

SAFETY DATA SHEET

Preparation Date: No data available

Revision Date: 04/17/2015

Revision Number: G1

Product identifier

Product code: M1100
Product Name: MANGANESE CARBONATE, POWDER, REAGENT

Other means of identification

Synonyms: Manganese (II) Carbonate
CAS #: 598-62-9
RTECS # Not available
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: No information available.
Uses advised against No information available

Supplier: Spectrum Chemicals and Laboratory Products, Inc.
14422 South San Pedro St.
Gardena, CA 90248
(310) 516-8000

Order Online At: <https://www.spectrumchemical.com>

Emergency telephone number Chemtrec 1-800-424-9300
Contact Person: Martin LaBenz (West Coast)
Contact Person: Ibad Tirmiz (East Coast)

2. HAZARDS IDENTIFICATION

Classification

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Label elements

Not classified

Hazards not otherwise classified (HNOC)

Not Applicable

Other hazards

Not available

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %	Trade Secret
Manganese Carbonate 598-62-9	598-62-9	100	*

4. FIRST AID MEASURES

First aid measures

General Advice:

Poison information centers in each State capital city can provide additional assistance for scheduled poisons (13 1126)

Skin Contact:

Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention if irritation develops. Consult a physician if necessary.

Eye Contact:

Flush eye with water for 15 minutes. Get medical attention if irritation occurs. If symptoms persist, call a physician.

Inhalation:

Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion:

Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician if necessary.

Most important symptoms and effects, both acute and delayed

Symptoms

Health injuries are not known or expected under normal use.

Indication of any immediate medical attention and special treatment needed

Notes to Physician:

Treat symptomatically

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media:

The product is not flammable.

Unsuitable Extinguishing Media:

No information available.

Specific hazards arising from the chemical

Hazardous Combustion Products:

No information available.

Specific hazards:

No information available.

Special Protective Actions for Firefighters

Specific Methods:

No information available.

Special Protective Equipment for Firefighters:

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions: Ensure adequate ventilation. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid dust formation. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Remove all sources of ignition.

Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

Methods for cleaning up Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:

Provide sufficient air exchange and/or exhaust in work rooms. Keep away from incompatible materials.

Safe Handling Advice:

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Do not ingest. Do not breathe vapours/dust. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:

Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials.

Incompatible Materials:

Acids. Oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Components	OSHA	NIOSH	ACGIH	AIHA WHEEL
Manganese Carbonate - 598-62-9	None	None	None	None

Canada

Components	Alberta	British Columbia	Ontario	Quebec
Manganese Carbonate - 598-62-9	None	None	None	None

Australia and Mexico

Components	Australia	Mexico
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Manganese Carbonate 598-62-9	None	None
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Appropriate engineering controls

Engineering measures to reduce exposure: Ensure adequate ventilation. 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.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

- Eye protection:** Safety glasses. Safety glasses with side-shields.
- Skin and body protection:** Chemical resistant apron. Gloves. Long sleeved clothing.
- Respiratory protection:** Effective dust mask. Wear respirator with dust filter..
- Hygiene measures:** Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.

9. PHYSICAL AND CHEMICAL PROPERTIES

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Physical state: Solid.	Appearance: Powder.	Color: Pink. Off-white.
Odor: No information available	Taste No information available	Molecular/Formula weight: 114.95
Formula: MnCO ₃	Flash point (°C): No data available	Flashpoint (°C/°F): No information available.
Flash Point Tested according to: Not available	Lower Explosion Limit (%): No information available	Upper Explosion Limit (%): No information available
Autoignition Temperature (°C/°F): No information available	pH: No information available	Melting point/range(°C/°F): No information available
Boiling point/range(°C/°F): No information available	Decomposition temperature(°C/°F): >200°C/392°F	Bulk density: No information available
Specific gravity: No information available	Vapor pressure @ 20°C (kPa): No information available	Density (g/cm³): 3.7
Evaporation rate: No information available	Vapor density: No information available	VOC content (g/L): No information available
Odor threshold (ppm): No information available	Partition coefficient (n-octanol/water): No information available	Viscosity: No information available
Miscibility: No information available	Solubility: Almost insoluble in common organic acids, both concentrated or dilute Insoluble in alcohol Insoluble in Ammonia Insoluble in cold water Insoluble in hot water Soluble in dilute inorganic acid	

