**Section 1 - Chemical Product and Company Identification**

**Chemical Name:** Manganese Carbonate  
**Product Use:** For Commercial Use

**RESTRICTIONS on USE**

**NOT TO BE USED AS A PESTICIDE.** THIS PRODUCT IS NOT TO BE USED IN VIOLATION OF ANY PATENTS. CHEM ONE LTD. DISCLAIMS ANY AND ALL WARRANTIES, EITHER EXPRESSED OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR APPLICATION. IN NO EVENT SHALL CHEM ONE LTD. OR ITS SUPPLIERS BE LIABLE FOR ANY DAMAGES WHATSOEVER INCLUDING DIRECT, INDIRECT, INCIDENTAL, CONSEQUENTIAL, LOSS OF BUSINESS PROFITS OR SPECIAL DAMAGES, EVEN IF CHEM ONE LTD. OR ITS SUPPLIERS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF LIABILITY FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES SO THE FOREGOING LIMITATION MAY NOT APPLY.

**Supplier Information**

Chem One Ltd.  
14140 Westfair East Drive  
Houston, Texas 77041-1104  
Phone: (713) 896-9966  
Fax: (713) 896-7540  
Emergency # (800) 424-9300 or +1 (703) 527-3887

**Section 2 - Hazards Identification**

**GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)**

**Classification of the substance or mixture:** Not a hazardous substance or mixture.

**Label elements, including precautionary statements:** Not a hazardous substance or mixture.

**Hazards not otherwise classified (HNOC) or not covered by GHS:** None

**Section 3 - Composition/information on Ingredients**

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Component</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>598-62-9</td>
<td>Manganese Carbonate</td>
<td>&gt; 98%</td>
</tr>
</tbody>
</table>

**Component Related Regulatory Information**

This product may be regulated, have exposure limits or other information identified as the following: Manganese (7439-96-5), Manganese, elemental & inorganic compounds, as Mn, and Manganese fume, Mn

**Synonyms:** Carbonic Acid, Manganese(2+) Salt (1:1); Manganese Carbonate (1:1); Manganese(2+) Carbonate; Manganese(2+) Carbonate (1:1); Manganese Carbonate (MNCO3); Manganese(II) Carbonate; Manganese Carbonate; Natural Rhodochrosite.

**Section 4 - First Aid Measures**

**Emergency Overview**

Manganese Carbonate is a white to light pink solid in granular or powder form, which darkens upon exposure to air. The primary health hazard associated with this product is the potential for irritation of the eyes, skin, nose and other tissues that come in contact with dusts or particulates of this product. Inhalation overexposures may cause metal fume fever. Thermal decomposition of this product produces irritating vapors and toxic gases (e.g. oxides of manganese). Emergency responders should wear proper personal protective equipment for the releases to which they are responding.

**Hazard Statements**

CAUTION! HARMFUL IF SWALLOWED. CAUSES IRRITATION TO EYES, SKIN, AND RESPIRATORY TRACT. HARMFUL IF INHALED. INHALATION OVEREXPOSURE CAN CAUSE METAL FUME FEVER. CHRONIC OVEREXPOSURE MAY CAUSE ADVERSE CENTRAL NERVOUS SYSTEM AND NEUROLOGIC EFFECTS. Do not taste or swallow. Do not get on skin or in eyes. Avoid breathing dusts or particulates. Avoid prolonged or repeated contact with skin. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.
**Potential Health Effects: Eyes**
Exposure to particulates or solution of Manganese Carbonate may cause irritation of the eyes with symptoms such as stinging, tearing and redness. Prolonged contact may cause corneal injury and conjunctivitis.

**Potential Health Effects: Skin**
Manganese Carbonate can cause irritation of the skin, with symptoms such as reddening, discomfort and itching. Repeated skin contact may lead to dermatitis (red, cracked skin).

**Potential Health Effects: Ingestion**
Ingestion of Manganese Carbonate can cause nausea, vomiting, and abdominal cramps. Chronic ingestion of this product may cause systemic poisoning with symptoms similar to those described for chronic inhalation.

