



MATERIAL SAFETY DATA SHEET

Section 1 - Chemical Product and Company Identification

MSDS Name: Hydriodic acid >47% (covers range of products)
Catalog Numbers: AC198360000, AC198360500, AC198362500, AC198370000, AC198370500, AC198372500, AC198372500, AC411841000, AC411845000, AC411850000, AC411850050, AC411851000, AC411851000, AC411855000, A134-500, A135-500, A145-100
Synonyms: Hydrogen iodide.
Company Identification: Fisher Scientific
One Reagent Lane
Fair Lawn, NJ 07410
For information in the US, call: 201-796-7100
Emergency Number US: 201-796-7100
CHEMTREC Phone Number, US: 800-424-9300

Section 2 - Composition, Information on Ingredients

CAS#: 7732-18-5
Chemical Name: Water
%: < 53
EINECS#: 231-791-2
Hazard Symbols:
Risk Phrases:

CAS#: 10034-85-2
Chemical Name: Hydriodic acid
%: > 47
EINECS#: 233-109-9
Hazard Symbols:
Risk Phrases:

Text for R-phrases: see Section 16

Hazard Symbols: C



Risk Phrases: 35

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Danger! Light sensitive. Air sensitive. Causes eye and skin burns. Causes digestive and respiratory tract burns. Target Organs: Eyes, skin, mucous membranes.

Potential Health Effects

Eye: Causes eye burns.
Skin: Causes skin burns.
Ingestion: Causes gastrointestinal tract burns.

Inhalation: May cause irritation of the respiratory tract with burning pain in the nose and throat, coughing, wheezing, shortness of breath and pulmonary edema. Causes chemical burns to the respiratory tract. Inhalation may be fatal as a result of spasm, inflammation, edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema.

Chronic: Chronic ingestion of iodides during pregnancy has resulted in fetal death, severe goiter, and cretinoid appearance of the newborn. Prolonged exposure to iodides may produce iodism in sensitive individuals. Symptoms could include skin rash, running nose and headache.

Section 4 - First Aid Measures

Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid immediately.

Skin: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately. Wash clothing before reuse.

Ingestion: If swallowed, do NOT induce vomiting. Get medical aid immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.

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

Notes to Physician:

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Use water spray to keep fire-exposed containers cool. May react with metals and lead to the formation of flammable hydrogen gas. Approach fire from upwind to avoid hazardous vapors and toxic decomposition products.

Extinguishing Media: Use extinguishing media most appropriate for the surrounding fire.

Autoignition: Not applicable.

Temperature:

Flash Point: Not applicable.

Explosion: Not available

Limits: Lower:

Explosion: Not available

Limits: Upper:

NFPA Rating: health: 3; flammability: 0; instability: 0;

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Do not ingest or inhale. Use with adequate ventilation. Store protected from light. Discard contaminated shoes.

Storage: Keep container closed when not in use. Store in a cool, dry, well-ventilated area away from incompatible substances. Corrosives area. Keep refrigerated. (Store below 4°C/39°F.) Store protected from light. Store away from alkalies. Separate from oxidizing materials.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Water listed	none listed	none listed	none
Hydriodic acid listed	none listed	none listed	none

OSHA Vacated PELs: Water: None listed Hydriodic acid: None listed

Personal Protective Equipment

Eyes: Wear chemical splash goggles and face shield.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Liquid

Color: colorless to yellow brown

Odor: sharp odor, unpleasant odor

pH: ~1.0

Vapor Pressure: Not available

Vapor Density: 4.41

Evaporation Rate: Not available

Viscosity: Not available

Boiling Point: 127 deg C @ 760 mmHg (260.60°F)

Freezing/Melting Point: -51 deg C (-59.80°F)

Decomposition Temperature: Not available

Solubility in water: soluble

Specific Gravity/Density: 1.7010g/cm3

Molecular Formula: HI

Molecular Weight: 127.91

Section 10 - Stability and Reactivity

Chemical Stability: Stable. May discolor on exposure to light.

Conditions to Avoid: Light, exposure to air, excess heat.

Incompatibilities with Other Materials Explodes on contact with ethyl hydroperoxide, ignites on contact with with magnesium, perchloric acid, potassium + heat, potassium chlorate + heat, and oxidants, violent reaction with HClO4 + Mg, O3, metals, potentially violent reaction with phosphorous.

Hazardous Decomposition Products Hydrogen iodide, iodine.

**Hazardous
Polymerization**

Will not occur.

Section 11 - Toxicological Information

RTECS#: CAS# 7732-18-5: ZC0110000
CAS# 10034-85-2: None listed

LD50/LC50: RTECS:
CAS# 7732-18-5: Oral, rat: LD50 = >90 mL/kg;
.
RTECS:
CAS# 10034-85-2:

Carcinogenicity: Water - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Hydriodic acid - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Other: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Not available

Section 13 - Disposal Considerations

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

Section 14 - Transport Information

US DOT
Shipping Name: HYDRIODIC ACID
Hazard Class: 8
UN Number: UN1787
Packing Group: II
Canada TDG
Shipping Name: Not available
Hazard Class:
UN Number:
Packing Group:

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: C

Risk Phrases:

R 35 Causes severe burns.

Safety Phrases:

S 9 Keep container in a well-ventilated place.

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)

CAS# 7732-18-5: Not available

CAS# 10034-85-2: 1

Canada

CAS# 7732-18-5 is listed on Canada's DSL List

CAS# 10034-85-2 is listed on Canada's DSL List

Canadian WHMIS Classifications: E

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

CAS# 7732-18-5 is not listed on Canada's Ingredient Disclosure List.

CAS# 10034-85-2 is listed on Canada's Ingredient Disclosure List

US Federal

TSCA

CAS# 7732-18-5 is listed on the TSCA Inventory.

CAS# 10034-85-2 is listed on the TSCA Inventory.

Section 16 - Other Information

MSDS Creation Date: 4/07/1999

Revision #5 Date: 6/19/2006

Revisions were made in Sections: 9

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.