

MSDS Number: M **\*\*\*\*\* Effective Date: 08/17/06 \*\*\*\*\* Supercedes: 12/05/03**

24 Hour Emergency Telephone: 908-859-2151  
CHEMTREC: 1-800-424-9300

National Response in Canada  
Outside U.S. and Canada  
Chemtrec: 793-527-3887

NOTE: CHEMTREC CANNOT BE CALLED IN CANADA

Response Card: emergency  
used only in the event of chem  
ical spills, leaks, fires, etc.  
involving chemicals

Although emergency questions should be directed to Customer Service at 900-892-2547 for assistance

**MSDS** **Manganese Dioxide**

**Mallinckrodt Baker, Inc.** **Mallinckrodt Baker, Inc.**

Phillipsburg, NJ 08865

## MAN G A N E S E D I O X I D E

### Product Information

**Chemical Name** Manganous sulfate, monohydrate; sulfuric acid, manganese (2+) salt (1:1), monohydrate; Manganese (II) sulfate, monohydrate

**CA No** 7785-87-7 (Anhydrous) 10034-96-5 (Monohydrate)

**Molecular Weight** 169.02

**Chemical Formula** MnSO4 H2O

**Product Code**

J.T. Baker: 2550, 2552

Mallinckrodt: 2147, 6097, 6192, 6200, 7780

### Composition Information

Ingredient	CAS No	Percent	Hazardous
Manganese(II) Sulfate (1:1)	7785-87-7	98 - 100%	Yes

### Hazard Information

Emergency Overview





# Engineering Control Protection

## Airborne Exposure Limit

- OSHA Permissible Exposure Limit (PEL):  
5 mg/m<sup>3</sup> Ceiling for manganese compounds as Mn

- ACGIH Threshold Limit Value (TLV):

0.2 mg/m<sup>3</sup> (TWA) for manganese, elemental and inorganic compounds as Mn

## Engineering Control

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

## Personal Protective Equipment (PPE)

If the exposure limit is exceeded and engineering controls are not feasible, a half facepiece particulate respirator (NIOSH type N95 or better filters) may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-face piece particulate respirator (NIOSH type N100 filters) may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency, or respirator supplier, whichever is lowest. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator.

WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

Use a NIOSH type R or P filter for oil particles. Do not use a full-facepiece respirator in oxygen-deficient atmospheres.

700C (1292F) Loses all water @ 400-500C

**Physical Density (Air)**

No information found.

**Physical Properties (Air)**

No information found.

**Environmental Fate (Air)**

No information found.

## Stability and Reactivity

**Stability**

Stable under ordinary conditions of use and storage.

**Decomposition Products**

Oxides of sulfur and the contained metal.

**Polymerization**

Will not occur.

**Reactivity**

Powdered metals, strong oxidizers.

**Conditions to Avoid**

Incompatibles.

## Occupational Information

**Occupational Data**

Oral rat LD50: 2150 mg/kg. Investigated as a tumorigen, mutagen, reproductive effector.

**Reproductive Effects**

For manganese metal:

May damage the reproductive system. Has shown teratogenic effects in laboratory animals.

## Disposal Consideration

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

## Regulation

Not regulated.

## 5 Regulatory Information

-----\Chemical Inventory Status - Part 1\-----				
Ingredient	TSCA	EC	Japan	Australia
Manganese(II) Sulfate (1:1) (7785-87-				

## Quarterly

NA Health: Flammability: Reactivity:

Leakage

WARNING! HARMFUL IF SWALLOWED OR INHALED. AFFECTS LUNGS, CENTRAL NERVOUS SYSTEM, BLOOD AND KIDNEYS. MAY CAUSE IRRITATION TO SKIN, EYES, AND RESPIRATORY TRACT.

Leakage

Wash thoroughly after handling.

Avoid contact with eyes, skin and clothing.

Avoid breathing dust.

Keep container closed.

Use only with adequate ventilation.

Leakage

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If swallowed, induce vomiting immediately as directed by medical