

Safety Data Sheet

according to 29CFR1910/1200 and GHS Rev. 3

Effective date : 01.31.2015

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Mercuric Chloride,ACS

SECTION 1: Identification of the substance/mixture and of the supplier

Product name: Mercuric Chloride,ACS

Manufacturer/Supplier Trade name:

Manufacturer/Supplier Article number: S25423

Recommended uses of the product and restrictions on use:

Manufacturer Details:

AquaPhoenix Scientific, Inc
9 Barnhart Drive, Hanover, PA 17331
(717) 632-1291

Supplier Details:

Fisher Science Education
6771 Silver Crest Road, Nazareth, PA 18064
(724)517-1954

Emergency telephone number:

Fisher Science Education
Emergency Telephone No.: 800-535-5053

SECTION 2: Hazards identification

Classification of the substance or mixture:



Toxic

Acute toxicity (oral, dermal, inhalation), category 1
Acute toxicity (oral, dermal, inhalation), category 2



Environmentally Damaging

Chronic hazards to the aquatic environment, category 2
Acute hazards to the aquatic environment, category 1



Corrosive

Skin corrosion, category 1B
Serious eye damage, category 1



Health hazard

Germ cell mutagenicity, category 2
Reproductive toxicity, category 2
Specific target organ toxicity following repeated exposure, category 1

Acute Oral Tox. 2.

Acute Dermal Tox. 1.

Skin Corr. 1B.

Eye corr. 1.

Muta. 2.

Repr. 2.

STOT RE 1.

Aquatic Acute 1.

Aquatic Chronic 1.

Signal word: Danger

Hazard statements:

Fatal if swallowed.

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Fatal in contact with skin.
Causes severe skin burns and eye damage.
Suspected of causing genetic defects.
Suspected of damaging fertility or the unborn child.
Causes damage to organs through prolonged or repeated exposure.
Very toxic to aquatic life with long lasting effects.

Precautionary statements:

If medical advice is needed, have product container or label at hand.
Keep out of reach of children.
Read label before use.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Do not breathe dust/fume/gas/mist/vapours/spray.
Do not get in eyes, on skin, or on clothing.
Wash skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Avoid release to the environment.
Wear protective gloves/protective clothing/eye protection/face protection.
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
Collect spillage.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED: Remove victim to fresh air and keep at rest in a position 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 or doctor/physician.
Specific measures (see supplemental first aid instructions on this label).
Remove/Take off immediately all contaminated clothing.
Wash contaminated clothing before reuse.
Store locked up.
Dispose of contents and container to an approved waste disposal plant.

Other Non-GHS Classification:

WHMIS



NFPA/HMIS

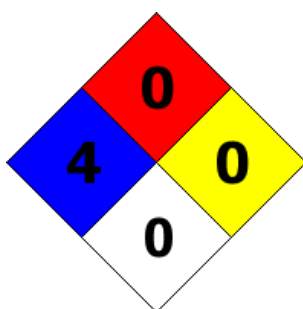
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NFPA SCALE (0-4)

Health	4
Flammability	0
Physical Hazard	0
Personal Protection	X

HMIS RATINGS (0-4)

SECTION 3: Composition/information on ingredients

Ingredients:

CAS 7487-94-7	Mercuric chloride	100 %
Percentages are by weight		

SECTION 4: First aid measures

Description of first aid measures

After inhalation:

Move exposed to fresh air. Give artificial respiration if necessary. If breathing is difficult give oxygen. Loosen clothing and place exposed in a comfortable position. Seek medical assistance if cough or other symptoms appear.

After 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.

After eye contact:

Protect unexposed eye. Flush exposed eye gently using water for 15-20 minutes. Remove contact lenses while rinsing. Get medical attention immediately.

After swallowing:

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical aid immediately and call Poison Control Center.

Most important symptoms and effects, both acute and delayed:

May cause muscle tremor and impaired motor function. May cause cardiac disturbances. Severe over-exposure can produce lung damage, choking, unconsciousness or death. Shortness of breath. Headache. Nausea. Dizziness. Irritation/burns, all routes of exposure. Can cause ulceration of the conjunctiva and cornea. May cause allergic contact dermatitis. Causes gastrointestinal irritation with nausea, vomiting and diarrhea.

