

**Mercuric Chloride  
CAS No 7487-94-7**

**MATERIAL SAFETY DATA SHEET  
SDS/MSDS**

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1 Product identifiers**

Product name : Mercuric Chloride

CAS-No. : 7487-94-7

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

Identified uses : Laboratory chemicals, Industrial & for professional use only

**1.3 Details of the supplier of the safety data sheet**

Company : Central Drug House (P) Ltd  
7/28 Vardaan House  
New Delhi-10002  
INDIA

Telephone : +91 11 49404040

Email : [care@cdhfinechemical.com](mailto:care@cdhfinechemical.com)

**1.4 Emergency telephone number**

Emergency Phone # : +91 11 49404040 (9:00am - 6:00 pm) [Office hours]

**SECTION 2: Hazards identification**

**2.1 Classification of the substance or mixture**

**Classification according to Regulation (EC) No 1272/2008**

Acute toxicity, Oral (Category 2), H300

Acute toxicity, Dermal (Category 1), H310

Skin corrosion (Category 1B), H314

Germ cell mutagenicity (Category 2), H341

Reproductive toxicity (Category 2), H361f

Specific target organ toxicity - repeated exposure (Category 1), H372

Acute aquatic toxicity (Category 1), H400

Chronic aquatic toxicity (Category 1), H410

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

**2.2 Label elements**

**Labelling according Regulation (EC) No 1272/2008**

Pictogram



Acute toxicity Aspiration Irritant Hazardous to the environment

Signal word	Danger
Hazard statement(s)	
H300 + H310	Fatal if swallowed or in contact with skin
H314	Causes severe skin burns and eye damage.
H341	Suspected of causing genetic defects.
H361f	Suspected of damaging fertility.
H372	Causes damage to organs through prolonged or repeated exposure.
H410	Very toxic to aquatic life with long lasting effects.
Precautionary statement(s)	
P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P301 + P330 + P331 + P310	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/ physician.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 + P310	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Supplemental Hazard Statements	none

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. Rapidly absorbed through skin.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Synonyms	:	Mercuric chloride
Formula	:	Cl <sub>2</sub> Hg
Molecular weight	:	271,50 g/mol
CAS-No.	:	7487-94-7
EC-No.	:	231-299-8
Index-No.	:	080-010-00-X

#### Hazardous ingredients according to Regulation (EC) No 1272/2008

Component		Classification	Concentration
<b>Mercuric chloride</b>			
CAS-No.	7487-94-7	Acute Tox. 2; Acute Tox. 1;	<= 100 %
EC-No.	231-299-8	Skin Corr. 1B; Muta. 2; Repr.	
Index-No.	080-010-00-X	2; STOT RE 1; Aquatic Acute	
		1; Aquatic Chronic 1; H300, H310, H314, H341, H361f, H372, H400, H410	
		M-Factor - Aquatic Acute: 100	

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

## **SECTION 4: First aid measures**

### **4.1 Description of 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**

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

#### **In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

#### **If swallowed**

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### **4.2 Most important symptoms and effects, both acute and delayed**

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

### **4.3 Indication of any immediate medical attention and special treatment needed**

No data available

## **SECTION 5: Firefighting measures**

### **5.1 Extinguishing media**

#### **Suitable extinguishing media**

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

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

Hydrogen chloride gas, Mercury/mercury oxides.

### **5.3 Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

### **5.4 Further information**

No data available

## **SECTION 6: Accidental release measures**

### **6.1 Personal precautions, protective equipment and emergency procedures**

Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

### **6.2 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.

### **6.3 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.

### **6.4 Reference to other sections**

For disposal see section 13.

## **SECTION 7: Handling and storage**

### **7.1 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.

For precautions see section 2.2.

## 7.2 Conditions for safe storage, including any incompatibilities

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

Light sensitive. Moisture sensitive. Product is sensitive to light and moisture.

Storage class (TRGS 510): Non-combustible, acute toxic Cat. 1 and 2 / very toxic hazardous materials

## 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

# SECTION 8: Exposure controls/personal protection

## 8.1 Control parameters

Components with workplace control parameters

## 8.2 Exposure controls

### Appropriate engineering controls

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

### Personal protective equipment

#### Eye/face 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 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.

