

Creation Date Oct-2013

ReRevision Date Oct-2018

Revision Number 2

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

Product Identifier

Product Description: Mercury (II) oxide
Product Grade: SQ
CAS No: 21908-53-2
Cat No. Q25384, Q25404
Synonyms Mercuric oxide

Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Laboratory chemicals
Uses advised against No Information available

Details of the supplier of the safety data sheet

Company Thermo Fisher Scientific India Pvt. Ltd
 403-404, B-wing, Delphi, Hiranandani Business Park,
 Powai, Mumbai 400076, INDIA.
E-mail address laboratorysolutions@thermofisher.com

Emergency telephone number

India Toll Free: 18 00 22 22 30
 Chemtrec US: (800)424-9300
 Chemtrec EU: 001(202)483-7616

SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Acute oral toxicity	Category 2
Acute dermal toxicity	Category 1
Acute Inhalation Toxicity - Vapors	Category 2
Specific target organ systemic toxicity (repeated exposure)	Category 2
Acute aquatic toxicity	Category 1
Chronic aquatic toxicity	Category 1

Classification according to EU Directives 67/548/EEC or 1999/45/EC

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16

Symbol(s) T+ - Very toxic
 N - Dangerous for the environment
R-phrases R33 - Danger of cumulative effects
Risk Combination Phrases R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
 R26/27/28 - Very toxic by inhalation, in contact with skin and if swallowed

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SECTION 2. HAZARDS IDENTIFICATION

Label Elements



Signal Word

Danger

Hazard Statements

H310 - Fatal in contact with skin
H410 - Very toxic to aquatic life with long lasting effects
H373 - May cause damage to organs through prolonged or repeated exposure
H330 - Fatal if inhaled
H300 - Fatal if swallowed

Precautionary Statements - EU (§28, 1272/2008)

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician
P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection
P361 - Remove/Take off immediately all contaminated clothing
P302 + P350 - IF ON SKIN: Gently wash with plenty of soap and water
P310 - Immediately call a POISON CENTER or doctor/ physician
P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing
P260 - Do not breathe dust/fume/gas/mist/vapors/spray
P273 - Avoid release to the environment

Other Hazards

No information available.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	EC-No.	Weight %	CAS-No	67/548/EEC Classification	CLP Classification - Regulation (EC) No 1272/2008	REACH No.
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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mercuric oxide 21908-53-2	EEC No. 244-654-7	100	21908-53-2	T+; R26/27/28 R33 N; R50-53	Acute Tox. 2 (H330) Acute Tox. 2 (H300) Acute Tox. 1 (H310) STOT RE 2 (H373) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	-
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For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16

SECTION 4. FIRST AID MEASURES

Description of first aid measures

Eye Contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.

Skin Contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Immediate medical attention is required.

Ingestion

Never give anything by mouth to an unconscious person. Drink plenty of water. Call a physician immediately. If possible drink milk afterwards.

Inhalation

Remove from exposure, lie down. Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Immediate medical attention is required.

Notes to Physician

Treat symptomatically

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable Extinguishing Media

Water spray. Carbon dioxide (CO₂). Dry chemical. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. chemical foam.

Extinguishing media which must not be used for safety reasons

No information available.

Special hazards arising from the substance or mixture

Burning produces obnoxious and toxic fumes.

Advice for fire-fighters

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As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

Environmental precautions

Prevent further leakage or spillage if safe to do so

Methods and material for containment and cleaning up

Soak up with inert absorbent material. Avoid dust formation. Prevent product from entering drains. Sweep up or vacuum up spillage and collect in suitable container for disposal. Do not flush into surface water or sanitary sewer system.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Remove and wash contaminated clothing before re-use. Use only in area provided with appropriate exhaust ventilation. Wash thoroughly after handling. Minimize dust generation and accumulation.

Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Keep locked-up.

Specific End Uses

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits

Component

Mercuric oxide

European Union	The United Kingdom	France	Belgium	Spain
TWA: 0.02 mg/m ³ 8 hr		VME: 0.1 mg/m ³ 8 heures. Hg Skin		Skin VLA-ED: 0.025 mg/m ³ 8 horas

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Component
Mercuric oxide

Italy	Germany	Portugal	The Netherlands	Finland
	MAK: 0.02 mg/m ³ 8 Stunden. inhalable fraction Skin Peak: 0.16 mg/m ³ TWA: 0.1 mg/m ³ 8 Stunden. inhalable fraction exposure factor 8	TWA: 0.025 mg/m ³ 8 horas Skin		

