

# *Chem-Impex International Inc.*

---

Tel: (630) 766-2112  
E-mail: [sales@chemimpex.com](mailto:sales@chemimpex.com)  
**Shipping and Correspondence:**  
935 Dillon Drive  
Wood Dale, IL 60191 USA

Fax: (630) 766-2218  
Web site: [www.chemimpex.com](http://www.chemimpex.com)  
**Manufacturing site:**  
825 Dillon Drive  
Wood Dale, IL 60191 USA

## SAFETY DATA SHEET

---

### SECTION 1. CHEMICAL IDENTIFICATION

---

CATALOG #: 35263  
NAME: Manganese(II) chloride tetrahydrate  
SYNONYMS:  
24 HOUR EMERGENCY TELEPHONE: (800) 535-5053(USA)  
352-323-3500 (INTERNATIONAL)  
TO REQUEST AN MSDS: (800) 869-9290  
CUSTOMER SERVICE: (630) 766-2112

---

### SECTION 2. HAZARDS IDENTIFICATION

---

#### CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

**GHS CLASSIFICATION IN ACCORDANCE WITH 29 CFR 1910 (OSHA HCS)**

ACUTE TOXICITY, ORAL (CATEGORY 3), H301  
SERIOUS EYE DAMAGE (CATEGORY 1), H318  
SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE (CATEGORY 2), BRAIN,  
H373  
SHORT-TERM (ACUTE) AQUATIC HAZARD (CATEGORY 3), H402

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)**

H301 TOXIC IF SWALLOWED.  
H318 CAUSES SERIOUS EYE DAMAGE.  
H373 MAY CAUSE DAMAGE TO ORGANS THROUGH PROLONGED  
OR REPEATED EXPOSURE.  
H402 HARMFUL TO AQUATIC LIFE

**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.  
P280 WEAR EYE PROTECTION/ FACE PROTECTION  
P301 + P310 + 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.  
P405 STORE LOCKED UP.  
P501 DISPOSE OF CONTENTS/ CONTAINER TO AN APPROVED  
WASTE DISPOSAL PLANT.

**HAZARDS NOT  
OTHERWISE  
CLASSIFIED (HNOC)  
OR NOT COVERED  
BY GHS** NONE

---

MF:  $\text{MnCl}_2 \cdot 4\text{H}_2\text{O}$   
MW: 197.91  
CAS-NO. 13446-34-9  
PURITY:  $\geq 99.999\%$  (metals basis)

**HAZARDOUS COMPONENTS**

COMPONENT	CLASSIFICATION	CONCENTRATION
<b>Manganese(II) chloride tetrahydrate</b>		
	ACUTE TOX. 3; EYE DAM. 1; STOT RE 2; AQUATIC ACUTE 3; H301, H318, H373, H402	$\leq 100\%$

FOR THE FULL TEXT OF THE H-STATEMENTS MENTIONED IN THIS SECTION, SEE SECTION 16.

---

**SECTION 4. FIRST-AID MEASURES**

---

**DESCRIPTION OF FIRST AID MEASURES**

**GENERAL ADVICE** SHOW THIS MATERIAL SAFETY DATA SHEET TO THE DOCTOR IN ATTENDANCE.

**IF INHALED** IF BREATHED IN, MOVE PERSON INTO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. CONSULT A PHYSICIAN.

**IN CASE OF SKIN CONTACT** TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING. RINSE SKIN WITH WATER/ SHOWER. CONSULT A PHYSICIAN.

**IN CASE OF EYE CONTACT** RINSE OUT WITH PLENTY OF WATER. IMMEDIATELY CALL IN OPHTHALMOLOGIST. REMOVE CONTACT LENSES.

**IF SWALLOWED** IF SWALLOWED: GIVE WATER TO DRINK (TWO GLASSES AT MOST). SEEK MEDICAL ADVICE IMMEDIATELY. IN EXCEPTIONAL CASES ONLY, IF MEDICAL CARE IS NOT AVAILABLE WITHIN ONE HOUR, INDUCE VOMITING (ONLY IN PERSONS WHO ARE WIDE AWAKE AND FULLY CONSCIOUS), ADMINISTER ACTIVATED CHARCOAL (20 - 40 G IN A 10% SLURRY) AND CONSULT A DOCTOR AS QUICKLY AS POSSIBLE.

