Mercuric Iodide (Red),ACS

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

Product name: **Mercuric Iodide (Red),ACS**

Manufacturer/Supplier Trade name:

Manufacturer/Supplier Article number: **S25424**

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

Health hazard
Specific target organ toxicity following repeated exposure, category 2

Environmentally Damaging
Acute hazards to the aquatic environment, category 1
Chronic hazards to the aquatic environment, category 1

Acute Tox. Oral 2.
Acute Tox. Inhal 2.
Acute Tox. Dermal 1.
STOT RE 2.
Aquatic Acute Toxicity 1.
Aquatic Chronic Toxicity 1.

Signal word: Danger

Hazard statements:

Fatal if swallowed.
Fatal in contact with skin.
Fatal if inhaled.
May cause damage to organs through prolonged or repeated exposure.
Very toxic to aquatic life.
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.
Wash ... thoroughly after handling.
Do not eat, drink or smoke when using this product.
Do not breathe dust/fume/gas/mist/vapours/spray.
Use only outdoors or in a well-ventilated area.
Wear respiratory protection.
Avoid contact during pregnancy/while nursing.
Wear protective gloves/protective clothing/eye protection/face protection.
Avoid release to the environment.
Use personal protective equipment as required.
IF ON SKIN: Gently wash with plenty of soap and water.
Get Medical advice/attention if you feel unwell.
Collect spillage.
Rinse mouth.
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
Specific treatment is urgent (see ... on this label).
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Remove/Take off immediately all contaminated clothing.
Wash contaminated clothing before reuse.
Store locked up.
Store in a well ventilated place. Keep container tightly closed.
Store in a dry place.
Dispose of contents/container to ....

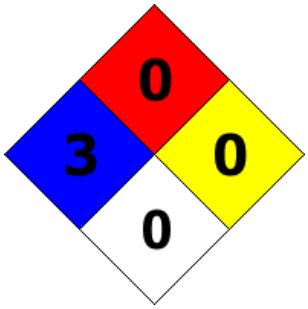
Other Non-GHS Classification:

WHMIS

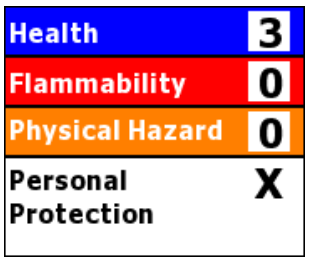
D1A 

D2B 

NFPA/HMIS



NFPA SCALE (0-4)



HMIS RATINGS (0-4)

SECTION 3: Composition/information on ingredients

Ingredients:		
CAS 7774-29-0	Mercuric Iodide	100 %

Percentages are by weight

SECTION 4: First aid measures

Description of first aid measures

After inhalation:

Give artificial respiration, if necessary. (Use protective barrier device.). DO NOT give mouth-to-mouth resuscitation. Provide oxygen if breathing is difficult. Move exposed individual to fresh air. Loosen clothing as necessary and position individual in a comfortable position. Seek immediate medical attention or advice.

After skin contact:

Wash affected area with soap and water. Rinse thoroughly. Seek medical attention if irritation, discomfort or vomiting persists.

After eye contact:

Protect unexposed eye. Rinse/flush exposed eye(s) gently using water for 15-20 minutes. Remove contact lens(es) if able to do so during rinsing. Seek medical attention if irritation persists or if concerned.

After swallowing:

Rinse mouth thoroughly. Do not induce vomiting. Have exposed individual drink sips of water or milk. Seek immediate medical attention or advice.

Most important symptoms and effects, both acute and delayed:

Irritation. Nausea. Headache. Shortness of breath. Severely toxic via all routes of exposure. Tissue destruction possible with direct contact. May cause kidney damage. May cause CNS effects (central nervous system). Adverse reproductive effects. Adverse fetal effects. Death.

Indication of any immediate medical attention and special treatment needed:

The administration of a chelating agent such as Dimercaprol or BAL (British Anti Lewisite) should be determined by a qualified medical professional. If seeking medical attention, provide SDS document to physician. Note to physician: Treat symptomatically.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing agents:

If in laboratory setting, follow laboratory fire suppression procedures. Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition. Water spray (small spills). Dry chemical. Chemical foam. Carbon dioxide.

