

Creation Date Oct-2013

Revision Date Oct-2018

Revision Number 2

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

**Product Identifier**

**Product Description:** Mercury (II) sulfate  
**Product Grade:** ER, SQ  
**CAS No:** 7783-35-9  
**Cat No.** Q15554, Q25394  
**Synonyms** Mercuric sulfate, Mercuric sulphate

**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](mailto: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 1
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** R26/27/28 - Very toxic by inhalation, in contact with skin and if swallowed  
 R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

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## SECTION 2. HAZARDS IDENTIFICATION

### Label Elements



### Signal Word

**Danger**

### Hazard Statements

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

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

- P260 - Do not breathe dust/fume/gas/mist/vapors/spray
- P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection
- P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician
- P302 + P350 - IF ON SKIN: Gently wash with plenty of soap and water
- P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing
- 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.
Mercuric sulfate 7783-35-9	EEC No. 231-992-5	> 99	7783-35-9	T+; R26/27/28 R33 N; R50-53	Acute Tox. 2 (H300) Acute Tox. 1 (H310) STOT RE 2 (H373) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	-

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

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## SECTION 4. FIRST AID MEASURES

### Description of first aid measures

#### **Eye Contact**

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

#### **Skin Contact**

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

#### **Ingestion**

Call a physician immediately. Clean mouth with water.

#### **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 (CO<sub>2</sub>). Dry chemical. chemical foam.

#### **Extinguishing media which must not be used for safety reasons**

No information available.

#### **Special hazards arising from the substance or mixture**

Thermal decomposition can lead to release of irritating gases and vapors

#### **Advice for fire-fighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## 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**

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Wear self-contained breathing apparatus and protective suit. Sweep up or vacuum up spillage and collect in suitable container for disposal. Do not let this chemical enter the environment.

## SECTION 7. HANDLING AND STORAGE

### Precautions for Safe Handling

Do not breathe dust. Do not breathe vapors or spray mist. Do not get in eyes, on skin, or on clothing. Do not ingest. Use only in area provided with appropriate exhaust ventilation.

### Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep container tightly closed. Keep locked-up. Store under an inert atmosphere.

### Specific End Uses

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### Exposure limits

Component  
Mercuric sulfate

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

Component  
Mercuric sulfate

Italy	Germany	Portugal	The Netherlands	Finland
	MAK: 0.02 mg/m <sup>3</sup> 8 Stunden. inhalable fraction Skin Peak: 0.16 mg/m <sup>3</sup> TWA: 0.1 mg/m <sup>3</sup> 8 Stunden. inhalable fraction exposure factor 8	TWA: 0.1 mg/m <sup>3</sup> 8 horas TWA: 0.025 mg/m <sup>3</sup> 8 horas Skin		TWA: 0.05 mg/m <sup>3</sup> 8 tunteina Skin

Component  
Mercuric sulfate

Austria	Denmark	Switzerland	Poland	Norway
Skin STEL: 0.4 mg/m <sup>3</sup> 15 Minuten TWA: 0.1 mg/m <sup>3</sup> 8 Stunden		STEL: 0.8 mg/m <sup>3</sup> 15 Minuten MAK: 0.1 mg/m <sup>3</sup> 8 Stunden		TWA: 2 mg/m <sup>3</sup> 8 timer TWA: 0.02 mg/m <sup>3</sup> 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

European Union	United Kingdom	France	Spain	Germany

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Mercuric sulfate

		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		
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**Derived No Effect Level (DNEL)** No information available.  
**Predicted No Effect Concentration (PNEC)** No information available.

## Exposure controls

**Engineering Measures** Ensure adequate ventilation, especially in confined areas  
**Personal protective equipment**  
**Eye Protection** Goggles  
**Hand Protection** Protective gloves  
**Skin and body protection** Wear appropriate protective gloves and clothing to prevent skin exposure  
**Respiratory Protection** 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** Handle in accordance with good industrial hygiene and safety practice  
**Environmental exposure controls** No information available.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical State** Powder, Solid  
**Appearance** Off-white  
**odor** odorless  
**pH** 1 50 g/l aq.sol.  
**Vapor Pressure** negligible  
**Vapor Density** No information available.  
**Boiling Point/Range** No information available.  
**Melting Point/Range** No information available.  
**Decomposition temperature** 450 °C  
**Flash Point** No information available.  
**Autoignition Temperature** No information available.  
**Water Solubility** reacts  
**Specific Gravity** 6.470  
**Molecular Formula** Hg O4 S  
**Molecular Weight** 296.64

## SECTION 10. STABILITY AND REACTIVITY

### Reactivity

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## Chemical Stability

Stable under normal conditions. Hygroscopic. Air sensitive. Light sensitive.

## Possibility of Hazardous Reactions

**Hazardous Polymerization** Hazardous polymerization does not occur.  
**Hazardous Reactions .** No information available.

## Conditions to Avoid

Exposure to air, Exposure to light, Incompatible products, Exposure to moist air or water.

## Incompatible Materials

Strong oxidizing agents.

## Hazardous Decomposition Products

Sulfur oxides.

## SECTION 11. TOXICOLOGICAL INFORMATION

### Information on Toxicological Effects

#### Acute Toxicity

**Product Information** No acute toxicity information is available for this product

#### Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Mercuric sulfate	57 mg/kg ( Rat )	625 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

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## 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

### 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	1645
Hazard Class	6.1
Packing Group	II
Proper Shipping Name	MERCURY SULPHATE

### ADR

UN-No	1645
Hazard Class	6.1
Packing Group	II

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## SECTION 14. TRANSPORT INFORMATION

Proper Shipping Name MERCURY SULPHATE

### IATA

UN-No 1645  
Hazard Class 6.1  
Packing Group II  
Proper Shipping Name MERCURY SULPHATE

## 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 sulfate	231-992-5	-		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

**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

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

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



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## SECTION 16. OTHER INFORMATION

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**