**MOST IMPORTANT SYMPTOMS AND** THE MOST IMPORTANT KNOWN SYMPTOMS AND EFFECTS ARE DESCRIBED IN THE LABELLING (SEE SECTION 2.2) AND/OR IN SECTION 11.

**EFFECTS, BOTH ACUTE  
AND DELAYED**

**INDICATION OF ANY  
IMMEDIATE MEDICAL  
ATTENTION AND  
SPECIAL TREATMENT  
NEEDED**

NO DATA AVAILABLE

---

**SECTION 5. FIRE AND EXPLOSION DATA**

---

**EXTINGUISHING MEDIA**

**SUITABLE  
EXTINGUISHING MEDIA**

SUITABLE EXTINGUISHING MEDIA  
USE EXTINGUISHING MEASURES THAT ARE  
APPROPRIATE TO LOCAL CIRCUMSTANCES AND THE  
SURROUNDING ENVIRONMENT.

UNSUITABLE EXTINGUISHING MEDIA  
FOR THIS SUBSTANCE/MIXTURE NO LIMITATIONS OF  
EXTINGUISHING AGENTS ARE GIVEN.

**SPECIAL HAZARDS  
ARISING FROM THE  
SUBSTANCE OR MIXTURE**

HYDROGEN CHLORIDE GAS,  
MANGANESE/MANGANESE OXIDES  
NOT COMBUSTIBLE.  
AMBIENT FIRE MAY LIBERATE HAZARDOUS VAPOURS.

**ADVICE FOR  
FIREFIGHTERS**

STAY IN DANGER AREA ONLY WITH SELF-CONTAINED  
BREATHING APPARATUS. PREVENT SKIN CONTACT BY  
KEEPING A SAFE DISTANCE OR BY WEARING  
SUITABLE PROTECTIVE CLOTHING.

**FURTHER INFORMATION**

SUPPRESS (KNOCK DOWN) GASES/VAPORS/MISTS  
WITH A WATER SPRAY JET. PREVENT FIRE  
EXTINGUISHING WATER FROM CONTAMINATING  
SURFACE WATER OR THE GROUND WATER SYSTEM.

---

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

---

**PERSONAL  
PRECAUTIONS,  
PROTECTIVE  
EQUIPMENT AND  
EMERGENCY  
PROCEDURES**

ADVICE FOR NON-EMERGENCY PERSONNEL: AVOID  
INHALATION OF DUSTS. AVOID SUBSTANCE CONTACT.  
ENSURE ADEQUATE VENTILATION. EVACUATE THE  
DANGER AREA, OBSERVE EMERGENCY PROCEDURES,  
CONSULT AN EXPERT.  
FOR PERSONAL PROTECTION SEE SECTION 8.

**ENVIRONMENTAL  
PRECAUTIONS**

DO NOT LET PRODUCT ENTER DRAINS.

**METHODS AND  
MATERIALS FOR  
CONTAINMENT AND  
CLEANING UP**

COVER DRAINS. COLLECT, BIND, AND PUMP OFF  
SPILLS. OBSERVE POSSIBLE MATERIAL RESTRICTIONS  
(SEE SECTIONS 7 AND 10). TAKE UP CAREFULLY.  
DISPOSE OF PROPERLY. CLEAN UP AFFECTED AREA.  
AVOID GENERATION OF DUSTS.

**REFERENCE TO OTHER  
SECTIONS**

FOR DISPOSAL SEE SECTION 13.

