SAFETY DATA SHEET: MERCURIC CHLORIDE

1. IDENTIFICATION

Product Name: MERCURIC CHLORIDE
Synonyms: Mercury bichloride
Formula and Formula Weight: HgCl₂ 271.50
Integra numbers beginning with: M534.10
Recommended Use: Commercial/industrial use
Restrictions on Use: No information available

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2. HAZARDS IDENTIFICATION

OSHA Classification: Acute Toxicity - Oral 2 Fatal if swallowed.
OSHA Classification: Acute Toxicity - Dermal 1 Fatal in contact with skin.
OSHA Classification: Skin Corrosion/Irritation 1B Causes severe skin burns and eye damage.
OSHA Classification: Eye Damage/Irritation 1 Causes serious eye damage.
OSHA Classification: Toxic to Reproduction 1 Causes damage to organs through prolonged or repeated exposure.
OSHA Classification: Specific Target Organ Toxicity (repeated exposure) 2 Suspected of damaging fertility or the unborn child.

Signal Word: Danger

Precautionary Statements

Prevention:
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe dust, fume, gas, mist, vapors, spray.
Do not get in eyes, on skin, or on clothing.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves, protective clothing, eye protection, face protection.

Response
If swallowed: Rinse mouth. Do NOT induce vomiting. Immediately call a poison center, doctor.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water, shower.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a poison center, doctor.
Take off immediately all contaminated clothing and wash it before reuse.

Storage
Store locked up.

Disposal
Dispose of contents, container in accordance with all governmental regulations.

Hazard Not Otherwise Classified: No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>Synonyms</th>
<th>CAS #</th>
<th>% Weight</th>
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<tbody>
<tr>
<td>Mercuric chloride</td>
<td>Mercury bichloride</td>
<td>07487-94-7</td>
<td>100</td>
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4. FIRST AID MEASURES

Inhalation: Remove person to fresh air and keep comfortable for breathing. If not breathing, give artificial respiration. If breathing is difficult administer oxygen. Seek medical attention.

Eye Contact: Flush eyes with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Seek immediate medical attention.

Skin Contact: Immediately remove contaminated clothing. Flush skin with water for at least 15 minutes. Seek immediate medical attention.
Ingestion: Do not induce vomiting. If victim is conscious, rinse mouth, give water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Additional notes: Violent poison. May be fatal if swallowed, inhaled, or absorbed through the skin. Symptoms and effects include burns to skin, eyes, mucous membranes, respiratory tract; coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting.

5. FIRE-FIGHTING MEASURES

Extinguishing Media: Material is not flammable. Use extinguishing media suitable to surrounding materials.

Special Equipment and Precautions: Use water to cool nearby containers and structures. Wear full protective equipment, including suitable respiratory protection.

Specific Hazards: Fire conditions may liberate toxic and noxious fumes.


6. ACCIDENTAL RELEASE MEASURES

Spill Procedures: Prevent spread of spill. Carefully sweep, scoop or vacuum into a suitable disposal container. Take care to avoid creation of dusts. Wear full protective equipment, including respiratory protection. Do not allow release to environment.

7. HANDLING AND STORAGE

Incompatibility Materials: Incompatible with strong bases and strong oxidizers. Alkali metals.

Storage and Handling: Store locked up in a cool, dry, well-ventilated area or cabinet dedicated to the storage of toxic materials. Isolate away from incompatible materials. Keep containers well closed and protect them from physical damage. Light and air sensitive.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Do not breathe dust, fume, gas, mist, vapors, spray.

Do not get in eyes, on skin, or on clothing.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Wear protective gloves, protective clothing, eye protection, face protection.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

OSHA & ACGIH Exposure Limits:

Mercuric chloride

OSHA Ceiling: 1 mg/10m3 (as Hg) ACGIH TWA: 0.025 mg/m3 (as Hg)

Engineering Controls: Use general or local exhaust ventilation to meet TLV and PEL requirements.

Respiratory Protection: Respiratory protection required if airborne concentrations exceed PEL or TLV. Use a NIOSH approved chemical cartridge respirator with a mercury vapor/chlorine gas cartridge and a particulate filter.

