

Common Name: **MERCURIC OXIDE**

Synonyms: Yellow Oxide of Mercury; Mercury Monoxide

CAS No: 21908-53-2

Molecular Formula: HgO

RTK Substance No: 2537

Description: Yellow to orange-yellow, odorless, crystalline powder

HAZARD DATA

Hazard Rating	Firefighting	Reactivity
3 - Health 0 - Fire 0 - Reactivity DOT#: UN 1641 ERG Guide #: 151 Hazard Class: 6.1 (Poison)	Extinguish fire using an agent suitable for type of surrounding fire. Mercuric Oxide itself does not burn but may intensify a fire. POISONOUS GASES ARE PRODUCED IN FIRE, including <i>Mercury vapor</i> . Use water spray to keep fire-exposed containers cool. Mercuric Oxide may ignite combustibles (wood, paper and oil).	Mercuric Oxide reacts violently with OXIDIZING AGENTS (such as PERCHLORATES, PEROXIDES, PERMANGANATES, CHLORATES, NITRATES, CHLORINE, BROMINE and FLUORINE); COMBUSTIBLES; PETROLEUM HYDROCARBONS; HYDROGEN PEROXIDE; DISULFUR DICHLORIDE; HYDROGEN TRISULFIDE; ACETYL NITRATE; and DIBORON TETRAFLUORIDE. Mercuric Oxide forms <i>shock-sensitive compounds</i> with METALS (such as POTASSIUM, SODIUM, MAGNESIUM and ZINC). Mercuric Oxide is not compatible with STRONG ACIDS (such as HYDROCHLORIC, SULFURIC and NITRIC); ETHANOL; and HYDRAZINE HYDRATE.

SPILL/LEAKS

Isolation Distance:

Spills: 25 meters (75 feet)

Fire: 800 meters (1/2 mile)

 Use special *Mercury vapor* suppressants or special vacuums for spill collection.

DO NOT wash into sewer.

Will accumulate in aquatic organisms.

Severe marine pollutant.

PHYSICAL PROPERTIES

Odor Threshold: Odorless

Flash Point: Noncombustible

Specific Gravity: 11.1 (water =1)

Water Solubility: Very slightly soluble

Boiling Point: Decomposes

Melting Point: Decomposes at 932°F (500°C)

Molecular Weight: 216.54

EXPOSURE LIMITS

OSHA: 0.1 mg/m³, 8-hr TWA

NIOSH: 0.05 mg/m³, 10-hr TWA; 0.1 mg/m³, Ceiling

ACGIH: 0.025 mg/m³, 8-hr TWA

IDLH: 10 mg/m³

PROTECTIVE EQUIPMENT

Gloves: Silver Shield®/4H®

Coveralls: DuPont Tychem® Polycoat, QC, CPF 1, SL and CPF 2; Kappler® Zytron® 300; and Saint-Gobain OneSUIT® TEC

Respirator: >0.05 mg/m³ - APR with filter specific for *Mercury*
 >0.5 mg/m³ - Supplied air

HEALTH EFFECTS

Eyes: Irritation and burns

Skin: Irritation and burns, skin rash, itching and gray skin color

Inhalation: Nose, throat and lung irritation with coughing, wheezing and shortness of breath

Nausea, vomiting and tremors

FIRST AID AND DECONTAMINATION

Remove the person from exposure.

Flush eyes with large amounts of water for at least 15 minutes. Remove contact lenses if worn. Seek medical attention immediately.

Quickly remove contaminated clothing and wash contaminated skin with large amounts of soap and water. Seek medical attention immediately.

Transfer to a medical facility.