







<a href="#">Mercury(II) Chloride</a>		<a href="#">Pricing &gt;</a>
<b>Linear Formula</b>	HgCl <sub>2</sub>	
<b>Pubchem CID</b>	24085	
<b>MDL Number</b>	MFCD00011043	
<b>EC No.</b>	231-299-8	
<b>IUPAC Name</b>	chloromercury	
<b>Beilstein/Reaxys No.</b>	N/A	
<b>SMILES</b>	Cl[Hg][Hg]Cl	
<b>Inchl Identifier</b>	InChI=1S/2ClH.2Hg/h2*1H;;/q;;2*+1/p-2	
<b>Inchl Key</b>	ZOMNIUBKTOKEHS-UHFFFAOYSA-L	
<b>Signal Word</b>	Danger	
<b>Hazard Statements</b>	H300 + H310-H314-H341-H361f-H372-H410	
<b>Hazard Codes</b>	Xn,N	
<b>Precautionary Statements</b>	P260-P280-P303 + P361 + P353-P304 + P340 + P310-P305 + P351 + P338	
<b>Flash Point</b>	Not applicable	
<b>Risk Codes</b>	22-36/37/38-50/53	
<b>Safety Statements</b>	13-24/25-46-60-61	
<b>RTECS Number</b>	OV9100000	
<b>Transport Information</b>	UN 1624 6.1 / PGII	
<b>WGK Germany</b>	3	

GHS Pictograms	<a href="#"><u>GHS05 Corrosive</u></a>
	
	<a href="#"><u>GHS09 Environment</u></a>
	
	<a href="#"><u>GHS08 Health Hazard</u></a>
	
	<a href="#"><u>GHS06 Skull and Crossbones</u></a>
	
	<a href="#"><u>GHS07 Exclamation Point</u></a>
	
	<a href="#"><u>GHS03 Oxidizer</u></a>
	

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## SAFETY DATA SHEET

Date Accessed: 04/25/2024

Date Revised: 01/15/2022

### SECTION 1. IDENTIFICATION

**Product Identifiers:** All applicable American Elements product codes for CAS #7487-94-7

**Relevant identified uses of the substance:**  
Scientific research and development

Supplier details:  
American Elements  
10884 Weyburn Ave.  
Los Angeles, CA 90024  
Tel: +1 310-208-0551  
Fax: +1 310-208-0351

Emergency telephone number:  
Domestic, North America +1 800-424-9300  
International +1 703-527-3887

## SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture in accordance with 29 CFR 1910 (OSHA HCS)

GHS06 Skull and crossbones

Acute Tox. 2 H300 Fatal if swallowed.

GHS08 Health hazard

Muta. 2 H341 Suspected of causing genetic defects.

Repr. 2 H361 Suspected of damaging fertility or the unborn child.

STOT RE 1 H372 Causes damage to the lung, the kidneys, the liver, the heart, the reproductive system, the blood, the brain, the endocrine system and the immune system through prolonged or repeated exposure. Route of exposure: Oral, Inhalative, Dermal.

GHS05 Corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Hazards not otherwise classified

No data available

GHS label elements

GHS label elements, including precautionary statements

Hazard pictogram



GHS05

GHS06

GHS08

Signal word

Danger

Hazard statements

H300 Fatal if swallowed.

H314 Causes severe skin burns and eye damage.

H341 Suspected of causing genetic defects.

H361 Suspected of damaging fertility or the unborn child.

H372 Causes damage to the lung, the kidneys, the liver, the heart, the reproductive system, the blood, the brain, the endocrine system and the immune system through prolonged or repeated exposure.

Route of exposure: Oral, Inhalative, Dermal.

Precautionary statements

P260 Do not breathe

dust/fume/gas/mist/vapors/spray.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor/...