**Potential Health Effects: Inhalation**
Breathing dusts or particulates generated by Manganese Carbonate can lead to irritation of the nose, throat or respiratory system. Symptoms of such exposure could include coughing, sneezing, coughing and bronchitis. Repeated or prolonged exposure can cause metal fume fever, with resulting flu-like symptoms of chills and fever, sweating, and weakness. Chronic overexposure can also cause impotence, neurological and central nervous system effects including drowsiness, dizziness, hearing loss, visual disturbances, muscle weakness, facial muscle paralysis, speech impairment, insomnia, tremors and mental incapacity. Symptoms of such reaction can be delayed for several years.

**First Aid: Eyes**
In case of contact with eyes, rinse immediately with plenty of water for at least 20 minutes. Seek immediate medical attention if adverse effect occurs.

**First Aid: Skin**
Remove all contaminated clothing. For skin contact, wash thoroughly with soap and water for at least 20 minutes. Seek immediate medical attention if irritation develops or persists.

**First Aid: Ingestion**
DO NOT INDUCE VOMITING. Have victim rinse mouth thoroughly with water, if conscious. Never give anything by mouth to a victim who is unconscious or having convulsions. Contact a physician or poison control center immediately.

**First Aid: Inhalation**
Remove source of contamination or move victim to fresh air. Apply artificial respiration if victim is not breathing. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Administer oxygen if breathing is difficult. Get immediate medical attention.

**First Aid: Notes to Physician**

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**Section 5 - Fire Fighting Measures**

**General Fire Hazards**
Manganese Carbonate is not combustible.

**Hazardous Combustion Products**
Manganese and sulfur oxide.

**Extinguishing Media**
Use methods for surrounding fire.

**Fire Fighting Equipment/Instruction**
Firefighters should wear full protective clothing including self-contained breathing apparatus. Cool containers with flooding quantities of water. If possible control runoff from fire control or dilution water to prevent environmental contamination.

**NFPA Ratings: Health: 1 Fire: 0 Reactivity: 0 Other:**
Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe
**Safety Data Sheet**

**Material Name:** Manganese Carbonate

**ID:** COC-29

---

**Section 6 - Accidental Release Measures**

**Containment Procedures**
Stop the flow of material, if this can be done without risk. Contain the discharged material. If sweeping of a contaminated area is necessary use a dust suppressant agent, which does not react with product (see Section 10 for incompatibility information). Keep spilled material dry and away from moisture.

**Clean-Up Procedures**
Small releases can be cleaned-up using impervious gloves, goggles and suitable body protection. In case of a large spill (in which excessive dusts can be generated), clear the affected area, protect people, and respond with trained personnel. Place all spill residues in an appropriate container and seal. Thoroughly wash the area after a spill or leak clean-up. Prevent spill rinsate from contaminating of storm drains, sewers, soil or groundwater.

**Evacuation Procedures**
Evacuate the area promptly and keep upwind of the spilled material. Isolate the spill area to prevent people from entering. In case of large spills, follow all facility emergency response procedures.

**Special Procedures**
Remove soiled clothing and launder before reuse. Avoid all skin contact with the spilled material. Have emergency equipment readily available.

---

**Section 7 - Handling and Storage**

**Handling Procedures**
All employees who handle this material should be trained to handle it safely. Do not breathe dust. Avoid all contact with skin and eyes. Use this product only with adequate ventilation. Wash thoroughly after handling.

**Storage Procedures**
Keep container tightly closed when not in use. Store containers in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Material should be stored in secondary containers or in a diked area, as appropriate. Store containers away from incompatible chemicals (see Section 10, Stability and Reactivity). Storage areas should be made of fire-resistant materials. Post warning and “NO SMOKING” signs in storage and use areas, as appropriate. Use corrosion-resistant structural materials, lighting, and ventilation systems in the storage area. Floors should be sealed to prevent absorption of this material. Inspect all incoming containers before storage, to ensure containers are properly labeled and not damaged. Have appropriate extinguishing equipment in the storage area (i.e., sprinkler system, portable fire extinguishers).

Empty containers may contain residual particulates; therefore, empty containers should be handled with care. Never store food, feed, or drinking water in containers that held this product. Keep this material away from food, drink and animal feed. Do not store this material in open or unlabeled containers. Limit quantity of material stored.
**Section 8 - Exposure Controls / Personal Protection**

**Exposure Guidelines**

A: General Product Information

Follow the applicable exposure limits.

B: Component Exposure Limits

The exposure limits given are for Manganese, elemental & inorganic Compounds, as Mn (7439-96-5) or Manganese fume, as Mn.

- **ACGIH:** 0.2 mg/m³ TWA (fume & manganese, elemental & inorganic compounds, as Mn)
- **OSHA:** 5 mg/m³ STEL, ceiling (fume & manganese, elemental & inorganic compounds, as Mn)
- **Vacated 1989 PEL:** TWA = 1 mg/m³ (fume); STEL = 3 mg/m³ (fume)

**Engineering Controls**

Use mechanical ventilation such as dilution and local exhaust. Use a corrosion-resistant ventilation system and exhaust directly to the outside. Supply ample air replacement. Provide dust collectors with explosion vents.

**PERSONAL PROTECTIVE EQUIPMENT**

*The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132). Please reference applicable regulations and standards for relevant details.*

**Personal Protective Equipment: Eyes/ Face**

Wear safety glasses with side shields or chemical goggles. If necessary, refer to U.S. OSHA 29 CFR 1910.133.

**Personal Protective Equipment: Skin**


**Personal Protective Equipment: Respiratory**

Maintain airborne contaminant concentrations below exposure limits listed in Section 2 (Composition and Information on Ingredients), if applicable. If respiratory protection is needed, use only protection authorized in the U.S. Federal OSHA Standard (29 CFR 1910.134), and applicable U.S. State regulations. Oxygen levels below 19.5% are considered IDLH by OSHA. In such atmospheres, use of a full-facepiece pressure/demand SCBA or a full facepiece, supplied air respirator with auxiliary self-contained air supply is required under OSHA’s Respiratory Protection Standard (1910.134-1998). If airborne concentrations are above the applicable exposure limits, use NIOSH-approved respiratory protection.

The following NIOSH Guidelines for Manganese and Compounds (as Mn) are presented for further information.

- **Up to 10 mg/m³:** Dust and mist respirator except single-use and quarter-mask respirator or SAR.
- **Up to 25 mg/m³:** SAR operated in a continuous-flow mode, or powered air-purifying respirator with dust and mist filters.
- **Up to 50 mg/m³:** Full-facepiece respirator with high-efficiency particulate filter(s), or SAR with a tight-fitting facepiece operated in a continuous-flow mode, or powered air-purifying respirator with tight-fitting facepiece and high-efficiency particulate filter, or full-facepiece SCBA, or full-facepiece SAR.
- **Up to 500 mg/m³:** Positive pressure SAR.

**Emergency or Planned Entry into Unknown Concentrations or IDLH Conditions:** Positive pressure, full-facepiece SCBA, or positive pressure, full-facepiece SAR with an auxiliary positive pressure SCBA.

**Escape:** Full-facepiece respirator with high-efficiency particulate filter(s), or escape-type SCBA.

**NOTE:** The IDLH concentration for Manganese Compounds and fume (as Mn) is 500 mg/m³.
**Section 8 - Exposure Controls / Personal Protection Continued**

**Personal Protective Equipment: General**
Have an eyewash fountain and safety shower available in the work area. Wash hands thoroughly after handling material.

**Protective Clothing Pictograms:**
- Splash Goggles
- Gloves
- Protective Apron
- Dust Respirator

**Section 9 - Physical & Chemical Properties**

**Physical Properties: Additional Information**
The data provided in this section are to be used for product safety handling purposes. Please refer to Product Data Sheets, Certificates of Conformity or Certificates of Analysis for chemical and physical data for determinations of quality and for formulation purposes.

