



Material Safety Data Sheet

NFPA 	HMS <table border="1" style="margin: auto;"> <tr><td style="background-color: #cccccc;">Hazard</td><td style="text-align: center;">3</td></tr> <tr><td style="background-color: #cccccc;">Persistence</td><td style="text-align: center;">0</td></tr> <tr><td style="background-color: #cccccc;">Reactivity</td><td style="text-align: center;">0</td></tr> </table>	Hazard	3	Persistence	0	Reactivity	0	Personal Protective Equipment  See Section 15.
Hazard	3							
Persistence	0							
Reactivity	0							

Section 1. Chemical Product and Company Identification		Page Number: 1
Common Name/Trade Name	Mercuric iodide	
Manufacturer	ProChem, Inc. 826 Roosevelt Rd Rockford, IL 61109	CAS# 7774-29-0 RTECS OW5250000 TSCA TSCA 8(b) inventory: Mercuric iodide CI# Not applicable.
Commercial Name(s)	Not available.	IN CASE OF EMERGENCY CHEMTREC (24hr) 800-424-9300 CALL 815-398-1788
Synonym	Mercury (II) Iodide	
Chemical Name	Mercuric Iodide	
Chemical Family	Salt.	
Chemical Formula	HgI ₂	
Supplier		

Section 2. Composition and Information on Ingredients					
Name	CAS #	Exposure Limits			% by Weight
		TWA (mg/m ³)	STEL (mg/m ³)	CEIL (mg/m ³)	
1) Mercuric iodide	7774-29-0	0.05		0.15	100
Toxicological Data on Ingredients	Mercuric iodide: ORAL (LD50): Acute: 18 mg/kg [Rat]. 17 mg/kg [Mouse]. DERMAL (LD50): Acute: 75 mg/kg [Rat].				

Section 3. Hazards Identification	
Potential Acute Health Effects	Very hazardous in case of skin contact (irritant, permeator), of eye contact (irritant), of ingestion, of inhalation. Severe over-exposure can result in death. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.
Potential Chronic Health Effects	CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance may be toxic to kidneys, gastrointestinal tract, skin, central nervous system (CNS), teeth. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

Section 4. First Aid Measures

Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.
Skin Contact	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
Serious Skin Contact	Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Serious Inhalation	Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.
Ingestion	If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
Serious Ingestion	Not available.

Section 5. Fire and Explosion Data

Flammability of the Product	Non-flammable.
Auto-Ignition Temperature	Not applicable.
Flash Points	Not applicable.
Flammable Limits	Not applicable.
Products of Combustion	Not available.
Fire Hazards in Presence of Various Substances	Not applicable.
Explosion Hazards in Presence of Various Substances	Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.
Fire Fighting Media and Instructions	Not applicable.
Special Remarks on Fire Hazards	Combination of Chlorine Trifluoride and HgI ₂ results in reaction with flame.
Special Remarks on Explosion Hazards	Sodium + Mercuric Iodide or Potassium + Mercuric Iodide produces strong explosion on impact.

Section 6. Accidental Release Measures

Small Spill	Use appropriate tools to put the spilled solid in a convenient waste disposal container.
Large Spill	Poisonous solid. Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Section 7. Handling and Storage

Precautions	Keep locked up.. Do not ingest. Do not breathe dust. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as alkalis.
Storage	Light Sensitive. Store in light resistant containers. Keep container tightly closed. Keep container in a cool, well-ventilated area. Do not store above 24°C (75.2°F).

Section 8. Exposure Controls/Personal Protection

Engineering Controls	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
Personal Protection	Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
Exposure Limits	TWA: 0.01 (mg/m ³) from OSHA (PEL) [United States] TWA: 0.05 CEIL: 0.15 from ACGIH (TLV) [United States] Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical state and appearance	Solid. (Powdered solid.)	Odor	Odorless.
Molecular Weight	454.4 g/mole	Taste	Practically Tasteless.
pH (1% soln/water)	Not applicable.	Color	Red.
Boiling Point	350°C (662°F)		
Melting Point	259°C (498.2°F)		
Critical Temperature	Not available.		
Specific Gravity	6.25 @ 25 C(Water = 1)		
Vapor Pressure	Not applicable.		
Vapor Density	Not available.		
Volatility	Not available.		
Odor Threshold	Not available.		
Water/Oil Dist. Coeff.	Not available.		
Ionicity (in Water)	Not available.		
Dispersion Properties	See solubility in water, acetone.		
Solubility	Partially soluble in acetone. Very slightly soluble in diethyl ether. Practically insoluble in chloroform, carbon disulfides, water. Very slightly soluble in alcohol, olive oil, and ethyl acetate. Readily soluble in alkali iodides. Partially soluble in castor oil.		

Section 10. Stability and Reactivity Data

Stability	The product is stable.
Instability Temperature	Not available.
Conditions of Instability	Incompatible materials.
Incompatibility with various substances	Reactive with alkalis.
Corrosivity	Non-corrosive in presence of glass.
Special Remarks on Reactivity	Light Sensitive. It becomes yellow at 130 C. Aluminum foil is unsuitable as a packing material in contact with mercury(II)salts in presence of moisture, when vigorous amalgamation ensues. Incompatible with Acetylene, ammonia, chlorine dioxide, azides, calcium(amalgam formation), sodium carbide, lithium, rubidium, copper. Also incompatible with bromides, ammonia, chlorides, cyanides, copper and lead salts, iodoform and hydrogen peroxide.
Special Remarks on Corrosivity	Not available.
Polymerization	Will not occur.