Unsuitable extinguishing agents: None

Special hazards arising from the substance or mixture:

Contact with tissues may cause damage. Irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Advice for firefighters:

Protective equipment:

Wear protective equipment Use respiratory protective device against the effects of fumes/dust/aerosol/vapor. Keep unprotected persons away. Ensure adequate ventilation. Keep away from ignition sources. Protect from heat.

Additional information (precautions):

Move product containers away from fire or keep cool with water spray as a protective measure, where feasible.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Wear protective equipment. Use respiratory protective device against the effects of fumes/dust/aerosol/vapor. Keep unprotected persons away. Ensure adequate ventilation. Keep away from ignition sources. Protect from heat. Stop the spill, if possible. Contain spilled material by diking or using inert absorbent. Transfer to a disposal or recovery container.

Environmental precautions:

Prevent from reaching drains, sewer or waterway. Collect contaminated soil for characterization per Section 13.

Methods and material for containment and cleaning up:

Clean up spill immediately. If in a laboratory setting, follow Chemical Hygiene Plan procedures. Place into properly labeled containers for recovery or disposal. If necessary, use trained response staff/contractor. Collect solids in powder form using vacuum with (HEPA filter). Conduct confirmatory sampling of air and surfaces following clean up of spilled material. Mercury spills should be cleaned up immediately by use of a special vacuum cleaner. Then the area should be washed with a dilute calcium sulfide solution. Small quantities of mercury can be picked up by mixing with copper metal granules.

Reference to other sections:

CPL 02-02-006, Inorganic Mercury and its Compounds, October 30, 1978 CPL 02-02-051, Inspection Guidelines for Post-Emergency Response Operations Under CFR 1910.120, November 5, 1990 CPL 02-02-073, Inspection Procedures for 29 CFR 1910.120 and 1926.65, Paragraph (q): Emergency Response to Hazardous Substance Releases, August 27, 2007 (see especially, Appendix A).

SECTION 7: Handling and storage

Precautions for safe handling:

Keep from contacting clothing or other combustibles. Avoid contact with the eyes, skin and clothing. Follow good hygiene procedures when handling chemical materials. Do not eat, drink, smoke, or use personal products when handling chemical substances. If in a laboratory setting, follow Chemical Hygiene Plan. Use only in well ventilated areas. Avoid generation of dust or fine particulate. Wear protective equipment to prevent contact with skin, eyes, hair or clothes/shoes.

Conditions for safe storage, including any incompatibilities:

Store in a cool location. Provide ventilation for containers. Avoid storage near extreme heat, ignition sources or open flame. Store away from foodstuffs. Store away from oxidizing agents. Store in cool, dry conditions in well sealed containers. Keep container tightly sealed. Store away from animal feed. Store protected from light.

SECTION 8: Exposure controls/personal protection

Control Parameters:	7774-29-0, Mercuric iodide, ACGIH TLV: 0.025 mg/m3. 7774-29-0, Inorganic mercury, OSHA PEL TWA: 1 mg/10m3 (0.1 mg/m3). 7774-29-0, Mercuric iodide, NIOSH IDLH: 10 mg/cu m (as Hg).
Appropriate Engineering controls:	Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use/handling. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor or dusts (total/respirable) below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

Respiratory protection: Use suitable respiratory protective device when high concentrations are present. Use suitable respiratory protective device when aerosol or mist is formed. For spills, respiratory protection may be advisable. Use adequate general or local ventilation to keep airborne concentrations below OELs.

Protection of skin: The glove material has to be impermeable and resistant to the product/ the substance/ the preparation being used/handled. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Eye protection: Safety glasses with side shields or goggles.

General hygienic measures: The usual precautionary measures are to be adhered to when handling chemicals. Keep away from food, beverages and feed sources. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Do not inhale gases/fumes/dust/mist/vapor/aerosols. Avoid contact with the eyes and skin. All workers directly involved in the plant (mercury) operation should shower thoroughly each day before leaving.