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>White or pink powder</td>
</tr>
<tr>
<td>Physical State</td>
<td>Solid</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Solubility (H₂O)</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Other Solubilities</td>
<td>Soluble in dilute acids; insoluble in alcohol</td>
</tr>
<tr>
<td>Softening Point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>114.94</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless</td>
</tr>
<tr>
<td>pH</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Freezing/Melting Point</td>
<td>&gt; 200 deg C (&gt; 392 deg F)</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>3.125 (H₂O = 1)</td>
</tr>
<tr>
<td>Particle Size</td>
<td>Not available</td>
</tr>
<tr>
<td>Bulk Density</td>
<td>Not available</td>
</tr>
<tr>
<td>Chemical Formula</td>
<td>MnCO₃</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not flammable</td>
</tr>
<tr>
<td>Upper Flammable Limit (UEL)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Lower Flammable Limit (UEL)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Auto Ignition</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Rate of Burning</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

**Section 10 - Chemical Stability & Reactivity Information**

**Chemical Stability**
Stable under circumstances of normal temperature and pressure. Manganese Carbonate is hygroscopic and will absorb moisture from the air. Manganese Carbonate will darken upon exposure to air.

**Chemical Stability: Conditions to Avoid**
Avoid high temperatures, moisture, and incompatible materials.

**Incompatibility**
Violent decomposition of hydrogen peroxide (52% by weight or greater) may be caused by contact with Manganese Carbonate.

**Hazardous Decomposition**
Manganese oxides.

**Hazardous Polymerization**
Will not occur.
**Section 11 – Toxicological Information**

### Acute and Chronic Toxicity

**A: General Product Information**

Acute: Manganese Carbonate is an eye irritant. Acute inhalation exposure may cause coughing, choking and tracheal irritation. Ingestion may result in irritation of the gastrointestinal tract, nausea, diarrhea. Skin contact may be mildly irritating.

Chronic: Chronic exposure via inhalation or ingestion may cause headache, restless sleep, drowsiness, irritability, dizziness, hypotension, pathological laughter or giddiness, convulsions, visual hallucinations, double vision, impaired hearing, uncontrollable impulses, mental confusion, euphoria, excessive salivation, chills, fever, aching muscles, dryness in mouth and throat, bronchitis, pneumonia and impotence. Prolonged exposure may result in symptoms of Parkinson’s Disease. Symptoms of Parkinson’s include mask-like facial expressions, muscle weakness and rigidity, salivation, tremors of upper extremities and head, staggering, slurred speech. Chronic exposure may also result in damage to liver, kidneys and permanent brain damage, leukopenia, elevated erythrocyte counts and increased osmotic fragility of the blood.

### Acute and Chronic Toxicity (continued)

**B: Component Analysis - LD50/LC50**

Manganese (7439-96-5):

Oral-rat LD$_{50} = 9$ g/kg

**C: Component Analysis - TDLo/LDLo**

Manganese Carbonate (598-62-9):

No data available.

### Carcinogenicity

**A: General Product Information**

No data available.

**B: Component Carcinogenicity**

Manganese & inorganic Compounds as Mn and Manganese fume, as Mn (7439-96-5)

EPA: EPA-D (Not Classifiable as to Human Carcinogenicity - inadequate human and animal evidence of carcinogenicity or no data available)

### Epidemiology

Workers in plants having high levels of manganese dust showed high incidence of respiratory disease, and pathologic changes included epithelial necrosis with symptoms similar to Parkinson’s disease and rigidity of facial expression.

### Neurotoxicity

Manganese compounds are considered neurotoxins. Combination of ingestion and inhalation can incur harmful effects on the central nervous system. Symptoms may include leg cramps, tremors, difficult walking, poor coordination, memory loss, questionable judgment and unstable emotions.

### Mutagenicity

No data available.

### Teratogenicity

No data available.

### Other Toxicological Information

Workers exposed to airborne manganese have had a higher incidence of pneumonia. Victims of manganese poisoning have reported impotence and decreased sexual desire.
**Section 12 - Ecological Information**