Section 11. Toxicological Information

Routes of Entry	Absorbed through skin. Dermal contact. Inhalation. Ingestion.
Toxicity to Animals	Acute oral toxicity (LD50): 17 mg/kg [Mouse]. Acute dermal toxicity (LD50): 75 mg/kg [Rat].
Chronic Effects on Humans	May cause damage to the following organs: kidneys, gastrointestinal tract, skin, central nervous system (CNS), teeth.
Other Toxic Effects on Humans	Very hazardous in case of skin contact (irritant, permeator), of ingestion, of inhalation.
Special Remarks on Toxicity to Animals	Lowest Published Lethal Dose: LDL [Man] - Route: Oral; Dose: 357 mg/kg
Special Remarks on Chronic Effects on Humans	May cause adverse reproductive effects(male and female fertility and damage to the developing fetus) based on animal data.
Special Remarks on other Toxic Effects on Humans	Acute Potential Health Effects: Skin: Causes irritation. Can be absorbed through skin with symptoms similar to ingestion. Eyes: Causes eye irritation. May cause eye burns and eye damage (ulcerations of the cornea, and conjunctiva). Inhalation: Causes irritation of the respiratory tract with symptoms such as sore throat, coughing, pain, tightness in the chest, breathing difficulties (shortness of breath), headache. Pneumonitis may develop. Can be absorbed through inhalation with symptoms similar to ingestion. Ingestion: Highly toxic. May be fatal if swallowed. Causes gastrointestinal tract irritaiton. Symptoms of acute poisoning may include burning pain in the mouth and pharynx, epigastric pain, abdominal pain, ashen discoloration of the mucous membranes in the mouth and pharynx, excess salivation and thirst, vomiting, diarrhea, hypermotility, bloody feces, metallic taste, considerable tenesmus. May also affect the cardiovascular system (rapid, weak pulse, pallor), respiration (shallow breathing and a sense of constriction), central nervous system/brain (tremors, collapse), and kidneys (renal failure). Delayed death may occur from renal failure. Chronic Potential Health Effects: Chronic exposure through any route may produce central nervous damage (personality and behavior changes, memory loss, muscle tremors), loosening of teeth, digestive disorders, skin rashes, metallic taste, brain and kidney damage. Repeated skin contact may cause the skin to turn gray. May also damage the developing fetus and decrease fertility in males and females.

Section 12. Ecological Information

Ecotoxicity	Ecotoxicity in water (LC50): 0.2 ppm 18 hours [Algae].
BOD5 and COD	Not available.
Products of Biodegradation	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Toxicity of the Products of Biodegradation	The products of degradation are less toxic than the product itself.
Special Remarks on the Products of Biodegradation	Not available.

Section 13. Disposal Considerations

Waste Disposal	Waste must be disposed of in accordance with federal, state and local environmental control regulations.
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Section 14. Transport Information

DOT Classification	CLASS 6.1: Poisonous material.
Identification	: Mercury Iodide UNNA: 1638 PG: II
Special Provisions for Transport	Marine Pollutant
DOT (Pictograms)	

**Section 15. Other Regulatory Information and Pictograms**

Federal and State Regulations	<p>California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Mercuric iodide</p> <p>California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: Mercuric iodide</p> <p>Connecticut carcinogen reporting list.: Mercuric iodide</p> <p>New Jersey: Mercuric iodide</p> <p>TSCA 8(b) inventory: Mercuric iodide</p>		
California Proposition 65 Warnings	California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: Mercuric iodide		
Other Regulations	<p>OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).</p> <p>EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.</p>		
Other Classifications	WHMIS (Canada)	<p>CLASS D-1A: Material causing immediate and serious toxic effects (VERY TOXIC).</p> <p>CLASS D-2B: Material causing other toxic effects (TOXIC).</p>	
	DSCL (EEC)	<p>R24- Toxic in contact with skin.</p> <p>R28- Very toxic if swallowed.</p> <p>R38- Irritating to skin.</p> <p>R41- Risk of serious damage to eyes.</p>	<p>S1/2- Keep locked up and out of the reach of children.</p> <p>S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.</p> <p>S28- After contact with skin, wash immediately with plenty of [***]</p> <p>S36/37- Wear suitable protective clothing and gloves.</p>

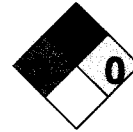
S39- Wear eye/face protection.
S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S46- If swallowed, seek medical advice immediately and show this container or label.

HMIS (U.S.A.)

Health	3
Flammability	0
Reactivity	0
Personal Protection	E

National Fire Protection Association (U.S.A.)

Health



Flammability

Reactivity

Specific hazard

WHMIS (Canada)
(Pictograms)



DSCL (Europe)
(Pictograms)



TDG (Canada)
(Pictograms)



ADR (Europe)
(Pictograms)



Protective Equipment



Gloves.



Lab coat.



Dust respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.



Splash goggles.

Section 16. Other Information

References Not available.

Other Special Considerations Not available.

PREPARATION DATE: NOV 2005

Notice to Reader

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, ProChem Chemicals, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.