10. STABILITY AND REACTIVITY

Reactivity

Reactive with acids
Reactive with oxidizing agents
Air sensitive

Chemical stability

Stability:

Hygroscopic. Stable at normal conditions.

Possibility of Hazardous Reactions:

Hazardous polymerization does not occur

Conditions to avoid:

Heat. Ignition sources. Incompatible materials. Exposure to air. Exposure to moisture.

Incompatible Materials:

Acids. Oxidizing agents.

Hazardous decomposition products: No information available

Other Information

Corrosivity:

No information available

Product code: M1100

Product name: MANGANESE
CARBONATE, POWDER, REAGENT

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:

Ingestion. Inhalation.

Acute Toxicity

Component Information

Manganese Carbonate - 598-62-9

LD50/oral/rat = No information available

LD50/oral/mouse = No information available

LD50/dermal/rat = No information available

LD50/dermal/rabbit = No information available

LC50/inhalation/rat = No information available

LC50/inhalation/mouse = No information available

Other LD50 or LC50 information = No information available

Product Information

LD50/oral/rat =

VALUE- Acute Tox Oral = No information available

LD50/oral/mouse =

Value - Acute Tox Oral = No information available

LD50/dermal/rabbit

VALUE-Acute Tox Dermal = No information available

LD50/dermal/rat

VALUE -Acute Tox Dermal = No information available

LC50/inhalation/rat

VALUE-Vapor = No information available

VALUE-Gas = No information available

VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse

VALUE-Vapor = No information available

VALUE - Gas = No information available

VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: May cause skin irritation.

Eye Contact: May cause eye irritation.

Inhalation May cause respiratory tract irritation.

Ingestion Health injuries are not known or expected under normal use.

Aspiration hazard No information available

Product code: M1100

Product name: MANGANESE
CARBONATE, POWDER, REAGENT

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Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity

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 may or may NOT be reversible after removal from exposure. Reversibility of effects may be related to liver function.

Chronic manganese poisoning (MANGANISM) may follow substantial heavy exposure to manganese for 6 months to 3 years. Severe manganism has been reported mainly in miners, persons processing manganese ore, and WELDERS [WELDING].

Gross clinical manganese poisoning occurs mainly after very heavy exposures. Manganese toxicity occurs in three stages, with behavioral changes initially, followed by motor changes, and finally dystonia and gait changes.

Early signs of manganese poisoning include mood swings ('manganese madness'), nervousness, irritability, restlessness, fatigue, headache, apathy, languor, loss of appetite, insomnia and then somnolence, uncontrollable laughter followed by crying, hallucinations, delusions, compulsions, aggressiveness, weakness in the legs, memory loss, decreased libido, impotence, salivation and hearing loss.

Motor signs include and expressionless, mask-like appearance of the face, speech impairment with a low-volume monotone, decreased manual dexterity, clumsy movements and a spastic or slow gait with a tendency to fall while walking.

Finally, parkinsonian changes develop, with cogwheel rigidity, gait changes ('cock walk') and a low-frequency, low-amplitude tremor. Although severe manganese poisoning may not be fatal, it produces permanent crippling effects that clinically resemble parkinsonism. Progressive parkinsonism may occur many years after cessation of manganese exposure (Huan et al, 1993). Although manganism and parkinsonism have similar clinical manifestations, they differ in that manganism features a 'cock walk', difficulty in walking backwards, a tendency to fall backward when displaced, and a fine nonresting tremor.

