



TOKYO CHEMICAL INDUSTRY CO., LTD.

Manganese(II) Chloride Tetrahydrate

Revision 3
number:

Revision date: 03/05/2023

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SAFETY DATA SHEET

1. IDENTIFICATION

Product name: Manganese(II) Chloride Tetrahydrate
Product code: M2095
Company: TOKYO CHEMICAL INDUSTRY CO., LTD.
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Revision number: 3

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

PHYSICAL HAZARDS

Not classified

HEALTH HAZARDS

Acute toxicity (Oral)

Category 4

Serious eye damage/eye irritation

Category 1

Reproductive toxicity

Category 2

Specific target organ toxicity

Respiratory system, Nervous system

- Repeated exposure [Category 1]

ENVIRONMENTAL HAZARDS

Acute aquatic hazard

Category 3

Long-term aquatic hazard

Category 2

Label elements

Pictograms or hazard symbols



Signal word

Danger

Hazard statements

Harmful if swallowed

Causes serious eye damage

Suspected of damaging fertility or the unborn child

Causes damage to organs through prolonged or

repeated exposure : Respiratory system Nervous system

Harmful to aquatic life

Toxic to aquatic life with long lasting effects

Precautionary statements

[Prevention]

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Do not breathe dust, fume, mist, vapors or spray.

Avoid release to the environment.

Do not eat, drink or smoke when using this product.

Wash hands and face thoroughly after handling.

Wear protective gloves, protective clothing, face protection.

[Response]

IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Rinse mouth.

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.

IF exposed or concerned: Get medical advice or attention.

Collect spillage.

[Storage]

Store locked up.

[Disposal]

Dispose of contents and container in accordance with local, regional, national regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/mixture:	Substance
Components:	Manganese(II) Chloride Tetrahydrate
Percent:	>98.0%(T)
CAS RN:	13446-34-9
Synonyms:	Basic Violet 3 Hydrate , Hexamethylpararosaniline Chloride Hydrate
Chemical Formula:	MnCl ₂ · 4H ₂ O
Notice Through Official Gazettes Reference Number	
ENCS:	(1)-235
ISHL:	Official announcement chemistry substance.

4. FIRST-AID MEASURES

Inhalation:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention.
Skin contact:	Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. Get medical advice/attention.
Eye contact:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Get medical advice/attention.
Ingestion:	Get medical advice/attention. Rinse mouth.
Protection of first-aiders:	A rescuer should wear personal protective equipment, such as rubber gloves and air-tight goggles.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:	Dry chemical, foam, water spray, carbon dioxide.
Specific hazards arising from the chemical:	Take care as it may decompose upon combustion or in high temperatures to generate poisonous fume.
Precautions for firefighters:	Fire-extinguishing work is done from the windward and the suitable fire-extinguishing method according to the surrounding situation is used. Uninvolved persons should evacuate to a safe place. In case of fire in the surroundings: Remove movable containers if safe to do so.
Special protective equipment for firefighters:	When extinguishing fire, be sure to wear personal protective equipment

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:	Use personal protective equipment. Keep people away from and upwind of spill/leak. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc.
Environmental precautions:	Be careful not to let it flow into rivers, etc., since adverse effects on the environment are concerned.
Methods and materials for containment and cleaning up:	Sweep dust to collect it into an airtight container, taking care not to disperse it. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

7. HANDLING AND STORAGE**Precautions for safe handling**

Technical measures:	Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent dispersion of dust. Wash hands and face thoroughly after handling. Use a closed system if possible. Use a local exhaust if dust or aerosol will be generated.
Advice on safe handling:	Avoid all contact!
<u>Conditions for safe storage, including any incompatibilities</u>	
Storage conditions:	Keep container tightly closed. Store in a cool and dark place. Store under inert gas. Protect from moisture. Store locked up. Store away from incompatible materials such as oxidizing agents. Hygroscopic
Packaging material:	Comply with laws.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls:	Install a closed system or local exhaust. Also install safety shower and eye bath.
Control parameters:	as Mn 0.2 mg/m ³
Exposure limits:	
ACGIH TLV(TWA):	0.1 mg(Mn)/m ³
OSHA PEL(CL):	5 mg(Mn)/m ³
JSOH OELs(TWA):	0.2 mg(Mn)/m ³
Personal protective equipment	
Respiratory protection:	Dust respirator, self-contained breathing apparatus(SCBA), supplied air respirator, etc. Use respirators approved under appropriate government standards and follow local and national regulations.
Hand protection:	Impervious gloves.
Eye protection:	Safety goggles. A face-shield, if the situation requires.
Skin and body protection:	Impervious protective clothing. Protective boots, if the situation requires.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state (20°C):	Solid
Form:	Crystal - Powder
Colour:	White - Pale red
Odour:	No data available
Melting point/freezing point:	No data available
Boiling point/range:	No data available
Flammability(solid, gas):	No data available
Flash point:	No data available
Autoignition temperature:	No data available
Flammability or explosive limits:	
Lower:	No data available
Upper:	No data available
pH:	No data available
Kinematic viscosity:	No data available
Solubility(ies):	
[Water]	Very soluble
[Other solvents]	No data available
Log Pow:	No data available
Relative density:	No data available
Vapour density:	No data available
Particle characteristics:	No data available

