Material Safety Data Sheet

Hydrogen Iodide

Section 1. Chemical product and company identification

Product Name : Hydrogen Iodide

Supplier : AIRGAS INC., on behalf of its subsidiaries
259 North Radnor-Chester Road
Suite 100
Radnor, PA 19087-5283
1-610-687-5253

Synonym : anhydrous hydriodic acid; hydriodic acid (dot); hydrogen iodide; hydrogen iodide solution (dot)

Material uses : Other non specified industry: PREPARATION OF IODINE SALTS; ORGANIC PREPARATIONS; ANALYTICAL REAGENT; DISINFECTANT; PHARMACEUTICALS.

MSDS# : 001106

Date of Preparation/Revision : **6/8/2007.**

In case of emergency : 1-866-734-3438

Section 2. Hazards identification

Physical state : Liquid.

Emergency overview : Danger!

CAUSES RESPIRATORY TRACT, EYE AND SKIN BURNS.
HARMFUL IF INHALED.
CAUSES DAMAGE TO THE FOLLOWING ORGANS: MUCOUS MEMBRANES, DIGESTIVE SYSTEM, RESPIRATORY TRACT, SKIN, EYE, LENS OR CORNEA.

Do not get in eyes, on skin or clothing. Do not breathe vapor or mist. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.

Routes of entry : Dermal contact. Eye contact.

Potential acute health effects

Eyes : Corrosive to eyes.

Skin : Corrosive to the skin.

Inhalation : Toxic by inhalation. Corrosive to the respiratory system.

Ingestion : May cause burns to mouth, throat and stomach.

Potential chronic health effects : **CARCINOGENIC EFFECTS** Not available.
MUTAGENIC EFFECTS Not available.
TERATOGENIC EFFECTS Not available.

Medical conditions aggravated by overexposure : Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection.

See toxicological Information (section 11)

Section 3. Composition, Information on Ingredients

United States

		Exposure limits
hydriodic acid	10034-85-2	100

Section 4. First aid measures

Eye contact : 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. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

Inhalation : If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Hydrogen Iodide

Ingestion : Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Section 5. Fire fighting measures

Flammability of the product : Non-flammable.

Products of combustion : These products are halogenated compounds.

Fire fighting media and instructions : Use an extinguishing agent suitable for surrounding fires.

No specific hazard.

Special protective equipment for fire-fighters : Fire fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full facepiece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions : Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment (Section 8).

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Methods for cleaning up : If emergency personnel are unavailable, contain spilled material. For small spills add absorbent (soil may be used in the absence of other suitable materials) scoop up material and place in a sealed, liquid-proof container for disposal. For large spills dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal.

Section 7. Handling and storage

Handling : Do not get in eyes, on skin or on clothing. Keep container closed. Use only with adequate ventilation. Do not breathe vapor or mist. Wash thoroughly after handling.

Storage : Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 8. Exposure Controls, Personal Protection

Engineering controls : Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal protection

Eyes : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.

Skin : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Hands : Chemical-resistant, impervious gloves or gauntlets complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Personal protection in case of a large spill : Splash goggles. Full suit. Vapor 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.

Product name	Exposure limits
United States	
hydriodic acid	

Section 9. Physical and chemical properties

Physical state : Liquid.

Color : Yellow or brown.

Odor : Acrid.

Molecular weight : 127.9 g/mole

Molecular formula : HI

Boiling/condensation point : 126.85°C (260.3°F)

Specific gravity : 4.5 (Water = 1)

Section 10. Stability and reactivity

Stability and reactivity : The product is stable.

Incompatibility with various substances : Highly reactive with metals, moisture.

Hazardous decomposition products : These products are halogenated compounds.

Section 11. Toxicological information

Ingredient name	Test	Result	Route	Species
hydriodic acid	LC50	2860 ppm (1 hour(s))	Inhalation	Rat

Chronic effects on humans : Causes damage to the following organs: mucous membranes, digestive system, upper respiratory tract, skin, eye, lens or cornea.

Other toxic effects on humans : Hazardous in case of skin contact (corrosive), of eye contact (corrosive), of inhalation (lung corrosive).

Specific effects

Carcinogenic effects : No known significant effects or critical hazards.

Mutagenic effects : No known significant effects or critical hazards.

Reproduction toxicity : No known significant effects or critical hazards.

Section 12. Ecological information

Products of degradation : These products are halogenated compounds.

Toxicity of the products of biodegradation : The products of degradation are less toxic than the product itself.

Section 13. Disposal considerations

Waste disposal : The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Consult your local or regional authorities.

Section 14. Transport information

Regulatory information	UN number	Proper shipping name	Class	Packing group	Label	Additional information
DOT Classification	UN2197	Hydrogen Iodide, anhydrous	8	II	 	**Limited quantity** Yes. **Packaging instruction Passenger**

Hydrogen Iodide						
						Aircraft Quantity limitation: 1 L **Cargo Aircraft** Quantity limitation: 30 L **Special provisions** A3, A6, B2, IB2, N41, T7, TP2
TDG Classification	UN2197	Hydrogen Iodide, anhydrous	8	III		**Explosive Limit and Limited Quantity Index** 1 **Passenger Carrying Road or Rail Index** 1
Mexico Classification	UN2197	Hydrogen Iodide, anhydrous	8	II		**Limited quantity** Yes. **Packaging instruction** **Passenger Aircraft** Quantity limitation: 1 L **Cargo Aircraft** Quantity limitation: 30 L **Special provisions** A3, A6, B2, IB2, N41, T7, TP2

Section 15. Regulatory information

United States

HCS Classification : Toxic material
Corrosive material
Target organ effects

U.S. Federal regulations : TSCA 8(b) inventory: hydriodic acid

SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: hydriodic acid
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: hydriodic acid: Immediate (Acute) Health Hazard

Clean Water Act (CWA) 307: No products were found.

Clean Water Act (CWA) 311: No products were found.

Clean air act (CAA) 112 accidental release prevention: No products were found.

Clean air act (CAA) 112 regulated flammable substances: No products were found.

Clean air act (CAA) 112 regulated toxic substances: No products were found.

State regulations : Pennsylvania RTK: hydriodic acid: (generic environmental hazard)
Massachusetts RTK: hydriodic acid
New Jersey: hydriodic acid

Canada

WHMIS (Canada) : Class E: Corrosive liquid.

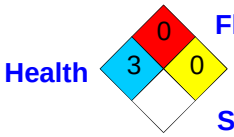
CEPA DSL: hydriodic acid

Section 16. Other information

Label Requirements : CAUSES RESPIRATORY TRACT, EYE AND SKIN BURNS.
HARMFUL IF INHALED.
CAUSES DAMAGE TO THE FOLLOWING ORGANS: MUCOUS MEMBRANES, DIGESTIVE SYSTEM, RESPIRATORY TRACT, SKIN, EYE, LENS OR CORNEA.

Hazardous Material Information System (U.S.A.) :

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



Notice to reader

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Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.