

# Chem-Impex International Inc.

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## SAFETY DATA SHEET

### SECTION 1. CHEMICAL IDENTIFICATION

CATALOG #: 30609

NAME: Manganese (II) chloride dihydrate

SYNONYMS: Manganese dichloride dihydrate

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

LONG-TERM (CHRONIC) AQUATIC HAZARD (CATEGORY 2), H411

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  
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.  
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.  
P391 COLLECT SPILLAGE.  
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

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

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MF:  $\text{MnCl}_2 \cdot 2\text{H}_2\text{O}$   
MW: 161.87  
CAS-NO. 20603-88-7  
PURITY:  $\geq 99\%$  (Assay)

**HAZARDOUS COMPONENTS**

| COMPONENT                                | CLASSIFICATION  | CONCENTRATION |
|--|---|---------------|
| <b>Manganese (II) chloride dihydrate</b> |   |               |
|  | ACUTE TOX. 3; EYE DAM. 1; STOT RE 2; AQUATIC ACUTE 3; AQUATIC CHRONIC 2; H301, H318, H373, H402, H411 | $\leq 100\%$  |

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

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**SECTION 4. FIRST-AID MEASURES**

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**DESCRIPTION OF FIRST AID MEASURES**

|   |   |
|---|---|
| <b>GENERAL ADVICE</b>   | SHOW THIS MATERIAL SAFETY DATA SHEET TO THE DOCTOR IN ATTENDANCE.   |
| <b>IF INHALED</b>   | AFTER INHALATION: FRESH AIR.  |
| <b>IN CASE OF SKIN CONTACT</b>  | IN CASE OF SKIN CONTACT: TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING. RINSE SKIN WITH WATER/ SHOWER.   |
| <b>IN CASE OF EYE CONTACT</b>   | AFTER EYE CONTACT: RINSE OUT WITH PLENTY OF WATER. CALL IN OPHTHALMOLOGIST. REMOVE CONTACT LENSES.  |
| <b>IF SWALLOWED</b>   | 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. |
| <b>MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED</b>                | THE MOST IMPORTANT KNOWN SYMPTOMS AND EFFECTS ARE DESCRIBED IN THE LABELLING (SEE SECTION 2.2) AND/OR IN SECTION 11.  |
| <b>INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED</b> | NO DATA AVAILABLE   |

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## SECTION 5. FIRE AND EXPLOSION DATA

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### 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

NATURE OF DECOMPOSITION PRODUCTS NOT KNOWN.  
NOT COMBUSTIBLE.  
FIRE MAY CAUSE EVOLUTION OF:  
HYDROGEN CHLORIDE GAS  
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**

PREVENT FIRE EXTINGUISHING WATER FROM CONTAMINATING SURFACE WATER OR THE GROUND WATER SYSTEM.

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**SECTION 6. ACCIDENTAL RELEASE MEASURES**

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**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.

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**SECTION 7. HANDLING AND STORAGE**

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**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**

NO METAL OR LIGHT-WEIGHT-METAL CONTAINERS. TIGHTLY CLOSED. DRY. KEEP IN A WELL-VENTILATED PLACE. KEEP LOCKED UP OR IN AN AREA ACCESSIBLE ONLY TO QUALIFIED OR AUTHORIZED PERSONS.

Store at 5°C - 30°C

**SPECIFIC END USE(S)**

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

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

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**CONTROL PARAMETERS****COMPONENTS WITH WORKPLACE CONTROL PARAMETERS**

| COMPONENT                         | CAS-NO.    | VALUE                                  | CONTROL PARAMETERS | BASIS  |
|-----------------------------------|------------|--|--------------------|--|
| Manganese (II) chloride dihydrate | 20603-88-7 | 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 |                    |  |
|                                   |            | C                                      | 5 MG/M3            | USA. OSHA - TABLE Z-1 LIMITS FOR AIR CONTAMINANTS - 1910.1000                    |
|                                   |            | 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                 |

**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                   | HANDLE WITH GLOVES. GLOVES MUST BE INSPECTED PRIOR TO USE. USE PROPER GLOVE REMOVAL TECHNIQUE (WITHOUT TOUCHING GLOVE'S OUTER SURFACE) TO AVOID SKIN CONTACT WITH THIS PRODUCT. DISPOSE OF CONTAMINATED GLOVES AFTER USE IN ACCORDANCE WITH APPLICABLE LAWS AND GOOD LABORATORY PRACTICES. WASH AND DRY HANDS. |
| BODY PROTECTION                   | PROTECTIVE CLOTHING  |
| RESPIRATORY PROTECTION            | 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.   |

