MATERIAL SAFETY DATA SHEET

HYDROIODIC ACID

1.1 Product Identifiers:

Product Name : Hydroiodic Acid

CAS No : 10034-85-2

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Supplier: Infinium Pharmachem Pvt. Ltd.(AN ISO 9001:2008 CERTIFIED CO.)
38, G.I.D.C, Sojitra
Dist: Anand
Gujarat, India

Tel : 0091-2697-234987
Fax : 0091-2697-234987
Email : info@infiniumpharmachem.com

Synonyms: Hydrogen Iodide; Hydrogeniodid; Ioduro de hidrogeno; iodure d’hydrique; Hydroiodic Acid.

CAS No. : 10034-85-2
Molecular Weight : 127.91
Chemical Formula : HI
3.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008
Skin corrosion (Category 1B), H314
For the full text of the H-Statements mentioned in this Section, see Section 15.

Classification according to EU Directives 67/548/EEC or 1999/45/EC
C  Corrosive  R34
For the full text of the R-phrases mentioned in this Section, see Section 15.

3.2 Label elements

Labeling according Regulation (EC) No 1272/2008
Pictogram
Signal word  Danger

Hazard statement(s)
H314  Causes severe skin burns and eye damage.

Precautionary statement(s)
P280  Wear protective gloves/ protective clothing/ eye protection/face protection.

P305 + P351 + P338  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310  Immediately call a POISON CENTER or doctor/ physician.

Supplemental Hazard Statements  none

Hazard symbol(s)  C  Corrosive

R-phrase(s)
R34  Causes burns.
S-phrase(s)
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

3.3 Other hazards - none

4.1 Description of first aid measures

Eye Contact
Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. 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. Clean shoes thoroughly before reuse. Get medical attention immediately.

Inhalation
Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Ingestion
Wash out mouth with water. 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.

4.2 Most Important symptoms & efforts, both acute and delayed

The most important known symptoms and effects are described in the labeling (see section no 3.3) or section 11.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

5.1 Extinguishing Media

Suitable extinguishing media : carbon dioxide, regular dry chemical
Large fires : Use regular foam or flood with fine water spray.
5.2 Special hazards arising from the substance or mixture

**Hazardous combustion products**: Under fire conditions, hazardous fumes will be present.

**Thermal decomposition generates**: Corrosive vapours.

5.3 Advice for fire-fighters

**Protection against fire**: Do not get water inside container. Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Stay away from the ends of tanks does not enter fire area without. Proper protective equipment, including respirator protection.

**Special procedures**: Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.

Evacuate personnel to safe areas.

For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.
7.1 Precautions for safe handling

Avoid inhalation of vapour or mist.
For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place.
Keep container tightly closed in a dry and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Recommended storage temperature: 2 -8 °C
Air and light sensitive.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8.1 Control parameters

Components with workplace control Parameters.

8.2 EXPOSURE LIMITS:

HYDRIODIC ACID:

- No occupational exposure limits established.

VENTILATION:

- Provide local exhaust ventilation system.
- Ensure compliance with applicable exposure limits.

EYE PROTECTION:

- Wear splash resistant safety goggles with a face shield. Provide an emergency eye wash fountain and quick drench shower in the immediate work area.

CLOTHING:

- Wear appropriate chemical resistant clothing.

GLOVES:

- Wear appropriate chemical resistant gloves.
RESPIRATOR:
- Under conditions of frequent use or heavy exposure, respiratory protection may be needed.
- Respiratory protection is ranked in order from minimum to maximum. Consider warning properties before use.
- Any chemical cartridge respirator with acid gas cartridge(s).
- Any chemical cartridge respirator with a full face piece and acid gas cartridge(s).
- Any air-purifying respirator with a full face piece and an acid gas canister.

For Unknown Concentrations or Immediately Dangerous to Life or Health -
- Any supplied-air respirator with a full face piece that is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode.

