

# MATERIAL SAFETY DATA SHEET

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## SECTION I NAME

**Product** MERCUROUS CHLORIDE  
**Chemical Synonyms** Calomel, Mercury (I) Chloride  
**Formula** HgCl  
**Unit(s) Size** 100, 500 grams  
**C.A.S. No.** 7546-30-7

## 24 HOUR EMERGENCY ASSISTANCE

**CHEMTREC**  
800-424-9300  
Day 716-226-6177  
Night 716-334-4222  
**NFPA HAZARD RATING**  
LEAST SLIGHT MODERATE HIGH EXTREME  
0 1 2 3 4

Health	4
Fire	0
Reactivity	0

## SECTION II HAZARDOUS INGREDIENTS OF MIXTURES

Principal Hazardous Component(s)	%	TLV Units
Mercurous Chloride	100%	See Section V

**DANGER!** ☠️ **POISON** ☠️ **MAY BE FATAL IF INHALED**  
**OR SWALLOWED, MAY CAUSE DELAYED BURNS.**

## SECTION III PHYSICAL DATA

<b>Melting Point (°F)</b>	302°C	<b>Specific Gravity (H<sub>2</sub>O = 1)</b>	7.150 at 25°C
<b>Boiling Point (°F)</b>	Sublimes 400-500°C	<b>Percent Volatile by Volume (%)</b>	100% above 400°C
<b>Vapor Pressure (mm Hg)</b>	Negligible as solid	<b>Evaporation Rate (n-Butyl Ac. = 1)</b>	Non-volatile (NA)
<b>Vapor Density (Air = 1)</b>	Data not listed		
<b>Solubility in Water</b>	Insoluble in water		
<b>Appearance and Odor</b>	Heavy, white crystals or crystalline powder; no odor.		

## SECTION IV FIRE AND EXPLOSION HAZARD DATA

<b>Flash Point (Method Used)</b>	Non-flammable (NA)	<b>Flammable Limits in Air % by Volume</b>	NA	Lower	Upper
<b>Extinguisher Media</b>	Use any media suitable for extinguishing supporting fire.				

**SPECIAL FIREFIGHTING PROCEDURES**  
In fire conditions, wear a NIOSH-approved self-contained breathing apparatus and full protective clothing.

**UNUSUAL FIRE AND EXPLOSION HAZARDS**  
Dangerous when heated to decomposition, it emits highly toxic mercury vapors and hydrogen chloride when heated.

**D.O.T.** NON-REGULATED.

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20

## SECTION V HEALTH HAZARD DATA

**Threshold Limited Value** TWA: As Mercury [CAS No. 7439-97-6] (ACGIH 1983-84)  
Mercury Vapor 0.05 mg/m<sup>3</sup> (AIR); inorganic compounds 0.1 mg/m<sup>3</sup>.

**Effects of Overexposure**  
**INGESTION:** Excessive doses (120 mg.) may cause mercury poisoning. Symptoms of mercury poisoning are violent pain, vomiting, diarrhea, kidney shock, intestinal hemorrhage and death.  
**INHALATION:** Prolonged or repeated exposure to the dust causes upper respiratory tract irritation, lung injury, vomiting, chest and abdominal pain, fatigue, gingivitis, difficulty swallowing, irritability, tremors and kidney damage.  
**SKIN AND EYES:** May produce delayed burns.

**Emergency and First Aid Procedures**  
**INGESTION:** If swallowed, if conscious, give one or two glasses of water, induce vomiting. Repeat until vomit fluid is clear. Call physician immediately.  
**SKIN:** Flush thoroughly with water, then wash with soap and water.  
**INHALATION:** Remove to fresh air. If ill effects develop, get medical attention.  
**EYES:** Immediately flush eyes with large amounts of water for at least 15 minutes, lifting upper and lower eyelids. Get prompt medical attention.

## SECTION VI REACTIVITY DATA

<b>Stability</b>	Unstable	<b>Conditions to Avoid</b>	Decomposes by alkalis. Darkens on exposure to light, decomposes into mercuric chloride and metallic mercury.
	Stable		

**Incompatibility (Materials to avoid)**  
Bromides, Iodides, alkali chlorides, sulfates, sulfites, carbonates, hydroxides, lime water acacia, ammonia, silver salts.

**Hazardous Decomposition Products**  
Thermal decomposition or heating may produce highly toxic mercury vapors and chlorine gas.

<b>Hazardous Polymerization</b>	<b>Conditions to Avoid</b>
May Occur	Will Not Occur
	x
	Not applicable.

## SECTION VII SPILL OR LEAK PROCEDURES

**Steps to be taken in case material is released or spilled**  
Wear suitable protective clothing, sweep up and place in a suitable container for disposal. Wash spill area with soap and water.

**Waste Disposal Method**  
Dispose of in an approved chemical landfill or contract with a licensed waste disposal service.

Discharge, treatment, or disposal may be subject to federal, state, or local laws.

## SECTION VIII SPECIAL PROTECTION INFORMATION

<b>Respiration Protection (Specify Type)</b>	None should be needed in normal laboratory handling. If dusty conditions prevail work in a ventilation hood or wear a NIOSH-approved dust mask or respirator.			
<b>Ventilation</b>	Local Exhaust	Yes	Special	No
	Mechanical (General)	Yes	Other	No
<b>Protective Gloves</b>	Rubber or plastic		<b>Eye Protection</b>	Chemical safety glasses
<b>Other Protective Equipment</b>	Goggles, smock, apron, eye wash station, ventilation hood, proper gloves.			

## SECTION IX SPECIAL PRECAUTIONS

**Precautions to be Taken in Handling and Storing**  
Store in a cool, dry place away from fire hazards.  
Wash thoroughly after handling.  
Keep container tightly closed when not in use. Wash contaminated clothing before reuse.

**Other Precautions**  
Read label on container before using.  
Do not breathe dust. Avoid contact with eyes or mucous membranes or prolonged contact with skin.

For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

**Rev. No.** No. 1 **Date** 1/12/87 **Approved** *[Signature]* **Chemical Safety Coordinator**

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