

1. Chemical Product Identification

GHS Product Identifier: 132.44 Hydriodic Acid, Stabilized
Manufacturer/Supplier: Deepwater Chemicals, Inc. 1210 Airpark Road, Woodward, Oklahoma 73801; Tel: 800-854-4064, Website: www.deepwaterchemicals.com

Recommended Use: Hydriodic Acid is used in inorganic and organic synthesis and as a reducing agent. Used as a catalyst in Acetic Acid manufacturing. Used as a disinfectant in teat dips for Mastitis prevention in dairy cattle. Not permitted in the manufacturing of clandestine chemicals.

(24) Hour Emergency Contact: Chemtrec 800-424-9300

Technical Service: 580-334-3539



2. Hazard Identification

Danger! Causes severe skin burns and eye damage. May cause an allergic skin reaction. May be harmful if swallowed in contact with skin or if inhaled. Do not breathe dust/fume/gas/mist/vapors/spray. Wash hands thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

3. Composition/Information on Ingredients

Chemical Identity	Molecular Weight	Chemical Formula	CAS#	EINECS#	Percent%
Hydrogen Iodide	127.91	HI	10034-85-2	233-109-9	55-59
Water	18.01	H ₂ O	7732-18-5	231-791-2	40-45
Phosphinic Acid	66.00	H ₃ PO ₂	6303-21-5	228-601-5	.75-1.5

4. First-Aid Measures

Eye Contact: Liquid and vapors are extremely irritating and may cause damage to the eyes. Contact may cause severe burns and permanent eye damage. IF IN EYES:

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin Contact: . Liquids and vapors cause severe skin burns or irritation. Hydriodic acid will turn the skin a dark yellow and may cause allergic reaction. IF ON SKIN:

Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Hydriodic acid stains on the skin can be removed by immediately washing skin with 5% sodium thiosulfate solution. If skin irritation occurs: Get medical advice/attention.

Ingestion: Causes burning in mouth and esophagus. Severe corrosive gastroenteritis may occur evidenced by vomiting, abdominal pain and diarrhea. IF SWALLOWED:

Rinse mouth, Do NOT induce vomiting. Get medical advice/attention if you feel unwell. If the person is not unconscious, you can administer a mild base, such as milk, to relieve irritation or burning of the mouth and esophagus.

Inhalation: Avoid breathing dust/fume/gas/mist/vapors/spray. May cause throat and respiratory tract irritation. IF INHALED:

Rinse mouth, Do NOT induce vomiting. Get medical advice/attention if you feel unwell. If the person is not unconscious, you can administer a mild base, such as milk, to relieve irritation or burning of the mouth and esophagus.

5. Fire Fighting Measures

Flash Point: No data

LEL % : No data

UEL % : No data

Method: N/A

Auto-ignition: N/A

FIRE AND EXPLOSION HAZARDS : Not combustible, but substance is a strong oxidizer and its heat of reaction with reducing agents or combustibles may cause ignition.

EXTINGUISHING MEDIA: Use dry powder or carbon dioxide extinguishers. Water spray may be used to keep fire exposed containers cool. Keep water use to a minimum.

FIRE FIGHTING INSTRUCTIONS:

Small Fires: Dry chemical, CO₂ or alcohol-resistant foam.

Large Fires: Dry chemical, CO₂ or alcohol-resistant foam. Move containers from area if you can without risk. Dike fire control water for later disposal. Do not scatter material.

Protective Clothing: Wear chemical protective clothing, minimum, Level B Suit, with positive self-contained breathing apparatus (SCBA). Structural firefighter's protective clothing provides limited protection in fire situations.

6. Accidental Release Measures

Evacuation: Notify safety personnel of Hydriodic Acid spills or leaks. Keep unnecessary and unprotected personnel from entering. Wear proper protective equipment. As an immediate precautionary measure, isolate spill or leak area in all directions for at least 50 meters. Stay upwind. Refer to the Emergency Response Guidebook, ERG# 154, for additional information.

