310-208-0551  
Fax: +1 310-208-0351  
Emergency telephone number:  
+1 800-424-9300

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## SECTION 2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Oxidizing solids Category 2

Acute oral toxicity Category 4

Skin Corrosion/Irritation Category 1 B

Serious Eye Damage/Eye Irritation Category 1

Specific target organ toxicity (single exposure) Category 3

Target Organs - Respiratory system. Specific target organ toxicity - (repeated exposure) Category 2

Target Organs - Brain.

Signal Word

Danger

Hazard Statements

May intensify fire; oxidize

Harmful if swallowed

Causes severe skin burns and eye damage

May cause respiratory irritation

May cause damage to organs through prolonged or repeated exposure



## Precautionary Statements

### Prevention

Wash face, hands and any exposed skin thoroughly after handling

Do not eat, drink or smoke when using this product

Do not breathe dust/fume/gas/mist/vapors/spray

Wear protective gloves/protective clothing/eye protection/face protection

Use only outdoors or in a well-ventilated area

Keep away from heat/sparks/open flames/hot surfaces. - No smoking

Keep/Store away from clothing/ other combustible materials

Take any precaution to avoid mixing with combustibles

### Response

Immediately call a POISON CENTER or doctor/physician

### Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

### Skin

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower

Wash contaminated clothing before reuse

### Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

### Ingestion

Rinse mouth

Do NOT induce vomiting

### Fire

In case of fire: Use CO<sub>2</sub>, dry chemical, or foam for extinction

### Storage

Store locked up

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

### Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Harmful to aquatic life with long lasting effects

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## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component / CAS-No / Weight %:

Manganese(II) nitrate hexahydrate / 17141-63-8 / <=100

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## SECTION 4. FIRST AID MEASURES

### General Advice

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

### Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required. Keep eye wide open while rinsing.

### Skin Contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and

shoes. Call a physician immediately.

#### Inhalation

Remove to fresh air. If not breathing, give artificial respiration. Call a physician or poison control center immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

#### Ingestion

Immediate medical attention is required. Do NOT induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person.

#### Most important symptoms and effects

Causes burns by all exposure routes. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation

#### Notes to Physician

Treat symptomatically

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## SECTION 5. FIREFIGHTING MEASURES

Suitable Extinguishing Media Not combustible. CO 2, dry chemical, dry sand, alcohol-resistant foam.

Unsuitable Extinguishing Media No information available

Flash Point No information available

Method - No information available

Autoignition Temperature No information available

Explosion Limits

Upper No data available

Lower No data available

Oxidizing Properties Oxidizer

Sensitivity to Mechanical Impact No information available

Sensitivity to Static Discharge No information available

Specific Hazards Arising from the Chemical

The product causes burns of eyes, skin and mucous membranes. Oxidizer: Contact with combustible/organic material may cause fire. May ignite combustibles (wood paper, oil, clothing, etc.).

Hazardous Combustion Products

Nitrogen oxides (NO<sub>x</sub>). Manganese oxides.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

NFPA

Health

3

Flammability

Instability

1

Physical hazards

- OX

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## SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Use personal protective equipment as required. Evacuate personnel to safe areas. Avoid contact with skin, eyes or clothing.

#### Environmental Precautions

Should not be released into the environment. Do not allow material to contaminate ground water system. See Section 12 for additional Ecological Information. Avoid release to the environment. Collect spillage. Do not flush into surface water or sanitary sewer system.

#### Methods for Containment and Clean Up

Sweep up and shovel into suitable containers for disposal. Avoid dust formation. Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Sweep up and shovel into suitable containers for disposal

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## SECTION 7. HANDLING AND STORAGE

#### Handling

Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe dust. Do not ingest. If swallowed then seek immediate medical assistance. Keep away from clothing and other combustible materials.

#### Storage

Store under an inert atmosphere. Protect from moisture. Corrosives area. Keep containers tightly closed in a dry, cool and well-ventilated place. Do not store near combustible materials

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## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Engineering Measures

Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.

