

FLINN SCIENTIFIC, INC.

Material Safety Data Sheet (MSDS)

MSDS #: 489.00

Revision Date: April 25, 2011

SECTION 1 — CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Manganese Dioxide

Flinn Scientific, Inc. P.O. Box 219 Batavia, IL 60510 (800) 452-1261

CHEMTREC Emergency Phone Number: (800) 424-9300

SECTION 2 — COMPOSITION, INFORMATION ON INGREDIENTS

Manganese dioxide

CAS#: 1313-13-9

SECTION 3 — HAZARDS IDENTIFICATION

Black or silver crystals or powder. Odorless.

Dust is irritant to eyes and respiratory tract. Avoid inhalation of dust.

Strong oxidizer and fire hazard.

Chronic exposure to manganese dust through inhalation can lead to respiratory problems and disorders of the central nervous system.

FLINN AT-A-GLANCE

Health-0

Flammability-0

Reactivity-2

Exposure-1

Storage-0

0 is low hazard, 3 is high hazard

SECTION 4 — FIRST AID MEASURES

Call a physician and seek medical attention for further treatment, observation, and support after first aid.

Inhalation: Remove to fresh air at once. If breathing has stopped, give artificial respiration immediately.

Eye or External: Immediately flush with fresh water for at least 15 minutes.

Internal: Do NOT induce vomiting. Rinse mouth. Give no more than 1-2 cups of water for dilution. Call a physician or poison control at once.

SECTION 5 — FIRE FIGHTING MEASURES

Nonflammable, noncombustible solid.

Strong oxidizer, fire hazard when in contact with combustible materials.

Fire Fighting Instructions: Use a triclass, dry chemical fire extinguisher. Firefighters should wear PPE and SCBA with full facepiece operated in positive pressure mode.

NFPA CODE

None

established

SECTION 6 — ACCIDENTAL RELEASE MEASURES

Restrict unprotected personnel from the area. Sweep up the spill, place in a sealed bag or container, and dispose. Ventilate area and wash spill site after material pickup is complete. See Sections 8 and 13 for further information.

SECTION 7 — HANDLING AND STORAGE

Flinn Suggested Chemical Storage Pattern: Inorganic #4. Store with hydroxides, oxides, silicates, and carbonates.

Store in a cool, dry place. Use and dispense in a hood.

SECTION 8 — EXPOSURE CONTROLS, PERSONAL PROTECTION

Avoid contact with eyes, skin, and clothing. Wear chemical splash goggles, chemical-resistant gloves, and a chemical-resistant apron. Use ventilation to keep airborne concentrations below exposure limits. Always wear a NIOSH-approved respirator with proper cartridges or a positive pressure, air-supplied respirator when handling this material in emergency situations (spill or fire).

Exposure guidelines: REL 1 mg/m³ (as Mn), STEL 3 mg/m³ (as Mn) (NIOSH, NIOSH)

SECTION 9 — PHYSICAL AND CHEMICAL PROPERTIES

Black or silver crystals or powder. Odorless.

Solubility: Soluble in hydrochloric acid. Insoluble in water.

Formula: MnO₂

Formula weight: 86.94

Melting point: 535 °C (decomposes)

Specific gravity: 5.026

SECTION 10 — STABILITY AND REACTIVITY

May ignite organic materials, and is a strong oxidant that reacts violently with combustible and reducing agents. Avoid contact with other oxidizing agents.

Shelf life: Indefinite, if stored properly.

SECTION 11 — TOXICOLOGICAL INFORMATION

Acute effects: Irritating dust.

Chronic effects: N.A.

Target organs: Nerves, lungs.

ORL-RAT LD₅₀: 3478 mg/kgIHL-RAT LC₅₀: N.A.SKN-RBT LD₅₀: N.A.

N.A. = Not available, not all health aspects of this substance have been fully investigated.

SECTION 12 — ECOLOGICAL INFORMATION

Data not yet available.

SECTION 13 — DISPOSAL CONSIDERATIONS

Please review all federal, state and local regulations that may apply, before proceeding.

Flinn Suggested Disposal Method #26a is one option.

SECTION 14 — TRANSPORT INFORMATION

Shipping name: Not regulated

Hazard class: N/A

UN number: N/A

N/A = Not applicable

SECTION 15 — REGULATORY INFORMATION

TSCA-listed, EINECS-listed (215-202-6), RCRA code D001.

SECTION 16 — OTHER INFORMATION

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**Consult your copy of the *Flinn Science Catalog/Reference Manual*
for additional information about laboratory chemicals.**