Containment: Eliminate all ignition sources. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Stop leak if you can do without risk. Prevent entry into waterways, sewers, basements or confined areas. Cover the spill area with an excess of reducing agent (sodium thiosulfate, bisulfate) and then neutralize with caustic soda or potash. Collect slurry into approved containers.

Reporting: In the event of a Hazardous Materials Incident during transportation, the regulations in 49CFR 171.5 and 171.16 are to be followed. Under 40CFR 302.6 (CERCLA), any release of a substance in a quantity equal to or greater than its threshold amount to soil, water or air, must be reported to the US Coast Guard National Response Center at 800-424-8801, as soon as that person has knowledge of the release. Hydriodic Acid does not have a Reportable Quantity (RQ).

7. Handling and Storage

Storage Conditions: Store in a cool, dry, well-ventilated area away from incompatible substances. Keep containers tightly closed and away from sources of heat or ignition. Hydriodic Acid is a List I chemical regulated by the Department of Justice, Drug Enforcement Administration. Keep material and containers under secure conditions to prevent diversion. Containers of this material may be hazardous when empty since they contain product residue.

8. Exposure Controls/Personal Protection

<u>Substance (CAS#)</u>	<u>ACGIH- TLV</u>	<u>ACGIH- STEL</u>	<u>OSHA- PEL</u>	<u>OSHA- STEL</u>
Hydrogen Iodide (10034-85-2)	Not Established	Not Established	Not Established	Not Established
Phosphinic Acid (6303-21-5)	Not Established	Not Established	Not Established	Not Established

Engineering Controls/Ventilation: Use appropriate engineering controls to reduce air contamination to approved or permissible standards. Where such systems are not effective, wear suitable personal protective equipment which performs satisfactorily and meets local/national standards.

Eye/Face Protection: Wear appropriate protective eyeglasses or chemical safety goggles as described in OSHA's 29 CFR 1910.133 Eye and Face Protection Standard.

Skin Protection: Proper protective gloves should be worn when handling hazardous or toxic materials. The degradation and permeation characteristics of the glove material selected must be appropriate for protection from the material being handled. Glove selection guides should be consulted. Rubber, Nitrile, PVC coated, Neoprene, Vinyl or Butyl gloves offer proper protection. It is recommended to wear full skin, including PVC sleeves and full apron.

Respiratory Protection: Follow the OSHA 's 29 CFR 1910.134 Respirator Protection Program regulations. Always use a NIOSH approved respirator when necessary with the proper gas/vapor cartridge. Observe the manufacturer's cartridge service-life and the recommended change schedule. If the exposure limit is exceeded, wear a supplied air, full-facepiece respirator, airlined hood or full-facepiece SCBA. This substance has unknown warning properties.

9. Physical and Chemical Properties

Appearance:	Clear, pale yellow to yellow liquid
Odor:	Pungent, Acrid odor
Physical State:	Dissolved gas in solution
pH:	Acidic in solution; <1
Boiling Point:	127 ° C
Melting Point:	Not Applicable
Freezing Point:	-50 ° C
Vapor Pressure:	No information found
Vapor Density:	4.5 (Air=1)
Specific Gravity:	1.701 g/ml @ 25 ° C
Evaporation Rate:	No information found
Solubility in Water:	Very soluble in water, 550 –570 g/L
Percent Solids by Weight:	Not Applicable
Percent Volatile:	No information found
Volatile Organic Compounds	Not Applicable
Molecular Weight	127.91

Note: The physical data presented above are typical values and should not be construed as a specification.

10. Stability and Reactivity

Stability: Stable under ambient temperatures and pressure, but will fume Hydrogen Iodide gas at higher concentrations.

Incompatible Materials: Alkaline metals, oxidizing materials, peroxides. Ignition on contact with Fluorine, Nitric acid, Perchloric acid. Containers may explode or rupture if exposed to heat. Thermal decomposition by-products include iodine and phosphorus oxides.

Hazardous Polymerization: Will not occur.