#### Personal Protective Equipment

##### Eye/face Protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

##### Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

##### Respiratory Protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

##### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

#### Physical State Solid

#### Appearance Pink

#### Odor Odorless

#### Odor Threshold No information available

#### pH No information available

#### Melting Point/Range ~ 26 °C / 78.8 °F

#### Boiling Point/Range No information available

#### Flash Point No information available

Evaporation Rate Not applicable  
Flammability (solid,gas) No information available  
Flammability or explosive limits  
Upper No data available  
Lower No data available  
Vapor Pressure No information available  
Vapor Density Not applicable  
Specific Gravity No information available  
Solubility No information available  
Partition coefficient; n-octanol/water No data available  
Autoignition Temperature No information available  
Decomposition Temperature No information available  
Viscosity Not applicable  
Molecular Formula  $MnN_2O_6 \cdot 6H_2O$   
Molecular Weight 287.04 (178.95anhy)

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## SECTION 10. STABILITY AND REACTIVITY

Reactive Hazard Yes  
Stability Hygroscopic. Oxidizer: Contact with combustible/organic material may cause fire.  
Conditions to Avoid Exposure to moist air or water. Incompatible products. Excess heat.  
Combustible material.  
Incompatible Materials Strong reducing agents, Combustible material  
Hazardous Decomposition Products Nitrogen oxides (NO<sub>x</sub>), Manganese oxides  
Hazardous Polymerization Hazardous polymerization does not occur. Hazardous Reactions None under normal processing.

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## SECTION 11. TOXICOLOGICAL INFORMATION

Acute Toxicity  
Product Information  
Component Information  
Toxicologically Synergistic  
Products  
No information available  
Delayed and immediate effects as well as chronic effects from short and long-term exposure  
Irritation No information available  
Sensitization No information available  
Mutagenic Effects No information available  
Reproductive Effects No information available.  
Developmental Effects No information available. Teratogenicity No information available.  
STOT - single exposure Respiratory system  
STOT - repeated exposure Brain  
Aspiration hazard No information available  
Symptoms / effects,both acute and delayed  
Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation  
Endocrine Disruptor Information No information available  
Other Adverse Effects The toxicological properties have not been fully investigated.

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## SECTION 12. ECOLOGICAL INFORMATION

### Ecotoxicity

May cause long-term adverse effects in the environment. Do not allow material to contaminate ground water system. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment.

Persistence and Degradability based on information available. May persist

Bioaccumulation/ Accumulation No information available.

Mobility Will likely be mobile in the environment due to its water solubility

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## SECTION 13. DISPOSAL CONSIDERATIONS

### Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

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## SECTION 14. TRANSPORT INFORMATION

### DOT

UN-No UN2724

Proper Shipping Name MANGANESE NITRATE

Hazard Class 5.1

Packing Group III

### TDG

UN-No UN2724

Proper Shipping Name MANGANESE NITRATE

Hazard Class 5.1

Packing Group III

### IATA

UN-No UN2724

Proper Shipping Name MANGANESE NITRATE

Hazard Class 5.1

Packing Group III

### IMDG/IMO

UN-No UN2724

Proper Shipping Name MANGANESE NITRATE

Hazard Class 5.1

Packing Group III

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## SECTION 15. REGULATORY INFORMATION

### U.S. Federal Regulations

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act) Not applicable

OSHA - Occupational Safety and

Health Administration

Not applicable

CERCLA Not applicable  
California Proposition 65 This product does not contain any Proposition 65 chemicals.  
U.S. Department of Transportation  
Reportable Quantity (RQ): N  
DOT Marine Pollutant N  
DOT Severe Marine Pollutant N  
U.S. Department of Homeland  
Security  
This product does not contain any DHS chemicals. Other International Regulations  
Mexico - Grade No information available

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## 16. OTHER INFORMATION

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. American Elements shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. COPYRIGHT 1997-2022 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.