

Safety Data Sheet

Section 1 - Chemical Identification

Product Name: **Manganese (IV) oxide**
Catalog Numbers: CI-1258
SDS number: 58
Intended use: Laboratory use

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Section 2 - Hazards Identification

Classification: Health,
Acute toxicity, Oral Category 2
Acute toxicity, Inhalation Category 4

Label:



Signal Word: **Warning**

Hazard Statement: Harmful if swallowed or inhaled

Precautionary

statement: Avoid breathing dust/fumes/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Wash skin thoroughly after handling. Observe good industrial hygiene practices.

If swallowed: Call a Poison center or doctor if you feel unwell. Rinse mouth. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center or doctor if you feel unwell.

Dispose of contents/container in accordance with federal/state/local regulations.

Other Hazards: None

Section 3 - Composition, Information on Ingredients

Chemical Name	Common Name	CAS#	%/W
Manganese (IV) oxide		1313-13-9	<=100

Section 4 - First Aid Measures

Call a doctor if you feel unwell.

EYES: Flush eyes with plenty of water. **If eye irritation persists:** Seek medical aid.

SKIN: Wash skin with plenty of water. Seek medical aid if irritation develops or persists.

INGESTION: Wash out mouth. Do not induce vomiting unless suggested by a doctor. Seek medical aid.

INHALATION: Remove to fresh air immediately. Seek medical aid.

Section 5 - Fire Fighting Measures

Suitable Extinguishing Media: Use water spray, dry chemical or carbon dioxide

Fire Hazards Arising from Chemical: manganese / manganese oxide

Specific Methods: Firefighters use fully protective impervious suit and self-contained respirator.

Section 6 - Accidental Release Measures

Personal Precautions: Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation. Avoid breathing dust.

Recovery method: Avoid dust creation. Sweep up. Dispose of material in according to local, state and federal regulations. Do not let material enter drains.

Section 7: Handling and Storage

Handling: Avoid dust creation. Provide appropriate exhaust ventilation. Wash thoroughly after handling.

Storage: Keep container closed store in a clean dry and well ventilated area.

See section 10 for conditions to avoid during storage.

Section 8 - Exposure Controls, Personal Protection

CAS#	Chemical Name	Form	OSHA PEL(mg/m3)	ACGIH TLV(mg/m3)	NIOSH REL(mg/m3)
1313-13-9	Manganese dioxide	fumes	STEL: C 5.0	TWA: 0.2	TWA: 1.0 STEL:3.0

Controls: Use adequate ventilation to keep airborne concentrations below the permissible exposure limits.

Handle in accordance with good industrial hygiene safety practices.

Eye and Face Protection: Wear appropriate protective eyeglasses or chemical safety goggles.

Skin: Wear appropriate quality gloves. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

Clothing: Wear protective clothing. Do not remove dust from clothing by blowing or shaking. A type of clothing will be selected according to concentration and control limits at the specific workplace.

Respirators: Use an approved respirator. Nuisance exposures - use type P95(US) particle respirator. Higher level protection use type OV/AG/P99 (US)

General Hygiene: Wash thoroughly after handling and before handling any food or drink.

SECTION 9 - Physical and Chemical Properties

Physical state: Solid

Appearance: Gray

Odor: None

PH: Not available.

Vapor pressure: N/A

Vapor density: N/A

Evaporation rate: N/A.

Viscosity: not available.

Melting point range: 535°C (995°F) .

Freezing point: N/A

Decomposition temperature: N/A.

Section 10 - Stability and Reactivity

Reactivity: No data available.

Stability: Stable under normal temperature and pressure conditions.

Conditions to avoid: No data available.

Hazardous Decomposition: No data available. In event of fire see section 5.

Incompatible materials: Strong acids, strong reducing agents, Organic materials.

Section 11 - Toxicological Information

Toxicological effects

Acute toxicity: No data available.

Skin corrosion/irritation: No data available.

Serious eye damage/eye irritation: No data available..

Respiratory sensitization: No data available.

Skin sensitization: No data available.

Germ cell mutagenicity: No data available.

Carcinogenicity:

OSHA - No component of the product present at levels greater than or equal to 0.1% is identified as probable or confirmed human carcinogen.

ACGIH - No component of the product present at levels greater than or equal to 0.1% is identified as probable or confirmed human carcinogen.

IARC - No component of the product present at levels greater than or equal to 0.1% is identified as probable or confirmed human carcinogen.

NTP - No component of the product present at levels greater than or equal to 0.1% is identified as probable or confirmed human carcinogen.

Reproductive toxicity: No data available.

Specific target organ toxicity - single exposure: No data available.

Specific target organ toxicity - repeated exposure: No data available.

Aspiration hazard: Not available.

Potential Health Effects

Inhalation: Chronic excess inhalational exposures may lead to pulmonary inflammation and subsequent reactive airway disease. Metal fume fever has been reported with manganese inhalation. Ingestion: May be harmful if ingested. Skin: Prolonged or repeated contact with dust may irritate skin. Eyes: Contact with eyes may cause irritation. Signs and symptoms of exposure: Toxicity from acute ingestion or acute inhalation of manganese is rare. Chronic inhalation over many years, usually from occupational exposure, may lead to manganese toxicity. Exercise appropriate procedures to minimize potential hazards.

Additional information: RTECS # – OP0350000

Section 12 - Ecological Information

Eco-toxicity: No data

Mobility in soil: No data.

Persistence and Degradability: No data

Bio-accumulative Potential: No data.

Section 13 - Disposal Considerations

Dispose of material and container according to applicable federal, state and local regulation. Contact a licensed disposal company to dispose of this material.

Section 14 - Transport Information

DOT: UN/NA number: UN1479 **Shipping name:** Oxidizing solid, n.o.s., (Manganese dioxide)

Hazard class: 5.1 **Packing group:** III **Reportable Quantity:** No **Marine pollutant:** No

Exceptions: Limited quantity equal to or less than 5 Kg **2012 ERG Guide #** 140

Section 15 - Regulatory Information

US Federal Regulations:

U.S. EPA TSCA Inventory List.

CERCLA Sections 102a/103 Reportable Quantities: Not Listed

SARA 313 Title III Section 302: Not regulated.

SARA 313 Title III Section 304: Not regulated

SARA 313 Title III Section 311/312: Acute Health Hazard / Chronic Health Hazard

SARA 313 Title III Section 313: (TRI reporting)

<u>Chemical Name</u>	<u>CAS#</u>	<u>%/W</u>
Manganese dioxide	1313-13-9	99.5

State Regulations: California Proposition 65: This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

Canadian: DSL - Listed / NDSL – Not Listed

Canadian: WHMIS C, D2B

Section 16 – OTHER INFORMATION

HMIS[®] (scale 0-4): Health(chronic): 2 Flammability: 0 Physical Hazard: 0

NFPA ratings: Health: 2 Flammability: 0 Instability: 0

The information provided in the SDS is believed to be correct to the best of our knowledge and is attended only as guidance for the safe use, storage and disposal of the product. Crossings Inc cannot assure the accuracy of the information provided and shall not be responsible or liable for any damage or losses resulting from use.

Date: November 10, 2015