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

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### INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

|  |  |
|--|--|
| APPEARANCE                                   | Rose color crystalline powder                    |
| ODOUR  | ODORLESS   |
| ODOUR THRESHOLD                              | NO DATA AVAILABLE                                |
| PH   | 5 - 6 AT 50 G/L AT 20 °C                         |
| MELTING POINT/FREEZING POINT                 | 650 °C   |
| INITIAL BOILING POINT AND BOILING RANGE      | 1190 °C  |
| FLASH POINT                                  |  |
| EVAPORATION RATE                             | NO DATA AVAILABLE                                |
| FLAMMABILITY (SOLID, GAS)                    | NO DATA AVAILABLE                                |
| UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS | NO DATA AVAILABLE                                |
| VAPOUR PRESSURE                              | NO DATA AVAILABLE                                |
| VAPOUR DENSITY                               | NO DATA AVAILABLE                                |
| RELATIVE DENSITY                             | 2.27   |
| WATER SOLUBILITY                             | 1,200 G/L AT 20 °C                               |
| PARTITION COEFFICIENT: N- OCTANOL/WATER      | NO DATA AVAILABLE                                |
| AUTO-IGNITION TEMPERATURE                    | NO DATA AVAILABLE                                |
| DECOMPOSITION TEMPERATURE                    | 198 °C - ELIMINATION OF WATER OF CRYSTALLIZATION |
| VISCOSITY                                    | NO DATA AVAILABLE                                |
| EXPLOSIVE PROPERTIES                         | NO DATA AVAILABLE                                |

OXIDIZING PROPERTIES NO DATA AVAILABLE

**OTHER SAFETY INFORMATION**

BULK DENSITY CA.850 KG/M3

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**SECTION 10. STABILITY AND REACTIVITY**

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**REACTIVITY** NO DATA AVAILABLE

**CHEMICAL STABILITY** THE PRODUCT IS CHEMICALLY STABLE UNDER STANDARD AMBIENT CONDITIONS

**POSSIBILITY OF HAZARDOUS REACTIONS** RISK OF EXPLOSION WITH:  
ALKALI METALS  
ZINC  
VIOLENT REACTIONS POSSIBLE WITH:  
ACIDS

**CONDITIONS TO AVOID** NO DATA AVAILABLE

**INCOMPATIBLE MATERIALS** LIGHT METALS, METALS

**HAZARDOUS DECOMPOSITION PRODUCTS** IN THE EVENT OF FIRE: SEE SECTION 5

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**SECTION 11. TOXICOLOGICAL INFORMATION**

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**INFORMATION ON TOXICOLOGICAL EFFECTS**

**ACUTE TOXICITY** LD50 ORAL - RAT - 250 MG/KG  
REMARKS: (RTECS)  
THE VALUE IS GIVEN IN ANALOGY TO THE FOLLOWING  
SUBSTANCES: MANGANESE(II) CHLORIDE

LD50 ORAL - RAT - FEMALE - 236 MG/KG  
REMARKS: (ECHA)  
THE VALUE IS GIVEN IN ANALOGY TO THE FOLLOWING  
SUBSTANCES: MANGANESE(II) CHLORIDE  
SYMPTOMS: POSSIBLE DAMAGES: MUCOSAL  
IRRITATIONS

DERMAL: NO DATA AVAILABLE

NO DATA AVAILABLE

|  |  |
|--|--|
| <b>SKIN<br/>CORROSION/IRRITATION</b>         | SKIN - RABBIT<br>RESULT: NO SKIN IRRITATION - 4 H<br>(OECD TEST GUIDELINE 404)<br>REMARKS: THE VALUE IS GIVEN IN ANALOGY TO THE<br>FOLLOWING SUBSTANCES: MANGANESE(II) CHLORIDE  |
| <b>SERIOUS EYE<br/>DAMAGE/EYE IRRITATION</b> | EYES - RABBIT<br>RESULT: CAUSES SERIOUS EYE DAMAGE.<br>(OECD TEST GUIDELINE 405)<br>REMARKS: THE VALUE IS GIVEN IN ANALOGY TO THE<br>FOLLOWING SUBSTANCES: MANGANESE(II) CHLORIDE  |
| <b>RESPIRATORY OR SKIN<br/>SENSITISATION</b> | LOCAL LYMPH NODE ASSAY (LLNA) - MOUSE<br>RESULT: NEGATIVE<br>(OECD TEST GUIDELINE 429)<br>REMARKS: THE VALUE IS GIVEN IN ANALOGY TO THE<br>FOLLOWING SUBSTANCES: MANGANESE(II) CHLORIDE  |
| <b>GERM CELL<br/>MUTAGENICITY</b>            | TEST TYPE: MUTAGENICITY (MAMMAL CELL TEST):<br>CHROMOSOME ABERRATION.<br>TEST SYSTEM: HUMAN LYMPHOCYTES<br>METABOLIC ACTIVATION: WITH AND WITHOUT<br>METABOLIC ACTIVATION<br>METHOD: OECD TEST GUIDELINE 473<br>RESULT: NEGATIVE<br>REMARKS: THE VALUE IS GIVEN IN ANALOGY TO THE<br>FOLLOWING SUBSTANCES: MANGANESE(II) CHLORIDE<br>TEST TYPE: AMES TEST<br>TEST SYSTEM: ESCHERICHIA COLI/SALMONELLA<br>TYPHIMURIUM<br>METABOLIC ACTIVATION: WITH AND WITHOUT<br>METABOLIC ACTIVATION<br>METHOD: OECD TEST GUIDELINE 471<br>RESULT: NEGATIVE<br>REMARKS: THE VALUE IS GIVEN IN ANALOGY TO THE<br>FOLLOWING SUBSTANCES: MANGANESE(II) CHLORIDE<br>TEST TYPE: IN VITRO MAMMALIAN CELL GENE<br>MUTATION TEST<br>TEST SYSTEM: MOUSE LYMPHOMA TEST<br>METABOLIC ACTIVATION: WITH AND WITHOUT<br>METABOLIC ACTIVATION<br>METHOD: OECD TEST GUIDELINE 476<br>RESULT: NEGATIVE<br>REMARKS: THE VALUE IS GIVEN IN ANALOGY TO THE<br>FOLLOWING SUBSTANCES: MANGANESE(II) CHLORIDE<br>TEST TYPE: CHROMOSOME ABERRATION TEST<br>SPECIES: MOUSE<br><br>APPLICATION ROUTE: ORAL<br>METHOD: OECD TEST GUIDELINE 474<br>RESULT: NEGATIVE<br>REMARKS: THE VALUE IS GIVEN IN ANALOGY TO THE<br>FOLLOWING SUBSTANCES: MANGANESE(II) CHLORIDE |
| <b>CARCINOGENICITY</b>                       |  |