P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.  
P405 Store locked up.  
P501 Dispose of contents/container in accordance  
with local/regional/national/international regulations.  
WHMIS classification  
D1A - Very toxic material causing immediate and  
serious toxic effects  
D2A - Very toxic material causing other toxic effects  
E - Corrosive material  
Classification system  
HMIS ratings (scale 0-4)  
(Hazardous Materials Identification System)  
HEALTH  
FIRE  
REACTIVITY  
3  
0  
1  
Health (acute effects) = 3  
Flammability = 0  
Physical Hazard = 1  
Other hazards  
Results of PBT and vPvB assessment  
PBT: N/A  
vPvB: N/A

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### **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substances  
CAS No. / Substance Name: 7487-94-7 Mercury(II)  
chloride  
Identification number(s):  
EC number: 231-299-8  
Index number: 080-010-00-X

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### **SECTION 4. FIRST AID MEASURES**

Description of first aid measures  
General information  
Immediately remove any clothing soiled by the  
product.  
In case of irregular breathing or respiratory arrest  
provide artificial respiration.  
If inhaled:  
Supply patient with fresh air. If not breathing, provide  
artificial respiration. Keep patient warm.  
Seek immediate medical advice.  
In case of skin contact:  
Immediately wash with soap and water; rinse  
thoroughly.

Seek immediate medical advice.  
In case of eye contact:  
Rinse opened eye for several minutes under running water. Consult a physician.  
If swallowed:  
Do not induce vomiting; immediately call for medical help.  
Information for doctor  
Most important symptoms and effects, both acute and delayed  
Causes severe skin burns.  
Causes serious eye damage.  
Indication of any immediate medical attention and special treatment needed  
No data available

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## **SECTION 5. FIREFIGHTING MEASURES**

Extinguishing media  
Suitable extinguishing agents  
Product is not flammable. Use fire-fighting measures that suit the surrounding fire.  
Special hazards arising from the substance or mixture  
If this product is involved in a fire, the following can be released:  
Mercury oxide  
Hydrogen chloride (HCl)  
Advice for firefighters  
Protective equipment:  
Wear self-contained respirator.  
Wear fully protective impervious suit.

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## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures  
Use personal protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation  
Environmental precautions:  
Do not allow product to enter drains, sewage systems, or other water courses.  
Methods and materials for containment and cleanup:  
Use neutralizing agent.  
Dispose of contaminated material as waste according to section 13.  
Ensure adequate ventilation.  
Prevention of secondary hazards:  
No special measures required.  
Reference to other sections

See Section 7 for information on safe handling  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

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## **SECTION 7. HANDLING AND STORAGE**

### Handling

Precautions for safe handling

Keep container tightly sealed.

Store in cool, dry place in tightly closed containers.

Ensure good ventilation at the workplace.

Information about protection against explosions and fires:

The product is not flammable

Conditions for safe storage, including any incompatibilities

Requirements to be met by storerooms and receptacles:

No special requirements.

Information about storage in one common storage facility:

Store away from strong bases.

Store away from oxidizing agents.

Further information about storage conditions:

Keep container tightly sealed.

Store in cool, dry conditions in well-sealed containers.

Specific end use(s)

No data available

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## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Additional information about design of technical systems:

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

Control parameters

Components with limit values that require monitoring at the workplace:

7487-94-7 Mercury(II) chloride (100.0%)

PEL (USA) Long-term value: 0.1 mg/m<sup>3</sup>  
as Hg; see OSHA standard interpretation memo

REL (USA) Long-term value: 0.05\* mg/m<sup>3</sup>

Ceiling limit value: 0.1 mg/m<sup>3</sup>  
as Hg; \*Vapor; Skin

TLV (USA) Long-term value: 0.025 mg/m<sup>3</sup>  
as Hg; Skin; BEI

EL (Canada) Long-term value: 0.025 mg/m<sup>3</sup>  
as Hg; Skin, R

EV (Canada) Long-term value: 0.025 mg/m<sup>3</sup>  
as Hg, Skin

Ingredients with biological limit values:

7487-94-7 Mercury(II) chloride (100.0%)

BEI (USA) 35 µg/L

Medium: urine

Time: prior to shift

Parameter: Total inorganic mercury (background)  
15 µg/L

Medium: blood

Time: end of shift at end of workweek

Parameter: Total inorganic mercury (background)

Additional information:

No data

Exposure controls

Personal protective equipment

Follow typical protective and hygienic practices for handling chemicals.

Keep away from foodstuffs, beverages and feed.

Remove all soiled and contaminated clothing immediately.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Maintain an ergonomically appropriate working environment.

Breathing equipment:

Use suitable respirator when high concentrations are present.