---

**SECTION 7. HANDLING AND STORAGE**

---

**PRECAUTIONS FOR SAFE  
HANDLING**

WORK UNDER HOOD. DO NOT INHALE  
SUBSTANCE/MIXTURE.  
CHANGE CONTAMINATED CLOTHING. PREVENTIVE  
SKIN PROTECTION RECOMMENDED. WASH HANDS  
AFTER WORKING WITH SUBSTANCE.  
FOR PRECAUTIONS SEE SECTION 2.2.

**CONDITIONS FOR SAFE  
STORAGE, INCLUDING  
ANY INCOMPATIBILITIES**

TIGHTLY CLOSED. DRY. KEEP IN A WELL-VENTILATED  
PLACE. KEEP LOCKED UP OR IN AN AREA ACCESSIBLE  
ONLY TO QUALIFIED OR AUTHORIZED PERSONS.

STORAGE CLASS (TRGS 510): 6.1D: NON-COMBUSTIBLE,  
ACUTE TOXIC CAT.3 / TOXIC HAZARDOUS MATERIALS  
OR HAZARDOUS MATERIALS CAUSING CHRONIC  
EFFECTS

Store at RT

**SPECIFIC END USE(S)**

APART FROM THE USES MENTIONED IN SECTION 1.2  
NO OTHER SPECIFIC USES ARE STIPULATED

---

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

---

**CONTROL PARAMETERS**

**COMPONENTS WITH WORKPLACE CONTROL PARAMETERS**

COMPONENT	CAS-NO.	VALUE	CONTROL PARAMETERS	BASIS

Manganese(II) chloride tetrahydrate	13446-34-9	C	5 MG/M3	USA. OCCUPATIONAL EXPOSURE LIMITS (OSHA) - TABLE Z-1 LIMITS FOR AIR CONTAMINANTS
		TWA	0.1 MG/M3	USA. ACGIH THRESHOLD LIMIT VALUES (TLV)
	REMARKS	NOT CLASSIFIABLE AS A HUMAN CARCINOGEN		
		TWA	0.02 MG/M3	USA. ACGIH THRESHOLD LIMIT VALUES (TLV)
		NOT CLASSIFIABLE AS A HUMAN CARCINOGEN		
		TWA	1 MG/M3	USA. NIOSH RECOMMENDED EXPOSURE LIMITS
		ST	3 MG/M3	USA. NIOSH RECOMMENDED EXPOSURE LIMITS
		PEL	0.2 MG/M3	CALIFORNIA PERMISSIBLE EXPOSURE LIMITS FOR CHEMICAL CONTAMINANTS (TITLE 8, ARTICLE 107)

#### **EXPOSURE CONTROLS**

##### **APPROPRIATE ENGINEERING CONTROLS**

CHANGE CONTAMINATED CLOTHING. PREVENTIVE SKIN PROTECTION RECOMMENDED. WASH HANDS AFTER WORKING WITH SUBSTANCE.

##### **PERSONAL PROTECTIVE EQUIPMENT**

**EYE/FACE PROTECTION** USE EQUIPMENT FOR EYE PROTECTION TESTED AND APPROVED UNDER APPROPRIATE GOVERNMENT STANDARDS SUCH AS NIOSH (US) OR EN 166(EU). TIGHTLY FITTING SAFETY GOGGLES

**SKIN PROTECTION**

THIS RECOMMENDATION APPLIES ONLY TO THE PRODUCT STATED IN THE SAFETY DATA SHEET, SUPPLIED BY US AND FOR THE DESIGNATED USE. WHEN DISSOLVING IN OR MIXING WITH OTHER SUBSTANCES AND UNDER CONDITIONS DEVIATING FROM THOSE STATED IN EN 16523-1 PLEASE CONTACT THE SUPPLIER OF CE-APPROVED GLOVES (E.G. KCL GMBH, D-36124 EICHENZELL).

