

Material Safety Data Sheet

Original

Manganese Metal

ACC#88704

Section 1-Chemical Product and Company Identification

MSDS Name: Manganese Metal Flakes

Catalog Numbers: M78

Synonyms: Colloidal manganese; Magnacat

Company Identification:

Shanghai Minmetals Co., Ltd.

Sino-minemet

No.45 Renmin Road(N), Jishou, Shanghai , China

For information, Call: 0086-21-63815858

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Section 2-Composition, Information on Ingredients

CAS3	Chemical Name	Percent	EINECS/ELINCS
7439-96-5	Manganese	100%	231-105-1

Hazard Symbols: XI

Risk Phrases: 2 36/37/38 48

Section 3-Hazards Identification

EMEGERCY OVERVIEW

Appearance: reddish-gray or silvery solid. Caution! Moisture sensitive, Cause respiratory tract Irritation. Cause eye and skin irritation. May cause digestive tract irritation.

Target Organs: Central nervous system.

Potential Health Effects

Eye: Cause eye irritation

Skin: Cause skin irritation

Ingestion: may cause gastrointestinal irritation with nausea, vomiting and diarrhea.

Inhalation: May cause irritation of the respiratory tract with burning pain in the nose and throat, Coughing, wheezing, shortness of breath and pulmonary edema. May cause motor in coordination and speech abnormalities.

Chronic: Prolonged or repeated in halation of dusts may cause neurological damage. May cause reproductive and fetal effects.

Section 4-First Aid Measures

Eyes: Immediately flush eyes with plenty of water fir at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Skin: Get medical aid immediately. Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion: If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid immediately.

Inhalation: Remove from exposure to fresh air immediately. If not breathing, give artificial Respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician: Treat symptomatically and supportively.

Section 5- Fire fighting measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Dusts may be combustibile when exposed to heat, flame, or oxidizing agents.

Extinguishing Media: Use dry chemical to fight fire. DO NOT USE WATER!
Flash Point: Not available.
Auto ignition Temperature: Not available
Explosion Limits, Lower: Not available.
Upper: Not available.
NFPA Rating: (estimated) health: 2; flammability:1; Instability

Section 6-Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.
Spills / Leaks: Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up, then place into a suitable container for disposal. Avoid generating dusty conditions.

Section 7-Hanfing and Storage

Handling: Wash thoroughly after handling. Minimize dust generation and accumulation. Avoid Contact with eyes, skin, and clothing. Avoid ingestion and inhalation. Use only in a chemical fume Hood.
Storage: Store in a tightly closed container. Keep under a nitrogen blanket.

Section 8-Exposure Controls, Personal Protection

Engineering Controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use only under a chemical fume hood.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA-Final PELs
Manganese	0.2mg/m3 TWA	as Mn: 1 mg/m3 TWA as Mn: 500mg/m3 IDLH	C5 mg/m3(fume)

OSHA Vacated PELs: Manganese: fume, as Mn: 1mg/m3 TWA; compounds, as Mn: C5 mg/m3
Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA’s Eye and face protection regulations in 29CFR1910.133 or European Standard En 166.
Skin: Wear appropriate protective gloves to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR1910.134 or European standard EN 149.Always use a NIOSH or European Standard EN149 approved respirator when Necessary.

Section 9-Physical and Chemical Properties

Physical State: Solid **Appearance:** reddish-gray or silvery
Odor: None reported. **PH:** Not available. **Vapor Pressure:** 1mm Hg@ 1292C
Vapor Density: Not available. **Evaporation Rate:** Not available **Viscosity:** Not available.
Boiling Point: 1900 deg C **Freezing/Melting Point:**1260 deg C
Decomposition Temperature: Not available. **Solubility:** Insoluble in water.
Specific Gravity/Density:7.20 **Molecular Formula:** MN **Molecular Weight:**54.938

Section 10-Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.
Conditions to avoid: Incompatible Materials, dust generation, moisture, excess heat.
Incompatibilities with Other Materials: Acids; bases; moisture; halogens; phosphorous and sulfur oxides.
Hazardous Decomposition Products: No data available.
Hazardous Polymerization: Has not been reported.

