

## SAFETY DATA SHEET

Creation Date 24-Jan-2011

Revision Date 25-May-2017

Revision Number 3

### 1. Identification

**Product Name** Manganese(II) chloride tetrahydrate  
**Cat No. :** AC193450000; AC193451000; AC193455000  
**Synonyms** No information available  
**Recommended Use** Laboratory chemicals.  
**Uses advised against** Not for food, drug, pesticide or biocidal product use

Details of the supplier of the safety data sheet

#### Emergency Telephone Number

For information **US** call: 001-800-ACROS-01 / **Europe** call: +32 14 57 52 11

Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99

**CHEMTREC** Tel. No.**US**:001-800-424-9300 / **Europe**:001-703-527-3887

### 2. Hazard(s) identification

#### Classification

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

Serious Eye Damage/Eye Irritation	Category 4
Specific target organ toxicity - (repeated exposure)	Category 1
Target Organs - Brain.	Category 2

#### Label Elements

##### Signal Word

Danger

##### Hazard Statements

Harmful if swallowed

Causes serious eye damage

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  
Wear protective gloves/protective clothing/eye protection/face protection  
Do not breathe dust/fume/gas/mist/vapors/spray

**Response**

Get medical attention/advice if you feel unwell

**Eyes**

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 or doctor/physician

**Ingestion**

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

Rinse mouth

**Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

Toxic to aquatic life with long lasting effects

### 3. Composition / information on ingredients

Component	CAS-No	Weight %
Manganous chloride tetrahydrate	13446-34-9	>95
Manganese(II) chloride	7773-01-5	-

### 4. First-aid measures

<b>General Advice</b>	If symptoms persist, call a physician.
<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.
<b>Skin Contact</b>	Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.
<b>Inhalation</b>	Move to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.
<b>Ingestion</b>	Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.
<b>Most important symptoms/effects</b>	None reasonably foreseeable. Causes severe eye damage.
<b>Notes to Physician</b>	Treat symptomatically

**Sensitivity to Static Discharge** No information available

#### Specific Hazards Arising from the Chemical

Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes. Keep product and empty container away from heat and sources of ignition.

#### Hazardous Combustion Products

Hydrogen chloride gas Heavy metal 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.

#### NFPA

**Health**  
2

**Flammability**  
0

**Instability**  
1

**Physical hazards**  
N/A

### 6. Accidental release measures

#### Personal Precautions

Use personal protective equipment. Ensure adequate ventilation. Avoid dust formation.

#### Environmental Precautions

Do not flush into surface water or sanitary sewer system. Should not be released into the environment. Do not allow material to contaminate ground water system.

#### Methods for Containment and Clean Up

Sweep up or vacuum up spillage and collect in suitable container for disposal. Keep in suitable, closed containers for disposal.

### 7. Handling and storage

#### Handling

Wear personal protective equipment. Avoid ingestion and inhalation. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid dust formation.

#### Storage

Keep containers tightly closed in a dry, cool and well-ventilated place.

### 8. Exposure controls / personal protection

#### Exposure Guidelines

Component

**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**

## 9. Physical and chemical properties

<b>Physical State</b>	Solid Powder
<b>Appearance</b>	Light red
<b>Odor</b>	Odorless
<b>Odor Threshold</b>	No information available
<b>pH</b>	4-6 5% aq.solution
<b>Melting Point/Range</b>	58 °C / 136.4 °F
<b>Boiling Point/Range</b>	No information available
<b>Flash Point</b>	No information available
<b>Evaporation Rate</b>	Not applicable
<b>Flammability (solid,gas)</b>	No information available
<b>Flammability or explosive limits</b>	
<b>Upper</b>	No data available
<b>Lower</b>	No data available
<b>Vapor Pressure</b>	No information available
<b>Vapor Density</b>	Not applicable
<b>Specific Gravity</b>	No information available
<b>Solubility</b>	1980 g/L @ 20 °C
<b>Partition coefficient; n-octanol/water</b>	No data available
<b>Autoignition Temperature</b>	
<b>Decomposition Temperature</b>	No information available
<b>Viscosity</b>	Not applicable
<b>Molecular Formula</b>	Cl <sub>2</sub> Mn . 4 H <sub>2</sub> O
<b>Molecular Weight</b>	197.91

## 10. Stability and reactivity

<b>Reactive Hazard</b>	None known, based on information available
<b>Stability</b>	Stable under normal conditions. Hygroscopic.
<b>Conditions to Avoid</b>	Avoid dust formation. Incompatible products. Excess heat. Exposure to moisture.
<b>Incompatible Materials</b>	Strong acids, Metals
<b>Hazardous Decomposition Products</b>	Hydrogen chloride gas, Heavy metal oxides
<b>Hazardous Polymerization</b>	Hazardous polymerization does not occur.
<b>Hazardous Reactions</b>	None under normal processing.

## 11. Toxicological information

**Acute Toxicity****Product Information****Component Information**

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Manganous chloride tetrahydrate	LD50 = 1484 mg/kg ( Rat )	Not listed	Not listed
Manganese(II) chloride	250 mg/kg ( Rat ) 1031 mg/kg ( Mouse )	Not listed	Not listed

**Toxicologically Synergistic Products**

No information available

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

<b>Irritation</b>	Severe eye irritant						
<b>Sensitization</b>	No information available						
<b>Carcinogenicity</b>	The table below indicates whether each agency has listed any ingredient as a carcinogen.						
	<b>Component</b>	<b>CAS-No</b>	<b>IARC</b>	<b>NTP</b>	<b>ACGIH</b>	<b>OSHA</b>	<b>Mexico</b>
	Manganous chloride tetrahydrate	13446-34-9	Not listed	Not listed	Not listed	Not listed	Not listed
	Manganese(II) chloride	7773-01-5	Not listed	Not listed	Not listed	Not listed	Not listed
<b>Mutagenic Effects</b>	No information available						
<b>Reproductive Effects</b>	No information available.						
<b>Developmental Effects</b>	No information available.						
<b>Teratogenicity</b>	No information available.						
<b>STOT - single exposure</b>	None known						
<b>STOT - repeated exposure</b>	Brain						
<b>Aspiration hazard</b>	No information available						
<b>Symptoms / effects,both acute and delayed</b>	No information available						
<b>Endocrine Disruptor Information</b>	No information available						
<b>Other Adverse Effects</b>	The toxicology is Td(a) Tj 1						

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<b>Hazard Class</b>	9
<b>Packing Group</b>	III
<b><u>TDG</u></b>	
<b>UN-No</b>	UN3077
<b>Proper Shipping Name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
<b>Hazard Class</b>	9
<b>Packing Group</b>	III
<b><u>IATA</u></b>	
<b>UN-No</b>	UN3077
<b>Proper Shipping Name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
<b>Hazard Class</b>	9
<b>Packing Group</b>	III
<b><u>IMDG/IMO</u></b>	
<b>UN-No</b>	UN3077
<b>Proper Shipping Name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
<b>Hazard Class</b>	9
<b>Packing Group</b>	III

## 15. Regulatory information

All of the components in the product are on the following Inventory lists: X = listed

### International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS
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**Clean Air Act**

Component	HAPS Data	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Manganous chloride tetrahydrate	X		-
Manganese(II) chloride	X		-

**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. State Right-to-Know Regulations**

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Manganous chloride tetrahydrate	-	X	X	X	-
Manganese(II) chloride	-	X	X	X	-

**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

## 16. Other information

**Prepared By** Regulatory Affairs  
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**Print Date** 25-May-2017  
**Revision Summary** This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

**Disclaimer**

The information provided in this Safety Data Sheet 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text

**End of SDS**