Protection of hands:

Impervious gloves

Inspect gloves prior to use.

Suitability of gloves should be determined both by material and quality, the latter of which may vary by manufacturer.

Penetration time of glove material (in minutes)

No data available

Eye protection:

Tightly sealed goggles

Full face protection

Body protection:

Protective work clothing.

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance:

Form: Powder

Color: White

Odor: Odorless

Odor threshold: No data available.  
pH: N/A  
Melting point/Melting range: 280-282 °C (536-540 °F)  
Boiling point/Boiling range: 302 °C (576 °F)  
Sublimation temperature / start: No data available  
Flammability (solid, gas): No data available.  
Ignition temperature: No data available  
Decomposition temperature: No data available  
Autoignition: No data available.  
Danger of explosion: No data available.  
Explosion limits:  
Lower: No data available  
Upper: No data available  
Vapor pressure at 20 °C (68 °F): 0.0001 hPa  
Density at 20 °C (68 °F): 5.4 g/cm<sup>3</sup> (45.063 lbs/gal)  
Relative density: No data available.  
Vapor density: N/A  
Evaporation rate: N/A  
Solubility in / Miscibility with Water at 20 °C (68 °F):  
69 g/l  
Partition coefficient (n-octanol/water): No data  
available.  
Viscosity:  
Dynamic: N/A  
Kinematic: N/A  
Other information: No data available

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## **SECTION 10. STABILITY AND REACTIVITY**

Reactivity  
No data available  
Chemical stability  
Stable under recommended storage conditions.  
Thermal decomposition / conditions to be avoided:  
Decomposition will not occur if used and  
stored according to specifications.  
Possibility of hazardous reactions  
Reacts with strong oxidizing agents  
Conditions to avoid  
No data available  
Incompatible materials:  
Bases  
Oxidizing agents  
Hazardous decomposition products:  
Mercury oxide  
Hydrogen chloride (HCl)

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## **SECTION 11. TOXICOLOGICAL INFORMATION**

Information on toxicological effects



Acute toxicity:

Fatal if swallowed.

Swallowing will lead to a strong corrosive effect on mouth and throat and to the danger of perforation of esophagus and stomach.

The Registry of Toxic Effects of Chemical Substances (RTECS) contains acute toxicity data for this substance.

LD/LC50 values that are relevant for classification:

Oral LD50 1 mg/kg (rat)

Skin irritation or corrosion:

Causes severe skin burns.

Eye irritation or corrosion:

Causes serious eye damage.

Sensitization:

No sensitizing effects known.

Germ cell mutagenicity:

Suspected of causing genetic defects.

The Registry of Toxic Effects of Chemical Substances (RTECS) contains mutation data for this substance.

Carcinogenicity:

EPA-C: Possible human carcinogen: limited evidence of carcinogenicity in animals in the absence of human data.

IARC-3: Not classifiable as to carcinogenicity to humans.

ACGIH A4: Not classifiable as a human carcinogen:

Inadequate data on which to classify the agent in terms of its carcinogenicity in humans and/or animals. The Registry of Toxic Effects of Chemical Substances (RTECS) contains tumorigenic and/or carcinogenic and/or neoplastic data for this substance.

Reproductive toxicity:

Suspected of damaging fertility or the unborn child.

The Registry of Toxic Effects of Chemical Substances (RTECS) contains reproductive data for this substance.

Specific target organ system toxicity - repeated exposure:

Causes damage to the lung, the kidneys, the liver, the heart, the reproductive system, the blood, the brain, the endocrine system and the immune system through prolonged or repeated exposure. Route of exposure: Oral, Inhalative, Dermal.

Specific target organ system toxicity - single exposure:

No effects known.

Aspiration hazard:

No effects known.

Subacute to chronic toxicity:

The Registry of Toxic Effects of Chemical Substances (RTECS) contains multiple dose toxicity data for this substance.

Additional toxicological information:

To the best of our knowledge the acute and chronic

toxicity of this substance is not fully known

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## **SECTION 12. ECOLOGICAL INFORMATION**

Toxicity

Aquatic toxicity:

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Ecotoxical effects:

Remark:

Very toxic for aquatic organisms

Additional ecological information:

Do not allow product to reach groundwater, water courses, or sewage systems, even in small quantities.