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.

NTP: NO COMPONENT 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: NOT AVAILABLE

MANGANESE COMPOUNDS ARE GENERALLY ONLY VERY SLIGHTLY ABSORBABLE VIA THE GASTROINTESTINAL TRACT.

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.

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## SECTION 12. ECOLOGICAL INFORMATION

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### TOXICITY

|                                       |  |
|---------------------------------------|--|
| TOXICITY TO ALGAE                     | STATIC TEST NOEC - DESMODESMUS SUBSPICATUS<br>(GREEN ALGAE) - 1 MG/L - 72 H<br>(OECD TEST GUIDELINE 201)<br>REMARKS: THE VALUE IS GIVEN IN ANALOGY TO THE<br>FOLLOWING SUBSTANCES: MANGANESE SULPHATE<br><br>STATIC TEST ERC50 - DESMODESMUS SUBSPICATUS<br>(GREEN ALGAE) - 61 MG/L - 72 H<br>(OECD TEST GUIDELINE 201)<br>REMARKS: THE VALUE IS GIVEN IN ANALOGY TO THE<br>FOLLOWING SUBSTANCES: MANGANESE SULPHATE |
| PERSISTENCE AND<br>DEGRADABILITY      | THE METHODS FOR DETERMINING THE BIOLOGICAL<br>DEGRADABILITY ARE NOT APPLICABLE TO INORGANIC<br>SUBSTANCES.   |
| BIOACCUMULATIVE<br>POTENTIAL          | NO DATA AVAILABLE  |
| MOBILITY IN SOIL                      | NO DATA AVAILABLE  |
| RESULTS OF PBT AND VPVB<br>ASSESSMENT | PBT/VPVB ASSESSMENT NOT AVAILABLE AS CHEMICAL<br>SAFETY ASSESSMENT NOT REQUIRED/NOT CONDUCTED.   |
| OTHER ADVERSE EFFECTS                 | DISCHARGE INTO THE ENVIRONMENT MUST BE<br>AVOIDED.   |

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## SECTION 13. DISPOSAL CONSIDERATIONS

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### WASTE TREATMENT METHODS

|                           |  |
|---------------------------|--|
| PRODUCT                   | WASTE MATERIAL MUST BE DISPOSED OF IN<br>ACCORDANCE WITH THE NATIONAL AND LOCAL<br>REGULATIONS. LEAVE CHEMICALS IN ORIGINAL<br>CONTAINERS. NO MIXING WITH OTHER WASTE. |
| CONTAMINATED<br>PACKAGING | DISPOSE OF AS UNUSED PRODUCT.  |

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## SECTION 14. TRANSPORT INFORMATION

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|                       |   |
|-----------------------|---|
| DOT (US)              |   |
| PROPER SHIPPING NAME: | TOXIC SOLID, INORGANIC, N.O.S. (Manganese (II) chloride<br>dihydrate) |
| 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 (II) chloride dihydrate)

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 (II) chloride dihydrate)

UN NUMBER: 3288

CLASS: 6.1

PACKING GROUP: III

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**SECTION 15. REGULATORY INFORMATION**

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**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 dihydrate | 20603-88-7 | 07-08-2015    |

**MASSACHUSETTS RIGHT TO KNOW COMPONENTS**

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

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**SECTION 16. OTHER INFORMATION**

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**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  |
| H411 | TOXIC TO AQUATIC LIFE WITH LONG LASTING EFFECTS                    |

MSDS LEGEND

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

IMPORTANT:

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REVISION DATE : 07/01/2020