**A: General Product Information**
No information available.

**B: Ecotoxicity**
No ecotoxicity data are available for this product’s components.

**Environmental Fate**

**Terrestrial Fate:** Manganese cycles in the soil have been proposed involving di-, tri-, and tetravalent manganese. Divalent manganese is transformed through biological oxidation to the less available trivalent form and later, through dismutation, the manganese(3+) form is biologically reduced to manganese(2+). A dynamic equilibrium may exist between all forms. The oxidizing power of higher oxides increases with acidity and thus reduction by organic matter is more likely at low pH values. If the oxygen tension is low, biological reduction can take place at any pH value. Bacterial oxidation is very slow or absent in very acid soils and manganese(2+) predominates; organic matter can reduce the higher oxides. In alkaline soils, the divalent form nearly disappears; bacterial oxidation is rapid and reduction by organic matter is slow. In well aerated soils with a pH of more than 5.5, soil microorganisms can oxidize the divalent form rapidly. The rates of exchange between the various forms are not known at the present time but there is a very pronounced seasonal variation. This is probably due to oxidation and reduction induced by microbial action. The manganous form predominates in summer and the manganic form in winter, although the opposite is said to be true for alkaline soils.

**Aquatic Fate:** All water contains manganese derived from soil and rocks. Manganese in seawater is found mostly as manganese dioxide (MnO2), some of which is produced from manganese salts by several species of bacteria common to soils and ocean muds. The aqueous chemistry of manganese is complex. Mobilization of manganese is favored by low redox potential (Eh) and/or pH conditions. Thus acid mine drainage waters can give rise to high environmental concentrations of dissolved manganese. Mobilization was greatly enhanced in acid, poorly drained podzolic soils and groundwaters. In acid waterlogged soils, manganese passes freely into solution and circulates in the groundwaters but is precipitated on entering stream waters with average pH and Eh, thus giving rise to stream sediments enriched with manganese.

**Section 13 - Disposal Considerations**

**US EPA Waste Number & Descriptions**

**A: General Product Information**
As shipped, this product is not considered a hazardous waste by EPA.

**B: Component Waste Numbers**
No EPA Waste Numbers are applicable for this product's components.

**Disposal Instructions**
All wastes must be handled in accordance with local, state and federal regulations or with regulations of Canada and its Provinces. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority.

**Section 14 - Transportation Information**

**NOTE:** The shipping classification information in this section (Section 14) is meant as a guide to the overall classification of the product. However, transportation classifications may be subject to change with changes in package size. Consult shipper requirements under I.M.O., I.C.A.O. (I.A.T.A.) and 49 CFR to assure regulatory compliance.

**US DOT Information**

- **Shipping Name:** Not applicable
- **Hazard Class:** Not applicable
- **UN/NA #:** Not applicable
- **Packing Group:** Not applicable
- **Required Label(s):** Not applicable
- **RQ Quantity:** Not applicable

**55th Edition International Air Transport Association (IATA):**
For Shipments by Air transport: **Sodium Formate** is not considered hazardous.
**Section 14 - Transportation Information Continued**

**International Maritime Organization (I.M.O.) Classification**

I.M.O. Classification: Sodium Formate is not considered hazardous under IMDG/ I.M.O. regulations.

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**Section 15 - Regulatory Information**

**US Federal Regulations**

A: General Product Information

Manganese Carbonate is listed as a hazardous air pollutant (HAP) generally known or suspected to cause serious health problems.

B: Component Analysis

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4):

- **SARA 313**: Category code N450 (as Manganese compounds) for reporting under Section 313.
- **CERCLA**: There is no RQ assigned to this broad class (Manganese compounds), although the class is a CERCLA hazardous substance.

C: Sara 311/312 Tier II Hazard Ratings:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
<th>Fire Hazard</th>
<th>Reactivity Hazard</th>
<th>Pressure Hazard</th>
<th>Immediate Health Hazard</th>
<th>Chronic Health Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manganese Carbonate</td>
<td>598-62-9</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**State Regulations**

A: General Product Information

California Proposition 65

Manganese Carbonate is not on the California Proposition 65 chemical lists.

B: Component Analysis - State

Manganese Carbonate appears on one or more of the following state hazardous substance lists:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
<th>CA</th>
<th>FL</th>
<th>MA</th>
<th>MN</th>
<th>NJ</th>
<th>PA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manganese Carbonate</td>
<td>598-62-9</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Manganese and compounds</td>
<td>N/A</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Manganese</td>
<td>7439-96-5</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Other Regulations**

A: General Product Information

Manganese Carbonate is listed as a Hazardous Air Pollutant (HAP) under the Clear Air Act.