Danger to drinking water if even extremely small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

May cause long lasting harmful effects to aquatic life.

Avoid transfer into the environment.

Very toxic for aquatic organisms

Results of PBT and vPvB assessment

PBT:

N/A

vPvB:

N/A

Other adverse effects

No data available

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## **SECTION 13. DISPOSAL CONSIDERATIONS**

Waste treatment methods

Recommendation

Consult official regulations to ensure proper disposal.

Uncleaned packagings:

Recommendation:

Disposal must be made according to official regulations.

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## **SECTION 14. TRANSPORT INFORMATION**

UN-Number

DOT, IMDG, IATA

UN1624

UN proper shipping name

DOT  
Mercuric chloride  
IMDG  
MERCURIC CHLORIDE, MARINE POLLUTANT  
IATA  
MERCURIC CHLORIDE  
Transport hazard class(es)  
DOT  
Class  
6.1 Toxic substances.  
Label  
6.1  
Class  
6.1 (T5) Toxic substances  
Label  
6.1  
IMDG  
Class  
6.1 Toxic substances.  
Label  
6.1  
IATA  
Class  
6.1 Toxic substances  
Label  
6.1  
Packing group  
DOT, IMDG, IATA  
II  
Environmental hazards:  
Environmentally hazardous substance, solid; Marine  
Pollutant  
Marine pollutant (IMDG):  
Symbol (fish and tree)  
Special precautions for user  
Warning: Toxic substances  
EMS Number:  
F-A,S-A  
Segregation groups  
Heavy metals and their salts (including their  
organometallic compounds), mercury and mercury  
compounds  
Transport in bulk according to Annex II of  
MARPOL73/78 and the IBC Code  
N/A  
Transport/Additional information:  
DOT  
Marine Pollutant (DOT):  
No  
Remarks:  
Special marking with the symbol (fish and tree).  
UN "Model Regulation":  
UN1624, Mercuric chloride, 6.1, II

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## SECTION 15. REGULATORY INFORMATION

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

GHS GHS label elements, including precautionary statements

Hazard pictograms

GHS05

GHS06

GHS08

Signal word

Danger

Hazard statements

H300 Fatal if swallowed.

H314 Causes severe skin burns and eye damage.

H341 Suspected of causing genetic defects.

H361 Suspected of damaging fertility or the unborn child.

H372 Causes damage to the lung, the kidneys, the liver, the heart, the reproductive system, the blood, the brain, the endocrine system and the immune system through prolonged or repeated exposure.

Route of exposure: Oral, Inhalative, Dermal.

Precautionary statements

P260 Do not breathe

dust/fume/gas/mist/vapors/spray.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor/...

P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

National regulations

All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.

All components of this product are listed on the Canadian Domestic Substances List (DSL).

SARA Section 313 (specific toxic chemical listings)

7487-94-7 Mercury(II) chloride

California Proposition 65

Prop 65 - Chemicals known to cause cancer  
Substance is not listed.

Prop 65 - Developmental toxicity

7487-94-7 Mercury(II) chloride

Prop 65 - Developmental toxicity, female

Substance is not listed.  
Prop 65 - Developmental toxicity, male  
Substance is not listed.  
Information about limitation of use:  
For use only by technically qualified individuals.  
This product is subject to the reporting requirements  
of section 313 of the Emergency Planning and  
Community Right to Know Act of 1986 and  
40CFR372.  
Other regulations, limitations and prohibitive  
regulations  
Substance of Very High Concern (SVHC) according to  
the REACH Regulations (EC) No. 1907/2006.  
Substance is not listed.  
The conditions of restrictions according to Article 67  
and Annex XVII of the Regulation (EC) No 1907/2006  
(REACH) for the manufacturing, placing on the market  
and use must be observed.  
Substance is not listed.  
Annex XIV of the REACH Regulations (requiring  
Authorisation for use)  
Substance is not listed.  
Chemical safety assessment:  
A Chemical Safety Assessment has not been carried  
out.

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## **16. OTHER INFORMATION**

Safety Data Sheet according to Regulation (EC) No.  
1907/2006 (REACH). 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. American Elements shall not be held  
liable for any damage resulting from handling or from  
contact with the above product. See reverse side of  
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