Section 11-Toxicological Information

RTECS#

CAS#7439-96-5:009275000

LD50/LC50:

CAS#7439-96-5:

Draize tests, rabbit, eye: 500 mg/24H Mils;

Draize tests, rabbit, skin: 500 mg/24H Mild;

Oral, rat: LD50 = 9gm/kg;

Carcinogenicity:

CAS#7439-96-5: Not listed by ACGIH,IARC, Niosh, NTP< OR OSHA.

Epidemiology: No data available.

Teratogenicity: No data available.

Reproductive Effects: No data available.

Neurotoxicity: No data available.

Mutagenicity: No data available.

Other Studies: No data available.

Section 12-Ecological Information

No information available

Section 13-Disposal Consideration

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous Waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts.

261.3.Additionally,waste generators must consult state and local hazardous waste. Regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

Section 14-Transport Information

No information available.

Section 15-Regulatory Information

US FEDERAL

TSCA

CAS#7439-96-5 is listed on the TSCA inventory.

Health & Safety Reporting list.

Chemical Test Rules

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

SARA

Section 302(RQ)

None of the chemicals in this material have an RQ.

Section 302(TPQ)

None of the chemicals in this product have a TPQ.

Section 313

This material contains Manganese (CAS# 7439-96-5,100%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

Clean Air Act:

This material does not contain any hazardous air pollutants. This material does not contain any Class 2 Ozone depleters.

Clean Water Act:

None of the Chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the Chemicals in this product are considered highly hazardous by OSHA.

STATE:

Cas#7439-96-5 can be found in the following state right to know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.

California No Significant Risk Level: None of the chemical in this product are listed.

European/International Regulations**European Labeling in Accordance with EC Directives**

Hazard Symbols: XI

Risk Phrases: R 2 Risk of explosion by shock, friction, fire or other sources of ignition.

R 36/37/39 Irritationg to wyes, respiratory system and skin.

R 48 Danger of serious damage to health by Prolonged exposure.

Safety Phrases: S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

WGK (Water Danger/Protection) CAS#7439-96-5: No information available.

Canada-DSL/NDSL CAS#7439-96-5 is listed on Canada's DSL List.

Canada-WJMIS This product has a WHMIS classification of D2B.

Canadian Ingredient Disclosure List CAS#7439-96-5 is listed on the Canadian Ingredient Disclosure List.

Exposure Limits

CAS#7439-96-5: OEL-ARAB Republic of Egypt: TWA 5 mg/m³ OEL-AUSTRALIA: TWA 1mg/m³; STEL 3 mg/m³ (fume) OEL-BELGIUM; TWA 1 mg/m³; STEL 3 mg/m³ (fume) OEL-DENMARK: TWA 1mg/m³ (fume) OEL-DENMARK:TWA 2.5mg/m³ OEL-FINLAND:TWA 1mg/m³ (fume) OEL-FINLAND:TWA 2.5mg/m³ OEL-FRANCE; TWA 1mg/m³ (fume) OEL-SWEDEN: TWA 2.5mg/m³ OEL-SWITZERLAND: TWA 1mg/m³ (fume) OEL-SWITZERLAND: TWA 5mg/m³ OEL-THAILAND: TWA 5mg/m³ OEL-TURKEY: TWA 5mg/m³ (fume) OEL-UNITED KINGFOM: TWA 1MG/M³;STEL 3mg/m³ OEL IN BULGARIA, COLOMBA, JORDAN, KORAN check ACGIN TLV OEL IN NEW ZEALAND, DINGAPORE, VIETNAM check ACGI TLV.

Section 16-Additional Information

MSDS Creation Date:7/20/2001

Revision#1 Date:7/20/2015

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 Fisher 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 Fisher has been advised of the possibility of such damages.