**FULL CONTACT**

MATERIAL: NITRILE RUBBER  
MINIMUM LAYER THICKNESS: 0.11 MM  
BREAK THROUGH TIME: 480 MIN  
MATERIAL TESTED:KCL 741 DERMATRIL L

THIS RECOMMENDATION APPLIES ONLY TO THE PRODUCT STATED IN THE SAFETY DATA SHEET, SUPPLIED BY US AND FOR THE DESIGNATED USE. WHEN DISSOLVING IN OR MIXING WITH OTHER SUBSTANCES AND UNDER CONDITIONS DEVIATING FROM THOSE STATED IN EN 16523-1 PLEASE CONTACT THE SUPPLIER OF CE-APPROVED GLOVES (E.G. KCL GMBH, D-36124 EICHENZELL).

**SPLASH CONTACT**

MATERIAL: NITRILE RUBBER  
MINIMUM LAYER THICKNESS: 0.11 MM  
BREAK THROUGH TIME: 480 MIN  
MATERIAL TESTED:KCL 741 DERMATRIL L

**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**

RECOMMENDED FILTER TYPE: FILTER TYPE P3  
THE ENTREPRENEUR HAS TO ENSURE THAT MAINTENANCE, CLEANING AND TESTING OF RESPIRATORY PROTECTIVE DEVICES ARE CARRIED OUT ACCORDING TO THE INSTRUCTIONS OF THE PRODUCER. THESE MEASURES HAVE TO BE PROPERLY DOCUMENTED.  
REQUIRED WHEN DUSTS ARE GENERATED.  
OUR RECOMMENDATIONS ON FILTERING RESPIRATORY PROTECTION ARE BASED ON THE FOLLOWING STANDARDS: DIN EN 143, DIN 14387 AND OTHER ACCOMPANYING STANDARDS RELATING TO THE USED RESPIRATORY PROTECTION SYSTEM.

**CONTROL OF ENVIRONMENTAL EXPOSURE**

DO NOT LET PRODUCT ENTER DRAINS.

---

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

---

**INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES**

APPEARANCE	Pink crystals
ODOUR	ODOURLESS
ODOUR THRESHOLD	NO DATA AVAILABLE
PH	3.5 - 6 AT 50 G/L AT 25 C
MELTING POINT/FREEZING POINT	
INITIAL BOILING POINT AND BOILING RANGE	
FLASH POINT	
EVAPORATION RATE	NO DATA AVAILABLE
FLAMMABILITY (SOLID, GAS)	THE PRODUCT IS NOT FLAMMABLE. - FLAMMABILITY (SOLIDS)
UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS	NO DATA AVAILABLE
VAPOUR PRESSURE	NO DATA AVAILABLE
VAPOUR DENSITY	NO DATA AVAILABLE
RELATIVE DENSITY	2.01
WATER SOLUBILITY	1,980 G/L AT 20 C 757 G/L AT 20 C - REGULATION (EC) NO. 440/2008, ANNEX, A.6 - COMPLETELY SOLUBLE
PARTITION COEFFICIENT: N- OCTANOL/WATER	NOT APPLICABLE FOR INORGANIC SUBSTANCES
AUTO-IGNITION TEMPERATURE	NO DATA AVAILABLE
DECOMPOSITION TEMPERATURE	106 - 198 C - ELIMINATION OF WATER OF CRYSTALLISATION
VISCOSITY	NO DATA AVAILABLE
EXPLOSIVE PROPERTIES	NO DATA AVAILABLE
OXIDIZING PROPERTIES	NONE

**OTHER SAFETY INFORMATION**

NO DATA AVAILABLE

---

**SECTION 10. STABILITY AND REACTIVITY**

---

<b>REACTIVITY</b>	NO DATA AVAILABLE
<b>CHEMICAL STABILITY</b>	THE PRODUCT IS CHEMICALLY STABLE UNDER STANDARD AMBIENT CONDITIONS (ROOM TEMPERATURE).



<b>POSSIBILITY OF HAZARDOUS REACTIONS</b>	RISK OF EXPLOSION WITH: ALKALI METALS ZINC VIOLENT REACTIONS POSSIBLE WITH: ACIDS
<b>CONDITIONS TO AVOID</b>	NO DATA AVAILABLE
<b>INCOMPATIBLE MATERIALS</b>	METALS, LIGHT METALS
<b>HAZARDOUS DECOMPOSITION PRODUCTS</b>	IN THE EVENT OF FIRE: SEE SECTION 5

---

## **SECTION 11. TOXICOLOGICAL INFORMATION**

---

### **INFORMATION ON TOXICOLOGICAL EFFECTS**

<b>ACUTE TOXICITY</b>	LD50 ORAL - RAT - FEMALE - 236 MG/KG REMARKS: (ECHA) THE VALUE IS GIVEN IN ANALOGY TO THE FOLLOWING SUBSTANCES: MANGANESE(II) CHLORIDE  INHALATION: NO DATA AVAILABLE  DERMAL: NO DATA AVAILABLE  NO DATA AVAILABLE
<b>SKIN CORROSION/IRRITATION</b>	SKIN - RABBIT RESULT: NO SKIN IRRITATION - 4 H (OECD TEST GUIDELINE 404)
<b>SERIOUS EYE DAMAGE/EYE IRRITATION</b>	EYES RABBIT RESULT: CAUSES SERIOUS EYE DAMAGE. (OECD TEST GUIDELINE 405)
<b>RESPIRATORY OR SKIN SENSITISATION</b>	LOCAL LYMPH NODE ASSAY (LLNA) MOUSE RESULT: NEGATIVE (OECD TEST GUIDELINE 429) THE VALUE IS GIVEN IN ANALOGY TO THE FOLLOWING SUBSTANCES: MANGANESE(II) CHLORIDE

**GERM CELL  
MUTAGENICITY**

TEST TYPE: MUTAGENICITY (MAMMAL CELL TEST):  
CHROMOSOME ABERRATION.  
TEST SYSTEM: HUMAN LYMPHOCYTES  
METABOLIC ACTIVATION: WITH AND WITHOUT  
METABOLIC ACTIVATION  
METHOD: OECD TEST GUIDELINE 473  
RESULT: NEGATIVE

TEST TYPE: AMES TEST  
TEST SYSTEM: ESCHERICHIA COLI/SALMONELLA  
TYPHIMURIUM  
METABOLIC ACTIVATION: WITH AND WITHOUT  
METABOLIC ACTIVATION  
METHOD: OECD TEST GUIDELINE 471  
RESULT: NEGATIVE

TEST TYPE: IN VITRO MAMMALIAN CELL GENE  
MUTATION TEST  
TEST SYSTEM: MOUSE LYMPHOMA TEST  
METABOLIC ACTIVATION: WITH AND WITHOUT  
METABOLIC ACTIVATION  
METHOD: OECD TEST GUIDELINE 476  
RESULT: NEGATIVE  
THE VALUE IS GIVEN IN ANALOGY TO THE  
FOLLOWING SUBSTANCES: MANGANESE(II)  
CHLORIDE TEST TYPE: MICRONUCLEUS TEST  
SPECIES: MOUSE  
CELL TYPE: RED BLOOD CELLS (ERYTHROCYTES)  
APPLICATION ROUTE: ORAL  
METHOD: OECD TEST GUIDELINE 474  
RESULT: NEGATIVE

**CARCINOGENICITY**

IARC:

NO INGREDIENT OF THIS PRODUCT PRESENT AT  
LEVELS GREATER THAN OR EQUAL TO 0.1% IS  
IDENTIFIED AS PROBABLE, POSSIBLE OR CONFIRMED  
HUMAN CARCINOGEN BY IARC.

NTP:

NO INGREDIENT OF THIS PRODUCT PRESENT AT  
LEVELS GREATER THAN OR EQUAL TO 0.1% IS  
IDENTIFIED AS A KNOWN OR ANTICIPATED  
CARCINOGEN BY NTP.

OSHA:

NO COMPONENT OF THIS PRODUCT PRESENT AT  
LEVELS GREATER THAN OR EQUAL TO 0.1% IS ON  
OSHA S LIST OF REGULATED CARCINOGENS.

**REPRODUCTIVE TOXICITY**

NO DATA AVAILABLE

**SPECIFIC TARGET ORGAN  
TOXICITY - SINGLE  
EXPOSURE**

NO DATA AVAILABLE

**SPECIFIC TARGET ORGAN  
TOXICITY - REPEATED  
EXPOSURE**

MAY CAUSE DAMAGE TO ORGANS THROUGH  
PROLONGED OR REPEATED EXPOSURE. - BRAIN

**ASPIRATION HAZARD**

NO DATA AVAILABLE

**ADDITIONAL  
INFORMATION**

RTECS: 009650000

TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL,  
PHYSICAL, AND TOXICOLOGICAL PROPERTIES HAVE  
NOT BEEN THOROUGHLY INVESTIGATED.

AFTER ABSORPTION:  
WE HAVE NO DESCRIPTION OF ANY TOXIC  
SYMPTOMS. OTHER DANGEROUS PROPERTIES CAN  
NOT BE EXCLUDED.  
THIS SUBSTANCE SHOULD BE HANDLED WITH  
PARTICULAR CARE.

LIVER - IRREGULARITIES - BASED ON HUMAN  
EVIDENCE

---

**SECTION 12. ECOLOGICAL INFORMATION**

---

**TOXICITY****TOXICITY TO ALGAE**

STATIC TEST ERC50 - DESMODESMUS SUBSPICATUS  
(GREEN ALGAE) - 61 MG/L - 72 H  
(OECD TEST GUIDELINE 201)  
REMARKS: (IN ANALOGY TO SIMILAR PRODUCTS)  
THE VALUE IS GIVEN IN ANALOGY TO THE  
FOLLOWING SUBSTANCES: MANGANESE SULPHATE  
(MANGANESE DICHLORIDE TETRAHYDRATE)

SEMI-STATIC TEST NOEC - LEMNA MINOR  
(DUCKWEED) - 30.72 MG/L - 7 D  
REMARKS: (ECHA)

**TOXICITY TO BACTERIA**

THE VALUE IS GIVEN IN ANALOGY TO THE  
FOLLOWING SUBSTANCES:  
MANGANESE(II) CHLORIDE  
(MANGANESE DICHLORIDE TETRAHYDRATE)  
REMARKS: (IN ANALOGY TO SIMILAR PRODUCTS)  
THE VALUE IS GIVEN IN ANALOGY TO THE  
FOLLOWING SUBSTANCES: MANGANESE SULPHATE  
(MANGANESE DICHLORIDE TETRAHYDRATE)

**PERSISTENCE AND  
DEGRADABILITY**

THE METHODS FOR DETERMINING THE BIOLOGICAL  
DEGRADABILITY ARE NOT APPLICABLE TO  
INORGANIC SUBSTANCES.

**BIOACCUMULATIVE  
POTENTIAL**

NO DATA AVAILABLE

<b>MOBILITY IN SOIL</b>	NO DATA AVAILABLE
<b>RESULTS OF PBT AND VPVB ASSESSMENT</b>	PBT/VPVB ASSESSMENT NOT AVAILABLE AS CHEMICAL SAFETY ASSESSMENT NOT REQUIRED/NOT CONDUCTED
<b>OTHER ADVERSE EFFECTS</b>	NO DATA AVAILABLE

---

**SECTION 13. DISPOSAL CONSIDERATIONS**

---

**WASTE TREATMENT METHODS**

<b>PRODUCT</b>	WASTE MATERIAL MUST BE DISPOSED OF IN ACCORDANCE WITH THE NATIONAL AND LOCAL REGULATIONS. LEAVE CHEMICALS IN ORIGINAL CONTAINERS. NO MIXING WITH OTHER WASTE. HANDLE UNCLEARED CONTAINERS LIKE THE PRODUCT ITSELF.
<b>CONTAMINATED PACKAGING</b>	DISPOSE OF AS UNUSED PRODUCT.