10. STABILITY AND REACTIVITY

Reactivity:	No data available
Chemical stability:	Stable under proper conditions.
Possibility of hazardous reactions:	No special reactivity has been reported.
Conditions to avoid:	No data available
Incompatible materials:	Strong acids, Reducing agents, Alkali metals
Hazardous decomposition products:	Carbon dioxide, Carbon monoxide, Nitrogen oxides (NOx), Hydrogen chloride

11. TOXICOLOGICAL INFORMATION

Acute Toxicity:	orl-rat LD50:1484 mg/kg ipr-rat LD50:138 mg/kg
Skin corrosion/irritation:	No data available
Serious eye damage/irritation:	No data available
Germ cell mutagenicity:	dnd-rat-ipr 450 mg/kg/90D-I mnt-hmn-oth 10 umol/L/48H
Carcinogenicity:	
IARC =	No data available
NTP =	No data available
Reproductive toxicity:	orl-rat TDLo:42555.48 mg/kg (1-22D preg/24D post)
STOT-single exposure:	No data available
STOT-repeated exposure:	No data available
Aspiration hazard:	No data available
RTECS Number:	OO9650000

12. ECOLOGICAL INFORMATION

Ecotoxicity:	
Fish:	No data available
Crustacea:	No data available
Algae:	No data available
Persistence / degradability:	No data available
Bioaccumulative potential(BCF):	No data available
Mobility in soil	
Log Pow:	No data available
Soil adsorption (Koc):	No data available
Henry's Law (PaM³/mol):	No data available
Other adverse effects:	No data available

13. DISPOSAL CONSIDERATIONS

Recycle to process, if possible. Consult your local regional authorities. You may be able to dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. Observe all federal, state and local regulations when disposing of the substance.

14. TRANSPORT INFORMATION

UN-No:	3077
Proper shipping name:	Environmentally hazardous substance, solid, n.o.s.
Hazards Class:	9: Miscellaneous dangerous goods.
Packing group:	III
Marine pollutant	Y
Specific precautionary transport measures and conditions:	

15. JAPANESE REGULATORY INFORMATION

ISHL(Ordinance on Prevention of Hazards Due to Specified Chemical Substances):	Group-2 Substances under supervision
ISHL(Article 57):	Dangerous or Harmful Substances Subject to Be Indicated their Names, etc.
ISHL(Article 57-2):	Dangerous or Harmful Substances Subject to Be Notified their Names, etc.
Law for safety of vessels: Pollutant Release and Transfer Register Law:	Hazardous materials notification, Schedule form No.1 Harmful substances on Designated Chemical Substances, Class I List (No.412)
Water Pollution Control Law:	Designated Substance

16. OTHER INFORMATION**The reference company name of written contents**

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This SDS was prepared sincerely on the basis of the information we could obtained, however, any warranty shall not be given regarding the data contained and the assessment of hazards and toxicity. Prior to use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used, which shall be given the first priority. The products are supposed to be used promptly after purchase in consideration of safety. Some new information or amendments may be added afterwards. If the products are to be used far behind the expected time of use or you have any questions, please feel free to contact us. The stated cautions are for normal handling only. In case of special handling, sufficient care should be taken, in addition to the safety measures suitable for the situation. All chemical products should be treated with the recognition of "having unknown hazards and toxicity", which differ greatly depending on the conditions and handling when in use and/or the conditions and duration of storage. The products must be handled only by those who are familiar with specialized knowledge and have experience or under the guidance of those specialists throughout use from opening to storage and disposal. Safe usage conditions shall be set up on each user's own responsibility.