9.1 Information on Basic physical & chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYSICAL STATE</td>
<td>gas</td>
</tr>
<tr>
<td>COLOR</td>
<td>colorless</td>
</tr>
<tr>
<td>ODOR</td>
<td>pungent odor</td>
</tr>
<tr>
<td>MOLECULAR WEIGHT</td>
<td>127.91</td>
</tr>
<tr>
<td>MOLECULAR FORMULA</td>
<td>H-I</td>
</tr>
<tr>
<td>BOILING POINT</td>
<td>-31 F (-35 C)</td>
</tr>
<tr>
<td>FREEZING POINT</td>
<td>-58 F (-50 C)</td>
</tr>
<tr>
<td>VAPOR PRESSURE</td>
<td>Not available</td>
</tr>
<tr>
<td>VAPOR DENSITY (air=1)</td>
<td>4.5</td>
</tr>
<tr>
<td>SPECIFIC GRAVITY (water=1)</td>
<td>2.85 @ -47 C</td>
</tr>
<tr>
<td>DENSITY</td>
<td>6.6 g/L</td>
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<tr>
<td>WATER SOLUBILITY</td>
<td>70% @ 10 C</td>
</tr>
<tr>
<td>pH</td>
<td>acidic in solution</td>
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<tr>
<td>VOLATILITY</td>
<td>Not applicable</td>
</tr>
<tr>
<td>ODOR THRESHOLD</td>
<td>Not available</td>
</tr>
<tr>
<td>EVAPORATION RATE</td>
<td>Not applicable</td>
</tr>
<tr>
<td>COEFFICIENT OF WATER/OIL DISTRIBUTION</td>
<td>Not applicable</td>
</tr>
<tr>
<td>SOLVENT SOLUBILITY</td>
<td>Soluble in alcohol</td>
</tr>
</tbody>
</table>

9.2 Other safety Information

No data available
10.1 REACTIVITY:
- Stable at normal temperatures and pressure.

10.2 CONDITIONS TO AVOID:
- Minimize contact with material. Avoid inhalation of material or combustion by-products. Containers may rupture or explode if exposed to heat.

10.3 INCOMPATIBILITIES:
- metals, oxidizing materials, peroxides, halogens, combustible materials

10.4 HAZARDOUS DECOMPOSITION:
- Thermal decomposition products: iodinated compounds

10.5 POLYMERIZATION:
- Will not polymerize.

11.1 Information on toxicological effects

Toxicity information: The product has been not fully tested. The calculated risk has been done under the requirements of the EU regulations.

Acute toxicity
- Inhalation: Toxic if inhaled. Harmful if inhaled.
- Dermal: Based on available data, the classification criteria are not met.
- Ingestion: Based on available data, the classification criteria are not met.
- Corrosion: Causes severe skin burns and eye damage.
- Irritation: Based on available data, the classification criteria are not met.
- Sensitization: Based on available data, the classification criteria are not met.
- Mutagenicity: Based on available data, the classification criteria are not met.
- Carcinogenicity: Based on available data, the classification criteria are not met.
- Toxic for reproduction: Based on available data, the classification criteria are not met.
- STOT-single exposure: Based on available data, the classification criteria are not met.
- STOT-repeated exposure: Based on available data, the classification criteria are not met.
- Aspiration hazard: Based on available data, the classification criteria are not met.

12.1 Toxicity

Toxicity to fish: LC50-Gambusia affinis (Mosquito fish)-282 mg/l-96 h (Hydrochloric acid)
12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available (Hydrochloric acid)

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

No data available

13.1 WASTE DISPOSAL METHOD:

Ensure that collection, transport, treatment, and disposal of waste product, containers and reinstate comply with all applicable laws and regulations. It is the responsibility of the product user or owner to determine at the time of disposal, whether the product is regulated as a hazardous waste.

14.1 Un proper shipping name & no.

PROPER SHIPPING NAME : Hydriodic Acid
DOT HAZARD CLASS / Pack Group : 8/PGII
REFERENCE : 49 CFR
UN / NA IDENTIFICATION NUMBER : UN-1787
LABEL : Corrosive

14.2 HAZARD SYMBOLS:
IATA HAZARD CLASS / Pack Group: Class 8/PG II
IMDG HAZARD CLASS: Class 8
RID/ADR Dangerous Goods Code: 60
UN TDG Class / Pack Group: UN1787, 8, PGII
Hazard Identification Number (HIN): 80

TSCA-listed, EINECS-listed (233-109-9), RCRA code D002

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

No data available

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

MSDS Creation Date: 01-01-2015
Revision #1 Date: 31-12-2017

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