---

**SECTION 14. TRANSPORT INFORMATION**

---

**DOT (US)**

PROPER SHIPPING NAME:	TOXIC SOLID, INORGANIC, N.O.S. (MANGANESE DICHLORIDE TETRAHYDRATE)
UN NUMBER:	3288
CLASS:	6.1
PACKING GROUP:	III
REPORTABLE QUANTITY (RQ):	
POISON INHALATION HAZARD:	NO

**IMDG**

PROPER SHIPPING NAME:	TOXIC SOLID, INORGANIC, N.O.S. (MANGANESE DICHLORIDE TETRAHYDRATE)
UN NUMBER:	3288
CLASS:	6.1
PACKING GROUP:	III
EMS-NO:	F-A, S-A
MARINE POLLUTANT :	YES

**IATA**

PROPER SHIPPING NAME:	TOXIC SOLID, INORGANIC, N.O.S. (MANGANESE DICHLORIDE TETRAHYDRATE)
-----------------------	--

UN NUMBER: 3288  
CLASS: 6.1  
PACKING GROUP: III

---

## SECTION 15. REGULATORY INFORMATION

---

**SARA 302 COMPONENTS** THIS MATERIAL DOES NOT CONTAIN ANY COMPONENTS WITH A SECTION 302 EHS TPQ.

**SARA 313 COMPONENTS** THE FOLLOWING COMPONENTS ARE SUBJECT TO REPORTING LEVELS ESTABLISHED BY SARA TITLE III, SECTION 313:

	CAS-NO.	REVISION DATE
Manganese(II) chloride tetrahydrate	13446-34-9	07-08-2015

**SARA 311/312 HAZARDS** ACUTE HEALTH HAZARD, CHRONIC HEALTH HAZARD

### MASSACHUSETTS RIGHT TO KNOW COMPONENTS

NO COMPONENTS ARE SUBJECT TO THE MASSACHUSETTS RIGHT TO KNOW ACT.

### PENNSYLVANIA RIGHT TO KNOW COMPONENTS

	CAS-NO.	REVISION DATE
Manganese(II) chloride tetrahydrate	13446-34-9	07-08-2015

---

## SECTION 16. OTHER INFORMATION

---

### FULL TEXT OF H-STATEMENTS REFERRED TO UNDER SECTIONS 2 AND 3.

H301	TOXIC IF SWALLOWED.
H318	CAUSES SERIOUS EYE DAMAGE.
H373	MAY CAUSE DAMAGE TO ORGANS THROUGH PROLONGED OR REPEATED EXPOSURE.
H402	HARMFUL TO AQUATIC LIFE.

### MSDS LEGEND

MW:	MOLECULAR WEIGHT
MF:	MOLECULAR FORMULA
VOC:	VOLATILE ORGANIC COMPOUNDS
ACGIH:	AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGINISTS
CAS:	CHEMICAL ABSTRACTS SERIVE REGISTRY NUMBER
OSHA:	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
PEL:	PERMISSIBLE EXPOSURE LIMIT (OSHA)
TLV:	THRESHOLD LIMIT VALUE (ACGIH)
IMPORTANT:	

*THE INFORMATION ABOVE IS BELIEVED TO BE ACCURATE AND REPRESENTS THE BEST INFORMATION CURRENTLY AVAILABLE TO US. HOWEVER, WE MAKE NO WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, WITH RESPECT TO SUCH INFORMATION, AND WE ASSUME NO LIABILITY RESULTING FROM ITS USE. USERS SHOULD MAKE THEIR OWN INVESTIGATIONS TO DETERMINE THE SUITABILITY OF THE INFORMATION FOR THEIR PARTICULAR PURPOSES. IN NO EVENT SHALL **CII** BE LIABLE FOR ANY CLAIMS, LOSSES, OR DAMAGES OF ANY THIRD PARTY OR FOR LOST PROFITS OR ANY SPECIAL, INDIRECT, INCIDENTAL, CONSEQUENTIAL OR EXEMPLARY DAMAGES, HOWSOEVER ARISING, EVEN IF **CII** HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.*

VERSION: 3.2

REVISION DATE: 02/01/2024