

**MATERIAL SAFETY DATA SHEET****Product Name:** Manganese chloride tetrahydrate**CAS No.:** 13446-34-9 **Version:** 0**1. Identification**

**Product Code** : 90273, 90676  
**Company Name** : Advent Chembio Private Limited  
**Address** : W-288, MIDC, TTC INDUSTRIAL AREA, THANE-BELAPUR  
ROAD, RABALE, NAVI MUMBAI - 400 701.  
**E-mail** : [info@adventchembio.com](mailto:info@adventchembio.com)  
**WEBSITE** : [www.adventchembio.com](http://www.adventchembio.com)  
**Company Phone Number** : 022-27690837

**2. Hazards Identification****Hazard classification**

Acute toxicity, Oral : Category 4

**Label elements****Hazard symbol**

**Signal word** : Warning  
**Hazard statement** : Harmful if swallowed.  
**Precautionary statement** : None  
**Supplemental Hazard Statements** : None

**3. Composition/information on ingredients**

<b>Ingredient</b>	<b>CAS No</b>	<b>Percent</b>
Manganese chloride tetrahydrate	13446-34-9	NLT- 99.0%

**4. First Aid Measures****Description of first aid measures**

**General advice** : Consult a physician. Show this safety data sheet to the doctor in attendance.  
**Inhalation** : If breathed in, move person into fresh air. If not breathing, give artificial respiration.  
**Skin contact** : Wash off with soap and plenty of water.

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- Eye contact** : Flush eyes with water as a precaution.
- Swallowed** : Never give anything by mouth to an unconscious person. Rinse mouth with water.
- Most important symptoms and effects, both acute and delayed** : To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
- Indication of any immediate medical attention and special treatment needed** : No data available

**5. Fire fighting measures**

- Extinguishing media**
- Suitable extinguishing media** : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Special hazards arising from the substance or mixture** : Hydrogen chloride gas, Manganese/manganese oxides
- Advice for firefighters** : Wear self contained breathing apparatus for fire fighting if necessary
- Further information** : No data available

**6. Accidental Release Measures**

- Personal precautions, protective equipment and emergency procedures** : Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Avoid breathing dust.
- Environmental precautions** : Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.
- Methods and materials for containment and cleaning up** : Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.
- Reference to other sections** : For disposal see section 13.

**7. Handling and Storage**

- Precautions for safe handling** : Avoid contact with skin and eyes. Avoid formation of dust and aerosols.  
Provide appropriate exhaust ventilation at places where dust is formed.
- Conditions for safe storage, including any incompatibilities** : Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

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Wash and dry hands.**Body Protection** : 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.**Respiratory protection** : Respiratory protection is required.**9. Physical and Chemical Properties****Appearance** : Light red crystals  
**Odor** : No data available  
**pH** : 4.0 - 6 at 99 g/l at 25 °C  
**Melting point/freezing point** : 58 °C  
**Initial boiling point and boiling range** : No data available  
**Flash Point** : No data available  
**Vapor pressure** : No data available  
**Vapor density** : No data available

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**Relative density** : 1.913 g/cm<sup>3</sup>  
**Solubility in water** : 99 g/l at 20 °C - completely soluble  
**Solubility (other)** : No data available  
**Formula** : Cl<sub>2</sub>Mn · 4H<sub>2</sub>O  
**Molecular Weight** : 197.91 g/mol

**10. Stability and Reactivity**

**Reactivity** : No data available  
**Chemical stability** : Stable under recommended storage conditions.  
**Possibility of hazardous reactions** : No data available  
**Conditions to avoid** : No data available  
**Incompatible materials** : Sodium/sodium oxides, Strong acids, Potassium, Zinc  
**Hazardous decomposition products** : No data available

**11. Toxicological Information****Information on toxicological effects**

**Acute toxicity** : LD<sub>50</sub> Oral - rat - 1.484 mg/kg  
**Skin corrosion/irritation** : No data available  
**Serious eye damage/eye irritation** : No data available  
**Respiratory or skin sensitization** : No data available  
**Germ cell mutagenicity** : No data available  
**Carcinogenicity** : IARC:  
No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.  
**Reproductive toxicity** : No data available  
**Specific target organ toxicity - single exposure** : No data available.  
**Specific target organ toxicity - repeated exposure** : No data available  
**Aspiration hazard** : No data available  
**Potential health effects**  
**Inhalation** : May be harmful if inhaled. May cause respiratory tract irritation.  
**Ingestion** : Harmful if swallowed.  
**Skin** : May be harmful if absorbed through skin. May cause skin irritation.

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**Eyes** : May cause eye irritation.  
**Signs and Symptoms of Exposure** : To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

### 12. Ecological Information

**Toxicity** : Toxicity to fish :  
 LC50 - Carassius auratus (goldfish) - 18,8 mg/l - 7 d  
 Toxicity to daphnia and other aquatic invertebrates :  
 EC50 - Daphnia magna (Water flea) - > 11 mg/l - 48 h  
**Persistence and degradability** : No data available  
**Bioaccumulative potential** : No data available  
**Mobility in soil** : No data available  
**Other adverse effects** : Harmful to aquatic life.

### 13. Disposal consideration

**Disposal instructions** : Discharge, treatment, or disposal may be subject to national, state, or local laws.  
**Contaminated packaging** : Offer rinsed packaging material to local recycling facilities. 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 dangerous goods		
IMDG			Not dangerous goods		
IATA			Not dangerous goods		

### 15. Regulatory Information

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

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

**16. Other Information****Issue Date :**01/08/2014**Version : 0**

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