SECTION 9: Physical and chemical properties

Appearance (physical state, color):	Red solid (turns yellow when heated to 130 C, returns to red on cooling)	**Explosion limit lower**: **Explosion limit upper**:	Not determined Not determined
Odor:	None reported	**Vapor pressure at 20°C**:	Not determined
Odor threshold:	Not determined	**Vapor density**:	Not determined
pH-value:	Not Applicable	**Relative density**:	Not determined
Melting/Freezing point:	259 C	**Solubilities**:	Insoluble in water. Molecular Weight: 454.43.
Boiling point/Boiling range:	350 C	**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 applicable b. Dynamic: Not applicable
Density at 20°C:	Not determined **Specific Gravity:**6.28		

SECTION 10: Stability and reactivity

Reactivity:

Stable under normal temperatures and pressures.

Chemical stability:

No decomposition if used and stored according to specifications.

Possible hazardous reactions:

The combination of Chlorine trifluoride and Mercury diiodide (HgI2) results in a reaction with flame. A mixture of sodium and mercuric iodide or a mixture of potassium and mercuric iodide produces strong explosion on impact.

Conditions to avoid:

High temperature. Incompatible materials. Light. Dust generation. Excess heat. Store away from oxidizing agents, strong acids or bases.

Incompatible materials:

Chlorine trifluoride. Potassium. Sodium. Light. Strong oxidizers.

Hazardous decomposition products:

Hydrogen iodide. Mercury. Mercury oxides.

SECTION 11: Toxicological information

Acute Toxicity:

Oral:

18 mg/kg bw LD50 oral-rat: (Mercuric iodide 7774-29-0)

Chronic Toxicity: No additional information.
Corrosion Irritation: No additional information.
Sensitization: No additional information.
Numerical Measures: No additional information.
Carcinogenicity: No additional information.
Mutagenicity: No additional information.
Reproductive Toxicity: No additional information.

SECTION 12: Ecological information

Ecotoxicity:

Algae LC50 Plumaria elegans (red alga, sporiing) 18 hr (7774-29-0): 156 ug/l or 0.156 mg/l

Persistence and degradability:

Readily degradable in the environment.

Bioaccumulative potential: No additional information.
Mobility in soil: No additional information.
Other adverse effects: No additional information.

SECTION 13: Disposal considerations

Waste disposal recommendations:

Product/containers must not be disposed together with household garbage. Do not allow product to reach sewage system or open water. It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). Consult federal state/ provincial and local regulations regarding the proper disposal of waste material that may incorporate some amount of this product. Generators of waste (equal to or greater than 100 kg/mo) containing this contaminant, EPA hazardous waste number D009, must conform with USEPA regulations in storage, transportation, treatment and disposal of waste.

SECTION 14: Transport information

US DOT

UN Number:
ADR, ADN, DOT, IMDG, IATA 1638

Limited Quantity Exception: None

Bulk:
RQ (if applicable): None
Proper shipping Name: Mercury iodide.
Hazard Class: 6
Packing Group: II.
Marine Pollutant (if applicable): No
additional information.
Comments: None

Non Bulk:
RQ (if applicable): None
Proper shipping Name: Mercury iodide.
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):

Acute, Chronic

SARA Section 313 (Specific toxic chemical listings):

None of the ingredients are listed.

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):

None of the ingredients are listed.

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:

7774 - 29 - 0 Mercuric Iodide.

Canada

Canadian Domestic Substances List (DSL):

All ingredients are listed.

Canadian NPRI Ingredient Disclosure list (limit 0.1%):

7774-29-0 Mercuric iodide.

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:

IMDG International Maritime Code for Dangerous Goods.
PNEC Predicted No-Effect Concentration (REACH).
CFR Code of Federal Regulations (USA).
SARA Superfund Amendments and Reauthorization Act (USA).
RCRA Resource Conservation and Recovery Act (USA).
TSCA Toxic Substances Control Act (USA).
NPRI National Pollutant Release Inventory (Canada).
DOT US Department of Transportation.
IATA International Air Transport Association.
GHS Globally Harmonized System of Classification and Labelling of Chemicals.
ACGIH American Conference of Governmental Industrial Hygienists.
CAS Chemical Abstracts Service (division of the American Chemical Society).
NFPA National Fire Protection Association (USA).
HMIS Hazardous Materials Identification System (USA).
WHMIS Workplace Hazardous Materials Information System (Canada).
DNEL Derived No-Effect Level (REACH).

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