Chronic inhalation of manganese dust can affect the lungs, causing manganese pneumonitis, bronchitis and nasal irritation, increased susceptibility to pneumonia, asthma, and a condition similar to 'metal fume fever'.

Anemia has been reported following chronic manganese exposure, perhaps due to interference with iron metabolism.

Chronic exposure to manganese in the drinking water at levels of less than 0.050 mg/L to 2.16 mg/L was not associated with adverse neurological effects, including parkinsonism and fine motor coordination.

Subtle neurological and motor effects correlating with blood manganese levels were

seen in persons with environmental exposure to manganese, and may reflect a continuum of severity. Early signs of environmental manganism may include slower responses and motor functions, memory and intellectual deficits, mood changes, and tremor.

Sensitization: No information available

Mutagenic Effects: No information available

Carcinogenic effects: Not considered carcinogenic

Components	ACGIH - Carcinogens	IARC	NTP	OSHA HCS - Carcinogens	Australia - Prohibited Carcinogenic Substances	Australia - Notifiable Carcinogenic Substances
Manganese Carbonate	Not listed	Not listed	Not listed	Not listed	Not listed	Not listed

Reproductive toxicity No data is available

Reproductive Effects: May cause adverse reproductive effects based on animal data.
Developmental Effects: No information available
Teratogenic Effects: May cause birth defects (teratogenic effects) based on animal test data

Specific Target Organ Toxicity

STOT - single exposure No information available
STOT - repeated exposure No information available
Target Organs: No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects: No data available.
Persistence and degradability: No information available
Bioaccumulative potential: No information available
Mobility: No information available

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:
Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:
Empty containers should be taken for local recycling, recovery or waste disposal

Components	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Manganese Carbonate	None	None	None	None

14. TRANSPORT INFORMATION

DOT

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: None
ERG No: No information available
Marine Pollutant: No data available
DOT RQ (lbs): No information available

TDG (Canada)

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Description: No information available

ADR

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Packing Group: No information available
Subsidiary Risk: No information available
Classification Code: No information available
Description: No information available
CEFIC Tremcard No: No information available

IMO / IMDG

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Description: No information available
IMDG Page: No information available
Marine Pollutant: No information available
MFAG: No information available
Maximum Quantity: No information available

RID

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Classification Code: No information available
Description: No information available

14. TRANSPORT INFORMATION

ICAO

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Description: No information available

IATA

UN-No: Not Regulated
Proper Shipping Name: No information available
Hazard Class: No information available
Subsidiary Risk: No information available
Packing Group: No information available
Description: No information available

15. REGULATORY INFORMATION

International Inventories

Components	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
<i>Manganese Carbonate</i>	Present	Present KE-23008	Present	Present (1)-156	Present	Present	Present 209-942-9

U.S. Regulations

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
<i>Manganese Carbonate</i>	Not Listed	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Components	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting <i>de minimis</i>
<i>Manganese Carbonate</i>	None	None	None	None	None

U.S. TSCA

Components	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
<i>Manganese Carbonate</i>	Not Applicable	Not Applicable

Canada

WHMIS hazard class:

D2B Toxic materials

Manganese Carbonate

D2B

Canada Controlled Products Regulation:

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

Components	WHMIS Ingredient Disclosure List -
Manganese Carbonate	0.1 %

Inventory

Components	Canada (DSL)	Canada (NDSL)
Manganese Carbonate	Present	Not Listed

Components	CEPA Schedule I - Toxic Substances	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Manganese Carbonate	Not listed	Not listed

EU Classification**R-phrase(s)**

R-phrase(s)

S -phrase(s)

S22 - Do not breathe dust.

S24/25 - Avoid contact with skin and eyes.

Components	Classification	Concentration Limits:	Safety Phrases
Manganese Carbonate		No information	

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:

None.

16. OTHER INFORMATION

16. OTHER INFORMATION

Revision Date: 04/17/2015
Prepared by: Sonia Owen

Disclaimer: All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet