Manganese Chloride, Reagent

SECTION 1 : Identification of the substance/mixture and of the supplier

Product name : **Manganese Chloride, Reagent**

Manufacturer/Supplier Trade name:

Manufacturer/Supplier Article number: **S25418**

Recommended uses of the product and uses restrictions on use:

Manufacturer Details:

AquaPhoenix Scientific
9 Barnhart Drive, Hanover, PA 17331

Supplier Details:

Fisher Science Education
15 Jet View Drive, Rochester, NY 14624

Emergency telephone number:

Fisher Science Education Emergency Telephone No.: 800-535-5053

SECTION 2 : Hazards identification

Classification of the substance or mixture:

Irritant
Acute toxicity (oral, dermal, inhalation), category 4

Health hazard
Specific target organ toxicity following repeated exposure, category 2

Chronic hazards to the aquatic environment, category 3
AcTox Oral. 4
Aquatic AcTox. 3
STOT RE 2

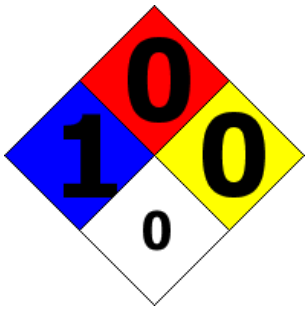
Signal word :Warning

Hazard statements:
Harmful if swallowed
May cause damage to organs through prolonged or repeated exposure
Harmful to aquatic life with long lasting effects
Precautionary statements:
Wash ... thoroughly after handling
Do not eat, drink or smoke when using this product
Avoid release to the environment
Do not breathe dust/fume/gas/mist/vapours/spray
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth
Get Medical advice/attention if you feel unwell
Collect spillage
Dispose of contents/container to ...

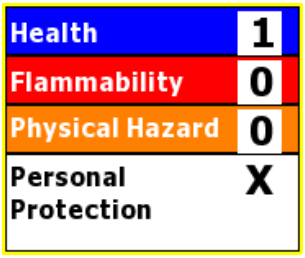
Combustible Dust Hazard: :
May form combustible dust concentrations in air (during processing).

Other Non-GHS Classification:

WHMIS
NFPA/HMIS



NFPA SCALE (0-4)



HMIS RATINGS (0-4)

SECTION 3 : Composition/information on ingredients

Ingredients:		
CAS 13446-34-9	Manganese dichloride tetrahydrate	100 %
		Percentages are by weight

SECTION 4 : First aid measures

Description of first aid measures

After inhalation: Loosen clothing as necessary and position individual in a comfortable position.Remove to fresh air. Give artificial respiration if necessary. If breathing is difficult give oxygen.Consult a physician.

After skin contact: Wash hands and exposed skin with soap and plenty of water. Consult a physician.

After eye contact: Protect unexposed eye. Rinse or flush exposed eye gently using water for 15-20 minutes. Remove contact lenses while rinsing.Seek medical attention if irritation persists or if concerned.

After swallowing: Rinse mouth thoroughly. Never give anything by mouth to an unconscious person.Consult a physician.

Most important symptoms and effects, both acute and delayed:

Shortness of breath.Irritation.Nausea.Headache.;

Indication of any immediate medical attention and special treatment needed:

If seeking medical attention provide SDS document to physician.

SECTION 5 : Firefighting measures

Extinguishing media

Suitable extinguishing agents: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

For safety reasons unsuitable extinguishing agents:

Special hazards arising from the substance or mixture:

Hydrogen chloride gas.Manganese.Manganese oxides.

Advice for firefighters:

Protective equipment: Wear protective eyeware, gloves, and clothing.Refer to Section 8.

Additional information (precautions): Avoid generating dust. Avoid breathing vapors, mist, or gas.

SECTION 6 : Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Ensure adequate ventilation.

Environmental precautions:

Prevent from reaching drains, sewer, or waterway. If safe to do so prevent further leakage or spillage.Discharge into the environment must be avoided.

Methods and material for containment and cleaning up:

Follow Chemical Hygiene Plan. Pick up and arrange disposal without creating dust.Sweep up and containerize for disposal. Refer to Section 8.If necessary use trained response staff or contractor.

Reference to other sections:

SECTION 7 : Handling and storage

Precautions for safe handling:

Minimize dust generation and accumulation. Wash hands after handling. Provide appropriate exhaust ventilation at places where dust is formed. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Use only in well ventilated areas.Avoid contact with eyes, skin, and clothing.

Conditions for safe storage, including any incompatibilities:

Keep container tightly closed in a cool, dry, and well-ventilated area. Refer to Sections 5, 8, and 10.Store with like hazards.Follow Chemical Hygiene Plan. Store away from incompatible materials. Store away from food.

