



# MATERIAL SAFETY DATA SHEET

1533 W. Henrietta Rd.  
Avon, New York 14414  
(716) 226-6177

MSDS No. MM 290  
Effective Date March 26, 1999

## SECTION V HEALTH HAZARD DATA

MM 290

**Threshold Limited Value** None listed for Mercuric oxide (ACGIH 1992-93). TWA as Mercury [CAS No. 7439-97-6] Mercury vapor 0.05 mg/m<sup>3</sup> (AIR); in organic compounds 0.1 mg/m<sup>3</sup>.

**Effects of Overexposure** **TARGET ORGANS AFFECTED:** Respiratory system, central nervous system, kidneys, skin and eyes. **INGESTION:** Highly toxic. May cause severe nausea, vomiting, gastrointestinal irritation, burns to mouth and throat. **INHALATION:** Prolonged or repeated exposure to the dust causes upper respiratory tract irritation, lung injury, vomiting, chest and abdominal pain, fatigue, gingivitis, difficulty swallowing, irritability, tremors and kidney damage. **SKIN AND EYES:** Causes irritation or burns. Toxic by skin absorption.

**Emergency and First Aid Procedures** **INGESTION:** If swallowed, if conscious, give one or two glasses of water to drink, induce vomiting. Repeat until vomit fluid is clear. Call physician immediately. Never give anything by mouth to an unconscious person. **INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. **SKIN:** Flush thoroughly with soap and water. Get medical attention. **EYES:** Flush thoroughly with water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get immediate medical attention.

## SECTION VI REACTIVITY DATA

<b>Stability</b>	<b>Unstable</b>		<b>Conditions to Avoid</b>	Stable in air but turns dark on exposure to light. Protect from light, heat.
	<b>Stable</b>	X		

**Incompatibility (Materials to Avoid)** Strong reducing agents, strong oxidizing agents, amines, combustible materials, organic materials, phenol.

**Hazardous Decomposition Products** Oxide of carbon, mercury fumes. At 400°C becomes almost black but red again on cooling.

<b>Hazardous Polymerization</b>		<b>Conditions to Avoid</b>	Not applicable.
<b>May Occur</b>	<b>Will Not Occur</b>		
	X		

## SECTION VII SPILL OR LEAK PROCEDURES

**Steps to be taken in case material is released or spilled** Wearing suitable protective clothing, sweep up and place in a suitable container for disposal or reclamation. **DO NOT CREATE DUST!** Sprinkle area with sulfur to suppress mercury. **NOTE:** Sulfur dust is an irritant and flammable when ignited.

**Waste Disposal Method** Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only.

Dispose of in an approved chemical landfill or contract with a waste disposal service.

## SECTION VIII SPECIAL PROTECTION INFORMATION

**Respiration Protection (Specify Type)** None should be needed in normal laboratory handling. If dusty conditions prevail, work in ventilation hood or wear a NIOSH/MSHA-approved dust mask or respirator.

<b>Ventilation</b>	<b>Local Exhaust</b>	<b>Recommended.</b>	<b>Special</b>	No.
	<b>Mechanical (General)</b>	<b>Recommended.</b>	<b>Other</b>	No.

<b>Protective Gloves</b>	Rubber or plastic.	<b>Eye Protection</b>	Chemical safety glasses.
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**Other Protective Equipment** Goggles, smock, apron, eye wash station, ventilation hood, proper gloves.

## SECTION IX SPECIAL PRECAUTIONS

**Precautions to be Taken in Handling & Storing** Store in a cool, dry place away from strong reducing agents and fire hazards. Protect from light. Wash thoroughly after handling.  
Keep container tightly closed when not in use.

**Other Precautions** Read label on container before using. Do not wear contact lenses when working with chemicals.  
Do not get in eyes, on skin, on clothing. Do not breathe dust. Use with adequate ventilation. Keep away from food, drink and animal foods. When using do not eat, drink or smoke. Remove and wash contaminated clothing.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

<b>Revision</b> No. 5	<b>Date</b> 3/26/99	<b>Approved</b> Michael Raszeja	<b>Chemical Safety Coordinator</b> MR
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The information contained herein is furnished without warranty of any kind. Employers should use this information only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use of these materials and the safety and health of employees. \* Hazardous Materials Industrial Standards. Printed on recycled paper.

## SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

<b>Product</b>	MERCURIC OXIDE, RED	<p>CHEMTREC 800-424-9300 Day 716-226-6177</p>	<b>Health</b>	4
<b>Chemical Synonyms</b>	Mercury (II) Oxide, Red		<b>Fire</b>	0
<b>Formula</b>	HgO		<b>Reactivity</b>	0
<b>Unit Size</b>	up to 2.5 Kg.		<b>HMIS *</b>	
<b>C.A.S. No.</b>	21908-53-2	<b>NFPA HAZARD RATING</b>	LEAST SLIGHT MODERATE HIGH EXTREME	0 1 2 3 4

## SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Mercuric Oxide, Red	100%	See Section V.
<b>DANGER! POISON</b> <b>MAY</b>		
<b>BE FATAL IF SWALLOWED. HARMFUL IF</b>		
<b>INHALED OR ABSORBED THROUGH SKIN.</b>		

## SECTION III PHYSICAL DATA

<b>Melting Point (°F)</b>	Decomposes at 500°C (932°F).	<b>Specific Gravity (H<sub>2</sub>O = 1)</b>	11.1
<b>Boiling Point (°F)</b>	Not applicable.	<b>Percent Volatile by Volume (%)</b>	Non-volatile (NA).
<b>Vapor Pressure (mm Hg)</b>	Negligible as solid.	<b>Evaporation Rate (Butyl Acetate =1)</b>	0.6
<b>Vapor Density (Air=1)</b>	Not applicable.		
<b>Solubility in Water</b>	Slightly soluble in water at 20°C.		
<b>Appearance &amp; Odor</b>	Orange-red powder; no odor.		

## SECTION IV FIRE AND EXPLOSION HAZARD DATA

<b>Flash Point (Method Used)</b>	Non-flammable (NA).	<b>Flammable Limits in Air % by Volume</b>	NA	<b>Lower</b>	<b>Upper</b>
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**Extinguisher Media** Use any media suitable for extinguishing supporting fire.

### SPECIAL FIREFIGHTING PROCEDURES

In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus with full facepiece operated in positive pressure mode and full protective clothing.

(1996 EMERGENCY RESPONSE GUIDEBOOK, DOT P 5800.7, GUIDE PAGE NO. 151)

### UNUSUAL FIRE AND EXPLOSION HAZARDS

Highly toxic. Fire risk in contact with organic materials. Dangerous; when heated to decomposition, it emits highly toxic fumes of mercury and flammable oxygen gas which increases the flammability of combustibles; can react with reducing agents.

D.O.T. MERCURIC OXIDE, 6.1, UN 1641, PG II

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20