B: Component Analysis - Inventory

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
<th>TSCA</th>
<th>DSL</th>
<th>EINECS</th>
</tr>
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<tbody>
<tr>
<td>Manganese Carbonate</td>
<td>598-62-9</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

C: Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS #</th>
<th>Minimum Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manganese Carbonate</td>
<td>598-62-9</td>
<td>0.1%</td>
</tr>
</tbody>
</table>

ANSI LABELING (Z129.1): **WARNING!** HARMFUL IF SWALLOWED OR SWALLOWED. CAUSES SKIN AND EYE IRRITATION. INHALATION OVEREXPOSURE CAN CAUSE METAL FUME FEVER. CHRONIC INHALATION OR INGESTION OVEREXPOSURES CAN CAUSE CENTRAL NERVOUS SYSTEM EFFECTS AND NEUROLOGICAL DAMAGE. Keep from contact with clothing. Do not taste or swallow. Do not get on skin or in eyes. Avoid breathing dusts or particulates. Avoid prolonged or repeated contact with skin. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling. Wear gloves, goggles, faceshields, suitable body protection, and NIOSH/MSHA-approved respiratory protection, as appropriate.
Safety Data Sheet

Material Name: Manganese Carbonate

ID: COC-29

**FIRST-AID:** In case of contact, immediately flush skin or eyes with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. If inhaled, remove to fresh air. If ingested, do not induce vomiting. Get medical attention.

**IN CASE OF FIRE:** Use water fog, dry chemical, CO₂, or "alcohol" foam.

**IN CASE OF SPILL:** Sweep up material. Place residue in suitable container. Consult Material Safety Data Sheet for additional information.

---

**Section 16 - Other Information**

Chem One Ltd. ("Chem One") shall not be responsible for the use of any information, product, method, or apparatus herein presented ("Information"), and you must make your own determination as to its suitability and completeness for your own use, for the protection of the environment, and for health and safety purposes. You assume the entire risk of relying on this Information. In no event shall Chem One be responsible for damages of any nature whatsoever resulting from the use of this product or products, or reliance upon this Information. By providing this Information, Chem One neither can nor intends to control the method or manner by which you use, handle, store, or transport Chem One products. If any materials are mentioned that are not Chem One products, appropriate industrial hygiene and other safety precautions recommended by their manufacturers should be observed. Chem One makes no representations or warranties, either express or implied of merchantability, fitness for a particular purpose or of any other nature regarding this information, and nothing herein waives any of Chem One's conditions of sale. This information could include technical inaccuracies or typographical errors. Chem One may make improvements and/or changes in the product(s) and/or the program(s) described in this information at any time. If you have any questions, please contact us at Tel. 713-896-9966 or E-mail us at Safety@chemone.com.

**Key/Legend**

EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration

**Contact:** Sue Palmer-Koleman, PhD  
**Contact Phone:** (713) 896-9966

**Revision log**

08/23/00 4:44 PM SEP Changed company name, Sect 1 and 16, from Corporation to Ltd.
06/20/01 9:31 AM HDF Checked exposure limits; made changes to Sect 9; overall review and up-date, add SARA 311/312 Haz Ratings.
08/20/01 1:40 PM CLJ Add Shipments by Air information to Section 14, Changed contact to Sue, non-800 Chemtrec Num.
09/16/03 6:40PM HDF General review of entire MSDS. Up-graded Section 3 Health Hazard information, HMIS categories. Updated exposure limits in Section 8. Up-Dated Section 14 Transportation Information. Added information in Section 15 on Clean Air Act designation.
06/22/05 3:16PM SEP Update IATA Section 14
10/18/07 4:14 PM SEP Updated IATA Section 14
10/15/08 8:57 AM DLY Changed Chem One Physical Address, Section 1
12/03/2010 4:51 PM SEP Update IATA
1/16/2015 GHS Revision, all sections

This is the end of SDS # C1-127

Revised By:
SJC Compliance Education, Inc.
16516 El Camino Real Suite 417
Houston TX 77062

09/26/2018 Melanie Koch audited, and no changes were made.