SECTION 8 : Exposure controls/personal protection

Control Parameters:	13446-34-9, Manganese dichloride tetrahydrate, ACGIH TLV: 0.2 mg/m3, OSHA PEL: 5 mg/m3 , , OSHA PEL TWA (Total Dust) 15 mg/m3 (50 mppcf*) , , ACGIH TLV TWA (inhalable particles) 10 mg/m3
Appropriate Engineering controls:	It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment.Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.
Respiratory protection:	For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator.For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges.Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Protection of skin: Select glove material impermeable and resistant to the substance.Select glove material based on rates of diffusion and degradation. Complete suit protecting against chemicals.The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

Eye protection: Safety glasses with side shields or goggles.Wear equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

General hygienic measures: Avoid contact with skin, eyes, and clothing.Wash hands and exposed skin with soap and plenty of water. Wash hands before breaks and immediately after handling the product.Do not inhale gases, fumes, dust, mist, vapor, and aerosols. Do not eat, drink, smoke, or use personal products when handling chemical substances.Before wearing wash contaminated clothing.

SECTION 9 : Physical and chemical properties

Appearance (physical state,color):	Light red crystalline powder	**Explosion limit lower**: **Explosion limit upper**:	Non Explosive Non Explosive
Odor:	Odorless	**Vapor pressure**:	Not Available
Odor threshold:	Not Applicable	**Vapor density**:	Not Available
pH-value:	4.0 - 6 at 99 g/l at 25°C	**Relative density**:	1.913 g/cm3
Melting/Freezing point:	58°C	**Solubilities**:	Water solubility 99 g/l at 20°C
Boiling point/Boiling range:	1190°C	**Partition coefficient (n-octanol/water)**:	No Information
Flash point (closed cup):	Not Applicable	**Auto/Self-ignition temperature**:	Not Applicable
Evaporation rate:	No Information	**Decomposition temperature**:	Not Available
Flammability (solid,gaseous):	No Information	**Viscosity**:	a. Kinematic:Not Available b. Dynamic: Not Available
Density: Not Available			

SECTION 10 : Stability and reactivity

Reactivity: Nonreactive under normal conditions.
Chemical stability: Stable under normal conditions.
Possible hazardous reactions: None under normal processing
Conditions to avoid: Incompatible Materials.Dust generation.Excess heat.exposure to moist air or water.
Incompatible materials: Sodium.Sodium oxides.Strong acids. Potassium.Zinc.Strong reducing agents.Hydrogen peroxides.
Hazardous decomposition products: Hydrogen chloride.oxides of manganese.irritating and toxic fumes and gases.

SECTION 11 : Toxicological information

Acute Toxicity:		
Oral:	1,484 mg/kg	LD50 Rat
Chronic Toxicity: No additional information.		
Corrosion Irritation: No additional information.		
Sensitization:		No additional information.
Single Target Organ (STOT):		No additional information.
Numerical Measures:		No additional information.
Carcinogenicity:		No additional information.
Mutagenicity:		Laboratory experiments have shown mutagenic effects.
Reproductive Toxicity:		No additional information.

SECTION 12 : Ecological information

Ecotoxicity

Fish: LC50 - Carassius auratus (goldfish) - 18.8 mg/l - 7 d

Invertebrates: EC50 - Daphnia magna (Water flea) - > 11 mg/l - 48 h

Persistence and degradability:
Bioaccumulative potential:
Mobility in soil:
Other adverse effects:

SECTION 13 : Disposal considerations

Waste disposal recommendations:

Offer surplus and non-recyclable solutions to a licensed disposal company.Dispose of empty containers as unused product.Consult federal, state, provincial, and local regulations regarding the proper disposal of waste material that may incorporate some amount of this product. If necessary use trained response staff or contractor. Follow good hygiene procedures when handling chemical materials. Refer to Section 8.It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11).

SECTION 14 : Transport information

UN-Number

Not Dangerous Goods

UN proper shipping name

Not Dangerous Goods

Transport hazard class(es)
Packing group:Not Dangerous Goods
Environmental hazard:
Transport in bulk:
Special precautions for user:

SECTION 15 : Regulatory information

United States (USA)

SARA Section 311/312 (Specific toxic chemical listings):

Acute, Chronic

SARA Section 313 (Specific toxic chemical listings):

None of the ingredients is listed

RCRA (hazardous waste code):

None of the ingredients is listed

TSCA (Toxic Substances Control Act):

All ingredients are listed.

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):

None of the ingredients is listed

Proposition 65 (California):

Chemicals known to cause cancer:

None of the ingredients is listed

Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed

Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed

Chemicals known to cause developmental toxicity:

None of the ingredients is listed

Canada

Canadian Domestic Substances List (DSL):

All ingredients are listed.

Canadian NPRI Ingredient Disclosure list (limit 0.1%):

None of the ingredients is listed

Canadian NPRI Ingredient Disclosure list (limit 1%):

None of the ingredients is listed

SECTION 16 : Other information

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.Note:. The responsibility to provide a safe workplace remains with the user.The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment.The information contained herein is, to the best of our knowledge and belief, accurate.However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material.It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

GHS Full Text Phrases:

Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods
PNEC: Predicted No-Effect Concentration (REACH)
CFR: Code of Federal Regulations (USA)
SARA: Superfund Amendments and Reauthorization Act (USA)
RCRA: Resource Conservation and Recovery Act (USA)
TSCA: Toxic Substances Control Act (USA)
NPRI: National Pollutant Release Inventory (Canada)
DOT: US Department of Transportation
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
ACGIH: American Conference of Governmental Industrial Hygienists
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
WHMIS: Workplace Hazardous Materials Information System (Canada)
DNEL: Derived No-Effect Level (REACH)

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