11. Toxicological Information

Substance (CAS No.)	Hydriodic Acid	10034-85-2
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Acute Testing	Route of Entry	Value/Critical Effects
No Information found	No Information found	No Information found

Substance (CAS No.)	Phosphinic Acid	6303-21-5
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Acute Testing	Route of Entry	Value/Critical Effects
No Information found	No Information found	No Information found

The components of this material have been reviewed in various sources and no selected endpoints have been identified. RTECS Acute toxicity and irritation studies have been selected but RTECS published no data as of the date on this document.

12. Ecological Information

Terrestrial Fate: No data has been published on the components of this substance.

Aquatic Fate: No data has been published on the components of this substance

13. Disposal Considerations

Dispose of in a manner consistent with federal, state and local regulations.

RCRA- This material does not meet the criteria for RCRA F, P or U-series waste codes. Although not a listed RCRA hazardous waste, this material may exhibit one or more characteristics of a hazardous waste and require appropriate analysis to determine specific disposal requirements.

14. Transport Information

SHIPPING CRITERIA	US DOT	IATA and IMDG
Proper Shipping Name	Hydriodic Acid Solution	Hydriodic Acid Solution
Hazard Class	Class 8	Class 8
Identification Number	UN 1787	UN 1787
Packing Group	PG II	PG II
Shipping Label	Corrosive	Corrosive

Additional Marking Requirement	Consult the 49 CFR §172 for special provisions and markings	Consult the current DGR Regulations, Section 7
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15. Regulatory Information

OSHA: This material is not considered a Highly Hazardous Chemical under 29CFR 1910.119 Process Safety Management.

EPA: Clean Air Act- This material is not listed as a Hazardous Air Pollutant (HAP). This material does not contain any Class1 or 2 Ozone Depletors.
Clean Water Act- This material is not listed as a Hazardous Substance under RMP, Priority Pollutant or as a Toxic Pollutant.
TSCA- CAS# 10034-85-2 is listed on the Public Inventory.
SARA Title III-
Section 302: RQ= Not Applicable
Section 302: This product does not have a Threshold Planning Quantity (TPQ)
Section 313: This material subject to reporting under 40 CFR Part 372, Toxic Release Inventory.

Individual Country Lists: This material can be found on the following country listings; Australia (AICS), Canada (WHMIS), EU (REACH), Japan (ENCS), Korea (ECL), Philippines(PICCS), New Zealand (NZIoC), SWISS (Giftliste 1), Taiwan (BSMI).

European Priority Lists Information (Council Regulation (EEC) 793/93):

This chemical substance is not listed in a priority list.

Classification and Labeling Information:

This chemical substance is not classified in the Annex I of Directive 67/548/EEC.

IUCLID & OECD Chemical Data Sheets and Export Files Information:

Not available for this substance

European Risk Assessment Information (Council Regulation (EEC) 793/93):

Not available for this substance

EU: EINECS#: 233-109-9

Hazard Symbol



Corrosive (C)

Risk Description

R35 Causes severe burns
R34 Causes burns
R36/37/38 Irritating to eyes, respiratory system and skin.

Safety Description

S1/2 Keep locked-up and out of the reach of children
S9 Keep container in well-ventilated place.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

16. Other Information

Users Responsibility: A bulletin such as this cannot be expected to cover all possible individual situations. The user has the responsibility to provide a safe workplace. All aspects of an individual operation should be examined to determine if and where, precautions are required. All health hazard and safety information herein should be passed on to your customers and employees.

Disclaimer of Liability: The information contained herein is accurate to the best of our knowledge and belief. 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 use of this material. All chemicals may present unknown health hazards. We cannot guarantee that the hazards described herein are the only hazards which exist. Final determination of suitability of the chemical is the sole responsibility of the user. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or any other nature are made hereunder. It is the responsibility of the user to comply with all applicable federal, state and local laws and regulations.

MSDS Code: 132.44 GHS

Effective : 08/06/2012

Supercedes: 08/10/2000

For MSDS, Technical or Regulatory Information contact:

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