

Material Safety Data Sheet Manganese carbonate

Section 1: Chemical Product and Company Identification

Product Name : Manganese carbonate
Chemical Formula : $MnCO_3$
Company Identification : Tradeasia International Pte Ltd
Email : contact@chemtradeasia.com

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS#	% by Weight
Manganese carbonate	598-62-9	100

Toxicological Data on Ingredients: Manganese carbonate LD50: Not available. LC50: Not available.

Section 3: Hazards Identification

Potential Acute Health Effects: Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

Potential Chronic Health Effects: CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance may be toxic to lungs, central nervous system (CNS). Repeated or prolonged exposure to the substance can produce target organs damage.

Section 4: First Aid Measures

Eye Contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation occurs.

Skin Contact: Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops.

Serious Skin Contact: Not available.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation: Not available.

Ingestion: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: Non-flammable.

Auto-Ignition Temperature: Not applicable.

Flash Points: Not applicable.

Flammable Limits: Not applicable.

Products of Combustion: Not available.

Fire Hazards in Presence of Various Substances: Not applicable.

Explosion Hazards in Presence of Various Substances: Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions: Not applicable.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards: Not available.

Section 6: Accidental Release Measures

Small Spill: Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

Large Spill: Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Section 7: Handling and Storage

Precautions: Do not breathe dust. Keep away from incompatibles such as oxidizing agents, acids.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 8: Exposure Controls/Personal Protection

Engineering Controls: Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Personal Protection: Safety glasses. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill: Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: TWA: 5 (mg(Mn)/m) from OSHA (PEL) [United States] TWA: 0.2 (mg(Mn)/m) from ACGIH (TLV) [United States] TWA: 1 STEL: 3 (mg(Mn)/m) from NIOSH [United States] Consult local authorities for acceptable exposure limits.

Section 9: Physical and Chemical Properties

Physical state and appearance	: Solid. (Powdered solid.)
Odor	: Not available.
Taste	: Not available.
Molecular Weight	: 114.95 g/mole
Color	: pink to almost white
pH (1% soln/water)	: Not applicable.
Boiling Point	: Not available.
Melting Point	: Decomposition temperature: >200°C (392°F)
Critical Temperature	: Not available.
Specific Gravity: Density	: 3.7 (Water = 1)
Vapor Pressure	: Not applicable.
Vapor Density	: Not available.
Volatility	: Not available.
Odor Threshold	: Not available.
Water/Oil Dist. Coeff.	: Not available.
Ionicity (in Water)	: Not available.
Dispersion Properties	: Not available.
Solubility	: Insoluble in cold water, hot water. Soluble in dilute inorganic acid. Insoluble in alcohol, ammonia. Almost insoluble in common organic acids, both concentrated or dilute.

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Incompatible materials, moisture

Incompatibility with various substances: Reactive with oxidizing agents, acids.

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Reactivity: Air sensitive. Will darken (yellow or brown) when exposed to air. Hygroscopic; keep container tightly closed.

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of Entry: Inhalation. Ingestion.

Toxicity to Animals: LD50: Not available. LC50: Not available.

Chronic Effects on Humans: May cause damage to the following organs: lungs, central nervous system (CNS).

Other Toxic Effects on Humans: Slightly hazardous in case of skin contact (irritant), of ingestion, of inhalation.

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: Manganese or Manganese compounds may cause adverse reproductive effects and birth defects (teratogenic) based on animal test data. Human reproductivity toxicity related to manganese deficiency or excess has not been established Human: passes the placental barrier, detected in maternal milk.

Special Remarks on other Toxic Effects on Humans: Acute Potential Health Effects: Skin: May cause skin irritation. It is not absorbed through the skin Eyes: May cause eye irritation. Inhalation: May cause respiratory tract irritation. Ingestion: Oral toxicity is low. No other toxicity information found for Manganese carbonate itself. TOXICITY INFORMATION FOR MANGANESE and MANGANESE COMPOUNDS: A. EFFECTS OF ACUTE EXPOSURE: Manganese has low toxicity in acute exposure. Acute manganese poisoning is rare. The main route of occupational exposure is inhalation. There is low (10 percent) gastrointestinal absorption of manganese. Manganese is mainly toxic to the central nervous system, producing psychiatric symptoms, dystonia, rigidity, decreased manual dexterity and gait disturbances. It is mildly irritating to the eyes, skin and mucous membranes. "Metal fume fever" can result from inhalation of manganese fumes. This flu-like condition includes fever, chills, upset stomach, vomiting, weakness, headache, body aches, muscle pains, dry mouth and throat, coughing, tightness of the chest, dyspnea and rales. Symptoms usually arise several hours after exposure and subside in a day. A high incidence of pneumonia has been reported after exposure to manganese dust or fumes. "Manganese pneumonia" has been reported in mine workers. The clinical signs of this pneumonia are acute alveolar inflammation, marked dyspnea, shallow respiration and subsequent facial cyanosis. Exposure can cause pneumonitis and an increased susceptibility to infection Inhalation of manganese aerosols produced alternating movements, torpor, nervousness, tremor, yawning, and cyanosis in monkeys, followed by permanent neurological effects. B. EFFECTS OF CHRONIC EXPOSURE The target organs for chronic manganese exposure are the

CENTRAL NERVOUS SYSTEM and LUNGS; chronic liver failure may also occur. The lowest exposure of manganese that will produce neurologic and pulmonary effects is not known. There are wide differences in susceptibility to manganese poisoning; the effects

Section 12: Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation: Possibly hazardous short-term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The product itself and its products of degradation are not toxic.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations

Waste Disposal: Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14: Transport Information

DOT Classification: Not a DOT controlled material (United States).

Identification: Not applicable.

Special Provisions for Transport: Not applicable.

Section 15: Other Regulatory Information

Federal and State Regulations: TSCA 8(b) inventory: Manganese carbonate SARA 313 toxic chemical notification and release reporting: Manganese and Manganese compounds

Other Regulations:

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). **EINECS:** This product is on the European Inventory of Existing Commercial Chemical Substances.

Other Classifications:

WHMIS (Canada): CLASS D-2B: Material causing other toxic effects (TOXIC).

DSCL (EEC): This product is not classified according to the EU regulations. S22- Do not breathe dust. S24/25- Avoid contact with skin and eyes.

HMIS (U.S.A.):

Health Hazard: 1
Fire Hazard: 0
Reactivity: 0
Personal Protection: E

National Fire Protection Association (U.S.A.):

Health: 1
Flammability: 0
Reactivity: 0
Specific hazard:

Protective Equipment: Gloves. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Safety glasses.

Section 16: Other Information

References: Not available.

Other Special Considerations: Not available.

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 way shall Tradeasia International Pte. Ltd. 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 Tradeasia International Pte. Ltd. has been advised of the possibility of such damages.