

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Version 4.1 Revision Date 03.05.2010

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GENERIC EU MSDS - NO COUNTRY SPECIFIC DATA - NO OEL DATA

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product name : Mercury(II) oxide

Product Number : 276367

Brand : Sigma-Aldrich

Company : Sigma-Aldrich Brasil Ltda.
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2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

According to Regulation (EC) No1272/2008

Acute toxicity (Category 2)

Acute toxicity (Category 1)

Acute toxicity (Category 2)

Specific target organ toxicity - repeated exposure (Category 2)

Acute aquatic toxicity (Category 1)

Chronic aquatic toxicity (Category 1)

According to European Directive 67/548/EEC as amended.

Very toxic by inhalation, in contact with skin and if swallowed. Danger of cumulative effects. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Label elements

Pictogram



Signal word

Danger

Hazard statement(s)

H373

May cause damage to organs through prolonged or repeated exposure.

H330

Fatal if inhaled.

H300

Fatal if swallowed.

H310

Fatal in contact with skin.

H410

Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P260

Do not breathe dust/fume/gas/mist/vapours/spray.

P264

Wash hands thoroughly after handling.

P273

Avoid release to the environment.

P280

Wear protective gloves/protective clothing.

P284

Wear respiratory protection.

P301 + P310

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

Hazard symbol(s)

T+

Very toxic

N	Dangerous for the environment
R-phrases(s)	
R26/27/28	Very toxic by inhalation, in contact with skin and if swallowed.
R33	Danger of cumulative effects.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S-phrases(s)	
S13	Keep away from food, drink and animal feedingstuffs.
S28	After contact with skin, wash immediately with plenty of soap and water.
S45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S60	This material and its container must be disposed of as hazardous waste.
S61	Avoid release to the environment. Refer to special instructions/ Safety data sheets.

Other hazards - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms	: Mercuric oxide
Formula	: HgO
Molecular Weight	: 216,59 g/mol

CAS-No.	EC-No.	Index-No.	Classification	Concentration
Mercury monoxide				
21908-53-2	244-654-7	080-002-00-6	Acute Tox. 2; Acute Tox. 1; Acute Tox. 2; STOT RE 2; Aquatic Acute 1; Aquatic Chronic 1; H373, H330, H300, H310, H410 T+, N, R26/27/28 - R33 - R50/53	-

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE**Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place. Store in cool place.

Light sensitive.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Personal protective equipment****Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Eye protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance**

Form	powder
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Safety data

pH	no data available
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Melting point	500 °C - dec.
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Boiling point	no data available
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Flash point	not applicable
Ignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Water solubility	no data available

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Conditions to avoid

no data available

Materials to avoid

Hypophosphoric acid, fuels, and combustible materials (wood, paper, oil, etc.). Explosive with sulfur. Forms explosive mercury fulminate fulminate with alcohols. Forms heat-and shock-sensitive explosive yellow precipitate with phosphine. Solutions of mercuric nitrate form heat- or shock-sensitive acetylide with acetylene, which is explosive on contact with sulfuric acid. Explosive mixture with potassium cyanide when heated under confinement. Exothermic reaction with possible violent reaction with unsaturated or aromatic hydrocarbons., Reducing agents

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Mercury/mercury oxides.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Mercury monoxide)

Reproductive toxicity

Laboratory experiments have shown teratogenic effects.

Reproductive toxicity - rat - Oral

Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants).

Overexposure may cause reproductive disorder(s) based on tests with laboratory animals.

Developmental Toxicity - rat - Oral

Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Specific Developmental Abnormalities: Eye, ear.

Developmental Toxicity - mouse - Oral

Effects on Embryo or Fetus: Fetal death.

Developmental Toxicity - mouse - Oral

Specific Developmental Abnormalities: Other developmental abnormalities.

Specific target organ toxicity - single exposure

no data available

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation	May be fatal if inhaled. May cause respiratory tract irritation.
Ingestion	May be fatal if swallowed.
Skin	May be fatal if absorbed through skin. May cause skin irritation.
Eyes	May cause eye irritation.

Signs and Symptoms of Exposure

Liver injury may occur., Kidney injury may occur., Nausea, Vomiting, Diarrhoea, Tremors, Salivation

Additional Information

RTECS: OW8750000

12. ECOLOGICAL INFORMATION

Toxicity

no data available

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

Toxic to aquatic life with long lasting effects.

no data available

13. DISPOSAL CONSIDERATIONS

Product

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

ADR/RID

UN-Number: 1641 Class: 6.1 Packing group: II
Proper shipping name: MERCURY OXIDE

IMDG

UN-Number: 1641 Class: 6.1 Packing group: II EMS-No: F-A, S-A
Proper shipping name: MERCURY OXIDE
Marine pollutant: Marine pollutant

IATA

UN-Number: 1641 Class: 6.1
Proper shipping name: Mercury oxide

Packing group: II

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

16. OTHER INFORMATION**Text of H-code(s) and R-phrase(s) mentioned in Section 3**

Acute Tox.	Acute toxicity
Aquatic Acute	Acute aquatic toxicity
Aquatic Chronic	Chronic aquatic toxicity
H300	Fatal if swallowed.
H310	Fatal in contact with skin.
H330	Fatal if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H410	Very toxic to aquatic life with long lasting effects.
STOT RE	Specific target organ toxicity - repeated exposure
N	Dangerous for the environment
T+	Very toxic
R26/27/28	Very toxic by inhalation, in contact with skin and if swallowed.
R33	Danger of cumulative effects.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Further information

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