Component
Mercuric oxide

Austria	Denmark	Switzerland	Poland	Norway
Skin STEL: 0.4 mg/m ³ 15 Minuten TWA: 0.1 mg/m ³ 8 Stunden		STEL: 0.8 mg/m ³ 15 Minuten MAK: 0.1 mg/m ³ 8 Stunden		TWA: 0.02 mg/m ³ 8 timer

Biological limit values

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Component
Mercuric oxide

European Union	United Kingdom	France	Spain	Germany
		Total inorganic Mercury: 0.015 mg/L blood end of shift at end of workweek Total inorganic Mercury: 0.050 mg/g creatinine urine prior to shift		

Derived No Effect Level (DNEL)
Predicted No Effect Concentration (PNEC)

No information available.
No information available.

Exposure controls

Engineering Measures
Personal protective equipment
Eye Protection
Hand Protection
Skin and body protection
Respiratory Protection

Ensure adequate ventilation, especially in confined areas
Goggles
Protective gloves
Wear appropriate protective gloves and clothing to prevent skin exposure
Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

Hygiene Measures
Environmental exposure controls

Handle in accordance with good industrial hygiene and safety practice
No information available.

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Powder, Solid
Appearance	Yellow-orange
odor	odorless
pH	No information available.
Vapor Pressure	No information available.
Vapor Density	No information available.
Boiling Point/Range	No information available.
Melting Point/Range	500°C / 932°F
Flash Point	No information available.
Autoignition Temperature	No information available.
Molecular Formula	Hg O
Molecular Weight	216.59

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Chemical Stability

Stable under recommended storage conditions. Light sensitive.

Possibility of Hazardous Reactions

Hazardous Polymerization	No information available.
Hazardous Reactions .	No information available.

Conditions to Avoid

Avoid dust formation, Exposure to light, Incompatible products.

Incompatible Materials

Chlorine, Peroxides, Metals, Reducing agents, Powdered metals.

Hazardous Decomposition Products

oxygen.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

Acute Toxicity

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SECTION 11. TOXICOLOGICAL INFORMATION

Component Information

Component

Mercuric oxide

LD50 Oral	LD50 Dermal	LC50 Inhalation
18 mg/kg (Rat)	315 mg/kg (Rat)	

Chronic Toxicity

Carcinogenicity

There are no known carcinogenic chemicals in this product

Sensitization

No information available.

Mutagenic Effects

No information available

Reproductive Effects

No information available.

Developmental Effects

No information available.

Target Organs

No information available.

Other Adverse Effects

The toxicological properties have not been fully investigated. See actual entry in RTECS for complete information

Endocrine Disruptor Information

None known

SECTION 12. ECOLOGICAL INFORMATION

Toxicity

Ecotoxicity effects

Do not empty into drains

Persistence and degradability

No information available

Bioaccumulative potential

No information available.

Mobility in soil

No information available.

Results of PBT and vPvB assessment

Other adverse effects

No information available

SECTION 13. DISPOSAL CONSIDERATIONS

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SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from Residues / Unused Products Dispose of in accordance with local regulations

Contaminated Packaging Empty containers should be taken to local recyclers for disposal

SECTION 14. TRANSPORT INFORMATION

IMDG/IMO

UN-No 1641
Hazard Class 6.1
Packing Group II
Proper Shipping Name MERCURY OXIDE

ADR

UN-No 1641
Hazard Class 6.1
Packing Group II
Proper Shipping Name MERCURY OXIDE

IATA

UN-No 1641
Hazard Class 6.1
Packing Group II
Proper Shipping Name MERCURY OXIDE

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

International Inventories

Component	EINECS	ELINCS	NLP	TSCA	DSL	NDSL	PICCS	ENCS	CHINA	AICS	KECL
Mercuric oxide	244-654-7	-		X	X	-	X	X	X	X	X

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

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DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
PICCS - Philippines Inventory of Chemicals and Chemical Substances
ENCS - Japan Existing and New Chemical Substances
CHINA - China Inventory of Existing Chemical Substances
AICS - Inventory of Chemical Substances
KECL - Existing and Evaluated Chemical Substances

Chemical Safety Assessment

SECTION 16. OTHER INFORMATION

Full text of R-phrases referred to under sections 2 and 3

R33 - Danger of cumulative effects

R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

R26/27/28 - Very toxic by inhalation, in contact with skin and if swallowed

Creation Date	Oct-2013
Next Revision Date	Oct-2023
Revision Summary	SDS section 1 updated and update of Format.

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

Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet