

SECTION 1. ----- PRODUCT AND COMPANY IDENTIFICATION-----

Product Name	Manganese chloride, tetrahydrate
Product Code(s)	MB0331
Recommended Use	For Laboratory Research Use Only Not for Human or Animal Drug Use

SECTION 2. ----- HAZARDS IDENTIFICATION -----

Classification of the substance or mixture

GHS Classification in accordance with Hazardous Products Regulations (HPR) (SOR/2015-17)

Acute aquatic toxicity (Category 2) Chronic Aquatic toxicity (Category 2)
 Serious eye damage (Category 1) Acute toxicity, Oral (Category 4)
 Specific target organ toxicity – repeated exposure (Category 2)

For the full text of the H-Statements mentioned in this Section, see Section 16.

GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H302	Harmful if swallowed.
H318	Causes serious eye damage.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P301 + P312 + P330	IF SWALLOWED: Immediately call a POISON CENTER/doctor. Rinse mouth.
P305 + P351 + P338 + P310	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
P314	Get medical advice/ attention if you feel unwell.
P391	Collect spillage.
P501	Dispose of contents/ container to an approved waste disposal plant.

HMIS Classification: Health hazard 1, Flammability 0, Physical hazards 0
NFPA Rating: Health hazard 1, Fire 0, Reactivity hazard 0

SECTION 3. ----- COMPOSITION/INFORMATION ON INGREDIENTS -----

Chemical Name	EC No.	CAS-No	Weight %
Manganese chloride, tetrahydrate	231-869-6	13446-34-9	<100

SECTION 4. ----- FIRST-AID MEASURES -----

Eyes: rinse with plenty of water for 15 min. & consult a physician.
Skin: Rinse with plenty of soap & water.
Ingestion: Do not induce vomiting without medical advice. Rinse with water.
Inhalation: Move to fresh air. **Physician:** Treat symptomatically & supportively.

SECTION 5. ----- FIRE FIGHTING MEASURES -----

Info: wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH & full protective gear. Irritating and highly toxic gases may be generated by thermal decomp/combustion.
Special Hazards: Hydrogen chloride gas, Manganese oxides.
Extinguishing: Use water spray, dry chemical, carbon dioxide, or alcohol-resistant foam.

SECTION 6. ----- ACCIDENTAL RELEASE MEASURES -----

Info: Use proper PPE as indicated in Section 8.
Spills/Leaks: Clean up spills immediately, observing precautions in the PPE Section. Sweep up or absorb material, then place into a suitable clean, dry, closed container for disposal. Avoid generating dusty conditions. Provide ventilation.

SECTION 7. ----- HANDLING AND STORAGE -----

Handling: Wash thoroughly after handling. Use only in a well-ventilated area. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.
Storage: Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

SECTION 8. ----- EXPOSURE CONTROLS/PERSONAL PROTECTION -----

Controls: Facility storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

<u>Chemical Name</u>	<u>ACGIH</u>	<u>NIOSH</u>	<u>OSHA - Final / Vacated</u>
<u>PELs</u> Manganese (II) Chloride Tetrahydrate,	0.1 & 0.2mg/m3	1-3mg/m3	5mg/m3

PPE:
Eyes: 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: Wear appropriate protective gloves to prevent skin exposure. 0.11mm thick nitrile.
Clothing: Wear appropriate protective clothing to prevent skin exposure.
Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

SECTION 9. ----- PHYSICAL AND CHEMICAL PROPERTIES -----

Appearance: Pink – fine crystals

pH: 4-6 at 99g/l at 25°C(77°F)
Boiling Pt.: 1,190°C at 1,013 hPa
Melting Pt: 58°C (136°F)
Decomp Temp: > 100 ° C.
Solubility: 99g/l at 20°C (68°F)
Relative Density: 1.913 g/cm3.

SECTION 10. ----- -STABILITY AND REACTIVITY -----

Stability: Stable under normal temp/pressures.
Avoid: moisture.
Incompatibilities: Strong oxidizing agents, sodium/sodium oxides, strong acids, potassium, zinc.
Haz Decomp: see section 5

SECTION 11. ----- TOXICOLOGICAL INFORMATION -----

RTECS#: OO9650000.
LD50/LC50: Oral, rat: LD50 = 1484 mg/kg;
Carcinogenicity: not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

SECTION 12. ----- ECOLOGICAL INFORMATION -----

Environmental Toxicity: LC50-goldfish-18.8mg/l-7d, EC50-water flea - >11mg/l-48h

SECTION 13. ----- DISPOSAL CONSIDERATIONS -----

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.
RCRA P-Series: None listed
RCRA U-Series: None listed.

SECTION 14. ----- TRANSPORT INFORMATION -----

IMDG

UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Manganese dichloride tetrahydrate), 9, III
EHS-Mark required for single packaging and combo containing inner packaging >5kg solids.

IATA

UN3077, Environmentally hazardous substance, solid, n.o.s. (Manganese dichloride tetrahydrate), 9, III

SECTION 15. ----- REGULATORY INFORMATION -----

SARA 311/312: Acute Health Hazard, Chronic Health Hazard
Section 302 (RQ) & Section 302 (TPQ) None of the chemicals in this material/product have a RQ or TPQ.
Section 313 This chemical is subject to reporting Manganese dichloride tetrahydrate CAS#13446-34-9
STATE CAS# 13446-34-9 is not present on state lists from CA, MN, MA, FL.
PA & NJ Right to Know: Manganese dichloride tetrahydrate CAS#13446-34-9 Rev.07/1/07
California Prop.65 components: None of the chemicals are known to cause cancer, birth defects, or any other reproductive harm.

EUROPEAN/INTERNATIONAL REGULATIONS European Labeling in Accordance with EC Directives

Hazard Symbols: XN

WGK (Water Danger/Protection) CAS# 13446-34-9: No information available.

Canada - DSL.NDSL None of the chemicals in this product are listed on the DSL or NDSL list.

Canada - WHMIS This product has a WHMIS classification of D2B.
Canadian Ingredient Disclosure List CAS# 13446-34-9 (listed as Manganese) is listed on the Canadian Ingredient Disclosure List.

SECTION 16. ----- OTHER INFORMATION-----

Further information: no limited for paper copy, just for internal uses.
For research use only. Not intended for human or animal diagnostic or therapeutic uses.

Disclaimer

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

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End of SDS