#### 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.

#### 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).

#### Control of environmental exposure

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

# SECTION 9: Physical and chemical properties

## 9.1 Information on basic physical and chemical properties

- |  |                                    |
|--|------------------------------------|
| a) Appearance                              | Form: solid                        |
| b) Odour                                   | No data available                  |
| c) Odour Threshold                         | No data available                  |
| d) pH                                      | No data available                  |
| e) Melting point/freezing point            | Melting point/range: 277 °C - lit. |
| f) Initial boiling point and boiling range | 302 °C at 1.013 hPa                |
| g) Flash point                             | Not applicable                     |
| h) Evaporation rate                        | No data available                  |

- |   |                         |
|---|-------------------------|
| i) Flammability (solid, gas)                    | No data available       |
| j) Upper/lower flammability or explosive limits | No data available       |
| k) Vapour pressure                              | 1,7 hPa at 236 °C       |
| l) Vapour density                               | No data available       |
| m) Relative density                             | 5,440 g/cm <sup>3</sup> |
| n) Water solubility                             | No data available       |
| o) Partition coefficient: n-octanol/water       | No data available       |
| p) Auto-ignition temperature                    | No data available       |
| q) Decomposition temperature                    | No data available       |
| r) Viscosity                                    | No data available       |
| s) Explosive properties                         | No data available       |
| t) Oxidizing properties                         | No data available       |

## 9.2 Other safety information

No data available

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

Avoid moisture. Light.

### 10.5 Incompatible materials

Strong oxidizing agents, Strong bases

### 10.6 Hazardous decomposition products

Other decomposition products - No data available  
In the event of fire: see section 5

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Dermal - Rat - 41 mg/kg

#### Skin corrosion/irritation

Skin - Rabbit

Result: Severe skin irritation - 24 h

#### Serious eye damage/eye irritation

Eyes - Rabbit

Result: Severe eye irritation - 24 h

#### Respiratory or skin sensitisation

No data available

#### Germ cell mutagenicity

In vitro tests showed mutagenic effects which were not observed with in vivo test.

## **Carcinogenicity**

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Mercuric chloride)

## **Reproductive toxicity**

Suspected human reproductive toxicant

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

## **Specific target organ toxicity - single exposure**

No data available

## **Specific target organ toxicity - repeated exposure**

Causes damage to organs through prolonged or repeated exposure.

## **Aspiration hazard**

No data available

## **Additional Information**

RTECS: OV9100000

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., Cough, Shortness of breath, Headache, Nausea

## **SECTION 12: Ecological information**

### **12.1 Toxicity**

Toxicity to fish	mortality LOEC - Lates calcarifer - 0,113 mg/l - 96,0 h LC50 - Oncorhynchus mykiss (rainbow trout) - 0,016 mg/l - 96,0 h
Toxicity to daphnia and other aquatic invertebrates	EC50 - Daphnia magna (Water flea) - 0,002 mg/l - 48 h
Toxicity to algae	Growth inhibition EC50 - Ditylum brightwellii - 0,01 mg/l - 5 d

### **12.2 Persistence and degradability**

No data available

### **12.3 Bioaccumulative potential**

Bioaccumulation	Pimephales promelas (fathead minnow) - 0,50 µg/l Bioconcentration factor (BCF): 5.680
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### **12.4 Mobility in soil**

No data available

### **12.5 Results of PBT and vPvB assessment**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

### **12.6 Other adverse effects**

Very toxic to aquatic life with long lasting effects.

## **SECTION 13: Disposal considerations**

### **13.1 Waste treatment methods**

#### **Product**

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

**Contaminated packaging**  
Dispose of as unused product.

#### SECTION 14: Transport information

##### 14.1 UN number

ADR/RID: 1624                      IMDG: 1624                      IATA: 1624

##### 14.2 UN proper shipping name

ADR/RID:    MERCURIC CHLORIDE  
IMDG:        MERCURIC CHLORIDE  
IATA:        Mercuric chloride

##### 14.3 Transport hazard class(es)

ADR/RID: 6.1                      IMDG: 6.1                      IATA: 6.1

##### 14.4 Packaging group

ADR/RID: II                      IMDG: II                      IATA: II

##### 14.5 Environmental hazards

ADR/RID: yes                      IMDG Marine pollutant: yes                      IATA: no

##### 14.6 Special precautions for user

No data available

#### SECTION 15: Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 453/2010.

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

Mercuric chloride                      CAS-No.: 7487-94-7  
REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII)  
Shall not be placed on the market, or used, as a substance or in mixtures  
See Annex XVII to Regulation (EC) no 1907/2006 for Conditions of restriction

Mercuric chloride                      CAS-No.: 7487-94-7  
Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals  
Countries for which no notification is required: Please refer to PIC circular at [www.pic.int/](http://www.pic.int/)

Mercuric chloride                      CAS-No.: 7487-94-7  
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Countries for which no notification is required: Please refer to PIC circular at [www.pic.int/](http://www.pic.int/)

##### 15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

#### SECTION 16: Other information

##### Full text of H-Statements referred to under sections 2 and 3.

H300                      Fatal if swallowed.  
H300 + H310            Fatal if swallowed or in contact with skin  
H310                      Fatal in contact with skin.  
H314                      Causes severe skin burns and eye damage.  
H341                      Suspected of causing genetic defects.  
H361f                     Suspected of damaging fertility.

H372	Causes damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

**Further information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Central Drug House (P) Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.cdhfinechemical.com](http://www.cdhfinechemical.com) for additional terms and conditions of sale.