Indication of any immediate medical attention and special treatment needed:

If seeking medical attention provide SDS document to physician. Physician should treat symptomatically. The concentration of mercury in whole blood is a reasonable measure of the bodyburden of mercury and thus is used for monitoring purposes. The use of Dimercaprol or BAL (British AntiLewisite), or d-Penicillamine as a chelating agent should be determined by qualified medical personnel. Persons with kidney disease, chronic respiratory disease, liver disease, or skin disease may be at increased risk. Get medical aid immediately and call Poison Control Center.

SECTION 5: Firefighting measures

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Extinguishing media

Suitable extinguishing agents:

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

Unsuitable extinguishing agents: None

Special hazards arising from the substance or mixture:

Irritating and highly toxic gases may be generated by thermal decomposition or combustion. Hydrogen chloride gas, Mercury/mercury oxides.

Advice for firefighters:

Protective equipment:

Wear protective eyewear, gloves, and clothing. Refer to Section 8.

Additional information (precautions):

Avoid inhaling gases, fumes, dust, mist, vapor, and aerosols. Avoid contact with skin, eyes, and clothing. Water runoff can cause environmental damage. Dike and collect water used to fight fire.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Ensure adequate ventilation. Ensure that air-handling systems are operational. Avoid contact with skin, eyes and clothing.

Environmental precautions:

Should not be released into environment. Prevent from reaching drains, sewer, or waterway.

Methods and material for containment and cleaning up:

Wear protective eyewear, gloves, and clothing. Refer to Section 8. Always obey local regulations. If necessary use trained response staff or contractor. Evacuate personnel to safe areas. Containerize for disposal. Refer to Section 13. Keep in suitable closed containers for disposal.

Reference to other sections: None

SECTION 7: Handling and storage

Precautions for safe handling:

Avoid contact with skin, eyes, and clothing. Follow good hygiene procedures when handling chemical materials. Refer to Section 8. Follow proper disposal methods. Refer to Section 13. Do not eat, drink, smoke, or use personal products when handling chemical substances. Do not breathe dust, mist, or vapor. Do not ingest or inhale. Extreme care should always be taken to prevent skin and gastrointestinal absorption because these routes of entry can greatly increase the total body burden.

Conditions for safe storage, including any incompatibilities:

Store in a cool location. Keep away from food and beverages. Protect from freezing and physical damage. Provide ventilation for containers. Keep container tightly sealed. Store away from incompatible materials. Light Sensitive. moisture sensitive.

SECTION 8: Exposure controls/personal protection



Control Parameters:

7487-94-7, Mercuric chloride, ACGIH TLV TWA 0.025 mg/m3.

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Appropriate Engineering controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

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. When necessary use NIOSH approved breathing equipment.

Protection of skin: Select glove material impermeable and resistant to the substance. Select glove material based on rates of diffusion and degradation. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Use proper glove removal technique without touching outer surface. Avoid skin contact with used gloves. Wear protective clothing.

Eye protection: Wear equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses or goggles are appropriate eye protection.

General hygienic measures: Perform routine housekeeping. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes, and clothing. Before rewearing wash contaminated clothing.

SECTION 9: Physical and chemical properties

Appearance (physical state, color):	White Crystals	Explosion limit lower: Explosion limit upper:	Not Determined Not Determined
Odor:	Odorless	Vapor pressure at 20°C:	1.7 hPa (1.3 mmHg) at 236 °C (457 °F)
Odor threshold:	Not Determined	Vapor density:	Not Determined
pH-value:	4.7	Relative density:	5.440 g/cm ³
Melting/Freezing point:	277 °C (531 °F)	Solubilities:	Soluble in Water.
Boiling point/Boiling range:	302 °C (576 °F) at 1,013 hPa (760 mmHg)	Partition coefficient (n-octanol/water):	Not Determined
Flash point (closed cup):	Not Determined	Auto/Self-ignition temperature:	Not Determined
Evaporation rate:	Not Determined	Decomposition temperature:	Not Determined
Flammability (solid, gaseous):	Not Determined	Viscosity:	a. Kinematic: Not Determined b. Dynamic: Not Determined
Density at 20°C:	Not Determined		

SECTION 10: Stability and reactivity

Reactivity:

Nonreactive under normal conditions.

Chemical stability:

Stable under normal conditions.

Possible hazardous reactions:

None under normal processing.

Conditions to avoid:

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Incompatible materials. Light Sensitive. Dust generation. excess heat.

Incompatible materials:

Strong oxidizing agents, strong bases, ammonia, copper, iron, silver salts, potassium, antimony, sodium, lead, hypophosphites, formates, sulfites, phosphates, albumin, gelatin, alkalies, alkaloid salts, lime water, arsenic, bromides, borax, carbonates, reduced iron, infusions of cinchona, columbo, oak bark or senna, tannic acid, metallic halides, vegetable astringents.

Hazardous decomposition products:

Mercury/mercury oxides, chloride fumes.

SECTION 11: Toxicological information

Acute Toxicity:

Oral:

- 7487-94-7 (Mercuric Chloride) LD50 Rat: 41 mg/kg
- 7487-94-7 Extremely hazardous in case of ingestion, of inhalation.
- 7487-94-7 Causes gastrointestinal tract burns
- 7487-94-7 LD50 oral-rat: = 1 mg/kg

Dermal:

- 7487-94-7 Very hazardous in case of skin contact (irritant, permeator), of eye contact (irritant).

Inhalation:

- 7487-94-7 Inhalation of dust will produce irritation to gastro-intestinal or respiratory tract, characterized by burning, sneezing and coughing

Chronic Toxicity:

Oral:

- 7487-94-7 Chronic mercury poisoning involves kidney damage, visual defects, tremor, and severe psychological changes. The brain is the critical organ for chronic mercury poisoning. The half-life of mercury in the brain is 10 years

Corrosion Irritation:

Dermal:

- 7487-94-7 (Mercuric Chloride) Rabbit: Skin Irritation - 24 h

Ocular:

- 7487-94-7 (Mercuric Chloride) Rabbit: Severe eye irritation - 24 h

Sensitization: No additional information.

Numerical Measures: No additional information.

Carcinogenicity:

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

Mutagenicity:

have occurred in experimental animals.

Reproductive Toxicity:

Overexposure may cause reproductive disorder(s) based on tests with laboratory animals. Suspected human reproductive toxicant. May impair fertility or cause harm to an unborn child.

SECTION 12: Ecological information

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Ecotoxicity:

Fish LOEC - Lates calcarifer - 0.113 mg/l - 96.0 h: 7487-94-7 (Mercuric Chloride)

Invertebrates EC50 - Daphnia magna (Water flea) - 0.002 mg/l - 48 h: 7487-94-7 (Mercuric Chloride)

Persistence and degradability:

Compound decomposes to metallic mercury when in contact with organic matter and sunlight.

Bioaccumulative potential:

Bioconcentration factor (BCF): 5,680.

Mobility in soil: No additional information.

Other adverse effects: No additional information.

SECTION 13: Disposal considerations

Waste disposal recommendations:

Contact a licensed professional waste disposal service to dispose of this material. Dispose of empty containers as unused product. Product or containers must not be disposed together with household garbage. It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations. Ensure complete and accurate classification.

SECTION 14: Transport information

US DOT

UN Number:

ADR, ADN, DOT, IMDG, IATA 1624

Limited Quantity Exception: None

Bulk:

RQ (if applicable): None

Proper shipping Name: Mercuric chloride.

Hazard Class: 6

Packing Group: II.

Marine Pollutant (if applicable): No additional information.

Comments: None

Non Bulk:

RQ (if applicable): None

Proper shipping Name: Mercuric chloride.

Hazard Class: 6

Packing Group: II.

Marine Pollutant (if applicable): No additional information.

Comments: None



SECTION 15: Regulatory information

United States (USA)

SARA Section 311/312 (Specific toxic chemical listings):

Reactive, Acute, Chronic

SARA Section 313 (Specific toxic chemical listings):

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7487-94-7 Mercuric chloride.

7487-94-7 Mercury compounds (N458).

RCRA (hazardous waste code):

None of the ingredients are listed.

TSCA (Toxic Substances Control Act):

All ingredients are listed.

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):

7487-94-7 Mercury compounds (N458) No RQ assigned.

Proposition 65 (California):

Chemicals known to cause cancer:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

Chemicals known to cause developmental toxicity:

7487-94-7 Mercuric Chloride.

Canada

Canadian Domestic Substances List (DSL):

All ingredients are listed.

Canadian NPRI Ingredient Disclosure list (limit 0.1%):

7487-94-7 Mercuric Chloride.

Canadian NPRI Ingredient Disclosure list (limit 1%):

None of the ingredients are listed.

SECTION 16: Other information

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations. Note. The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

GHS Full Text Phrases: None

Abbreviations and Acronyms:

Permeator A permeator is a chemical which can pass through the outer protective dermal layers and into the body, and can either expose the body to toxic effects of that chemical OR act as a carrier for other toxic/hazardous chemicals.

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