Skin/Eye Protective Equipment: Safety goggles, face shield, chemical-resistant gloves and protective clothing appropriate for the risk of exposure. Neoprene gloves are recommended.

Facilities storing or utilizing this material should have readily accessible eyewash stations and safety showers.

Select respirators and other safety equipment in accordance with regulations and based upon the particular conditions of use and risk of exposure. Always use safe chemical-handling and good industrial hygiene practices.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: White crystals or powder

Odor: Odorless

Odor Threshold: Not available

pH: 4.7

Melting/Freezing Point: Not available

Initial Boiling Point and Boiling Range: 277 °C

Flash Point: Not available

Evaporation Rate: Not available

Flammability: Not flammable

Flammable or Explosive Limits (% by volume in air) Upper: Not available Lower: Not available

Vapor Pressure: 1.3 mm Hg @236°C

Vapor Density: Not available

Relative Density: 5.4 Water=1

Solubility: About 7% by weight in water

Partition Coefficient: n-octanol/water Not available

Auto-Ignition Temperature: Not available

 Decomposition Temperature: Not available

Viscosity: Not available

10. STABILITY AND REACTIVITY

Reactivity: No information available

Stability: Stable

Possibility of Hazardous Reactions: Hazardous polymerization will not occur
11. TOXICOLOGICAL INFORMATION

Effects of Over Exposure:

Inhalation: Harmful or fatal if inhaled. Highly toxic by inhalation. Dusts are damaging to the mucous membranes and respiratory system. Symptoms include burning, coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting. May be fatal as a result of spasm, inflammation and edema, chemical pneumonitis and pulmonary edema. May cause motor and behavioral effects (such as muscle incoordination, vertigo, anxiety, depression, muscle in coordination, and emotional instability).

Skin Contact: Contact may cause severe irritation or burns. May be fatal if absorbed through the skin. Material is readily absorbed through the skin.

Eye Contact: Contact may burn or damage the eyes.

Ingestion: Harmful or fatal if swallowed. Highly toxic. May cause irritation or burns to the mouth, throat and mucous membranes. Symptoms include stomach pains, vomiting, bloody diarrhea, foul taste, loosened teeth. May be fatal as a result of spasm, inflammation and edema of the larynx and bronchi.

Chronic Effects: Organ damage. May cause kidney damage, damage to the central nervous system. Chronic exposure may cause stomach pains, vomiting, diarrhea and mercury poisoning whith symptoms of mouth and gum effects and psychic disturbances.

Target Organs: Kidneys, central nervous system, gastrointestinal system.

Additional Effects: No information available

Reproductive Effects: Teratogen, mutagen. Ingestion may terminate pregnancy. May damage fertility. Possible risk of harm to unborn child.

Carcinogenicity: Animal studies indicate this material may be carcinogenic.

Mercuric chloride is listed by the IARC as Group 3, Unclassifiable [as Mercury and inorganic mercury compounds].

12. ECOLOGICAL INFORMATION

Aquatic Toxicity Data:

Mercuric chloride: LC50 Rainbow trout: 0.016 mg/L - 96 h; E

Terrestrial Toxicity Data:

Mercuric chloride: EC50 Ditylum brightwellii: 0.01 mg/L - 5 d

13. DISPOSAL CONSIDERATIONS

Disposal Procedures: Dispose of material and containers in accordance with all local, state and federal regulations.

14. TRANSPORTATION INFORMATION

This product is not a regulated material for domestic ground transporation.

UN Number: UN1624
Proper Shipping Name: Mercuric chloride
Packing Group: II
Hazard Class: 6.1
Environmental hazards: Marine pollutant
Special precautions: No information available
Bulk transport: No information available

15. REGULATORY INFORMATION

Mercuric chloride is listed in the TSCA inventory, in SARA 302, and in SARA 313 (as mercury compound).

16. OTHER INFORMATION

OSHA SDS #: 25898 rev 101 3/27/2015

NE = Not established, NA = Not applicable or Not available
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***** END OF SDS *****