

MATERIAL SAFETY DATA SHEET

Manganese Dioxide

SECTION 1 . Product and Company Identification

Product Name and Synonym: Manganese Dioxide
Product Code: M0963
Material Uses:
Manufacturer: Science Stuff
1104 Newport Ave
Austin, TX 78753
(512) 837-6020
Entry Date : 6/11/2013
Print Date: 6/11/2013
24 Hour Emergency Assistance : Chemtrec 800-424-9300
Canutec 613-996-6666

Health:	1			
Flammability:	0			
Reactivity:	3			
Hazard Rating:				
Least	Slight	Moderate	High	Extreme
0	1	2	3	4
NA=Not Applicable		NE=Not Established		

SECTION 2 HAZARD IDENTIFICATION

Heat, shock, friction, or contact with other materials may cause fire or explosion. Harmful if swallowed. Avoid breathing vapor or dust. Use adequate ventilation. Avoid contact with eyes, skin or clothes. Wash thoroughly after handling. Keep closed.

SECTION 3 MIXTURE COMPONENTS

SARA 313	Component	CAS Number	Percent Comp.	Dimension	Exposure Limits
<input type="checkbox"/>	Manganese Dioxide	CAS# 1313-13-9	100 %	W/W	OSHA TWA 5 mg/m ³ (Dust)

SECTION 4 FIRST AID MEASURES

Heat, shock, friction, or contact with other materials may cause fire or explosion. Harmful if swallowed. Avoid breathing vapor or dust. Use adequate ventilation. Avoid contact with eyes, skin or clothes. Wash thoroughly after handling. Keep closed.

FIRST AID: SKIN: Wash exposed area with soap and water. If irritation persists, seek medical attention.

EYES: Wash eyes with plenty of water for at least 15 minutes, lifting lids occasionally. Seek Medical Aid. INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen

INGESTION: If swallowed, induce vomiting immediately after giving two glasses of water. Never give anything by mouth to an unconscious person.

SECTION 5 FIRE FIGHTING MEASURES

Fire Extinguisher Type: Carbon Dioxide, dry chemical powder or appropriate foam
Fire / Explosion Hazards: Strong oxidizer. Contact with combustible materials may cause a fire. Contact with oxidizable materials may cause violent reaction.

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Fire Fighting Procedure: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and clothing.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Evacuate area. Wear self-contained breathing apparatus and protective clothing. Allow only qualified personnel to handle the spill.

SECTION 7 HANDLING AND STORAGE

Store in a cool dry location.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection: NIOSH approved dust mask

Ventilation

Local Exhaust

Mechanical

Protective Gloves: Gloves to prevent skin exposure as rubber or vinyl

Eye Protection: Safety Glasses w/
Side Shields

Other Protective Equipment: Wear appropriate clothing to prevent skin exposure

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Melting Point:	535 Deg C	Percent Volatile by Volume:	0
Boiling Point:	not available	Evaporation Rate	0
Vapor Pressure:	N/A	Evaporation Standard	
Vapor Density:	N/A	Auto Ignition Temp	N/A
Solubility in Water:	Insoluble	Lower Flamm. Limit in Air	N/A
Appearance /Odors:	Gray to black powder	Upper Flamm. Limit in Air	N/A
Flash Point:	N/A		
Specific Gravity:	5.0		

SECTION 10 STABILITY AND REACTIVITY INFORMATION

Stability: Stable

Conditions to Avoid: None known

Materials to Avoid: Easily oxidizing materials, sulfur, sulfides, phosphides, chlorates, peroxides, aluminum powder.
Hazardous Decomposition Products: Manganese sesquioxide

Hazardous polymerization: Will Not Occur

Conditions to Avoid: None known

SECTION 11 Toxicological Information

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SECTION 12 Ecological Information

SECTION 13 Disposal Considerations

SECTION 14 Transport Information

DOT Classification: UN1479, Oxidizing Solid, n.o.s. (Manganese Dioxide), 5.1, PG III

DOT Regulations may change from time to time. Please consult the most recent D.O.T. regulations.

SECTION 15 Regulatory Information

SECTION 16 Additional Information

Acute: Irritation to skin, eyes, lungs, mucous membranes and GI tract. Headaches, metal fume fever, chills. May increase incidence of upper respiratory infections. IF ingested may produce hypoglycemia, and decreased blood levels. Chronic: Systemic manganese poisoning can result from excessive inhalation to dust and involves impairment of the central nervous system. Possible muscle spasms, cramps, weakness, or other muscle disorders. Target organs: Central nervous system . Persons with pre-existing disorders may be more susceptible.

Flammability

Health

Reactivity

Revisions

NFPA

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