

# MATERIAL SAFETY DATA SHEET

24HR. EMERGENCY PHONE # CHEM-TREC 1-800-424-9300

Manufacturer: ProChem, Inc.  
826 Roosevelt Road  
Rockford, IL 61109

Phone: (815) 398-1788  
Fax: (815) 398-1810  
E-Mail: Prochem1@aol.com

---

## SECTION 1 Product Identification

---

**CHEMICAL NAME:** Mercury (II) oxide, red  
**CAS#:** 21908-53-2  
**FORMULA:** HgO  
**SYNONYM:** Mercuric oxide, Mercury(2+) oxide

---

## SECTION 2 Composition and Information on Ingredients

---

INGREDIENT:	CAS#	%	ACGIH (TWA)	OSHA (PEL)
Title Compound	21908-53-2	100	0.025mg/m3(Hg)	1mg/10m3(as Hg)

---

## SECTION 3 Hazards Identification

---

**EMERGENCY OVERVIEW:** Mercury oxides are poisonous by ingestion and inhalation. Acute effects include kidney failure. Prolonged exposure may permanently degrade the central nervous system.

**PRIMARY ROUTES OF EXPOSURE:** Ingestion, skin, Inhalation of dust.

**EYE CONTACT:** May cause mild to severe irritation of the eyes. May deposit mercury in the lens of the eye.

**SKIN CONTACT:** May cause mild to severe irritation of the skin. May be absorbed through the skin.

**INHALATION:** Dust may cause severe respiratory and gastrointestinal distress, and may damage the central nervous system.

**INGESTION:** Lack of appetite, abdominal cramps, vomiting, kidney failure, paralysis. Mercury binds to thiol groups of protein.

**CHRONIC HEALTH EFFECTS:** The chronic effects of mercury poisoning include stomatitis, tremors, psychic disturbances, excessive salivation, dermatitis, and pain on chewing. Other effects include loss of memory, insomnia, lack of confidence, irritability, depression, speech and gait impairment.

**ACUTE HEALTH EFFECTS:** Poison. Stomach upset and pain, mouth pain, vomiting, excessive salivation, urine production stops, urine products appear in the blood, ataxia (difficulty in moving).

---

## SECTION 4 First Aid Measures

---

**EYE EXPOSURE:** Immediately flush the eyes with copious amounts of water for at least 15 minutes. Assure flushing under eyelids. A victim may need assistance in keeping their eyelids open. Get immediate competent medical attention.

**SKIN EXPOSURE:** Wash affected area with water. Remove contaminated clothes if necessary. Seek medical

assistance if irritation persists.

**INHALATION:** Remove the victim to fresh air. Closely monitor the victim for signs of respiratory problems, such as difficulty in breathing, coughing, wheezing, or pain. In such cases seek immediate medical assistance.

**INGESTION:** Seek medical assistance immediately. Keep the victim calm. Give the victim water (only if conscious). Induce vomiting only if directed by medical personnel.

---

## **SECTION 5            Firefighting Measures**

---

**FLASH POINT:** not applicable

**AUTO IGNITION TEMPERATURE:** none

**EXPLOSION LIMITS:** none

**EXTINGUISHING MEDIUM:** none. Material is non flammable

**SPECIAL FIREFIGHTING PROCEDURES:** No special fire fighting procedures. the material is non flammable.

**HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS:** No hazardous combustion or decomposition products.

**UNUSUAL FIRE OR EXPLOSION HAZARDS:** If involved in a fire this material may emit fumes containing toxic mercury compounds.

---

## **SECTION 6            Accidental Release Measures**

---

**SPILL AND LEAK PROCEDURES:** Small spills can be mixed with vermiculite or sodium carbonate and swept up.

---

## **SECTION 7            Handling and Storage**

---

**HANDLING AND STORAGE:** No special storage conditions.

---

## **SECTION 8            Exposure Controls and Personal Protection**

---

**EYE PROTECTION:** Always wear approved safety glasses w/side shields, or safety goggles, face shield when handling a chemicals substance in the laboratory.

**SKIN PROTECTION:** Chemical-resistant.

**VENTILATION:** If possible, handle the material in an efficient fume hood.

**RESPIRATOR:** If in form of fine dust and ventilation is not available a respirator should be worn. The use of respirators requires a Respirator Protection Program to be in compliance with 29 CFR 19-10.134.

---

## **SECTION 9            Physical and Chemical Properties**

---

**COLOR AND FORM:** red powder

**MOLECULAR WEIGHT:** 216.59

**MELTING POINT (DEG. C.):** none

**BOILING POINT:** no data

**VAPOR PRESSURE:** no data

**SPECIFIC GRAVITY:** 11.14

**SOLUBILITY IN WATER:** insoluble

---

## SECTION 10 Stability and Reactivity

---

**STABILITY:** air and moisture stable

**HAZARDOUS POLYMERIZATION:** no hazardous polymerization

**CONDITIONS TO AVOID:** none

**INCOMPATIBILITY:** azides, fulminates and reducing agents

**DECOMPOSITION PRODUCTS:** none

---

## SECTION 11 Toxicological Information

---

**RTECS DATA:** Oral (rat); LD50: 18 mg/kg. Administration onto the skin (rat); LD50:315 mg/kg. Intramuscular (rat); LDLo: 22 mg/kg. Oral (mouse); LD50: 15 mg/kg. Intraperitoneal (mouse); LD50: 4500 ug/kg. Oral (rat); TDLo: 10800 ug/kg. Oral (rat); TDLo: 10800 ug/kg. Oral (mouse); TDLo: 34 mg/kg. Oral (mouse); TDLo: 225 mg/kg.

**MUTAGENIC EFFECTS:** no data

**TETRATOGENIC EFFECTS:** reproductive effector

**CARCINOGENIC EFFECTS:** tumorigen

To the best of our knowledge the toxicological effects of this compound have not been fully investigated.

---

## SECTION 12 Ecological Information

---

**ECOLOGICAL INFORMATION:** No information available

---

## SECTION 13 Disposal Considerations

---

**DISPOSAL:** Dispose of in according to local state and federal regulations.

---

## SECTION 14 Transportation Information

---

Mercury oxide, Class 6.1, UN 1641, PG II

---

## SECTION 15 Regulatory Information

---

**TSCA:** Listed in the TSCA inventory

**SARA (TITLE 313):** Title compound: see category N458 for reporting.

---

## SECTION 16 Other Information

---

**DISCLAIMER:** The information herein is believed to be accurate and reliable as of the date compiled. However, ProChem, Inc. makes no representation, warranty, or guarantee of any kind with respect to the information in this document or any use of the product based on the information.

**DATE PREPARED:** 06/05