



### SAFETY DATA SHEET

#### 1. PRODUCT AND COMPANY IDENTIFICATION


1.1 Product identifiers	
i	Product Name : <b>Hydroiodic Acid</b>
ii	Chemical Formula : HI
iii	CAS No. : 10034-85-2
iv	EC No. : 233-109-9
v	HSN Code : 28111990
vi	Hazardous : Yes
vii	Content : 57.0% to 57.5%
viii	Appearance : Colourless to yellow liquid
1.2 Relevant identified uses of the substance	
i	Identified uses : Laboratory chemicals, Industrial & for professional use only.
1.3 Details of Manufacturer	
i	Company : <b>Samrat Pharmachem Limited</b>
ii	Address : Plot No. A2/3445, GIDC, Phase 4, Ankleshwar – 393002, Gujarat, India.
iii	Phone : +91-7045456789 / 7046456789
iv	Email : <a href="mailto:contact@samratpharmachem.in">contact@samratpharmachem.in</a>
v	Webpage : <a href="http://www.samratpharmachem.com">www.samratpharmachem.com</a>
1.4 Emergency Number	
	Emergency Phone : +91-7045456789 / 7046456789



#### 2. HAZARD IDENTIFICATION

2.1 Classification of substance			
i	H280	Corrosive to metals	: May be corrosive to metals (Category 1)
ii	H314	Skin corrosion/irritation	: Causes severe skin burns and eye damage (Category 1A)
iii	H335	Specific Target Organ Toxicity (Respiratory)	: May cause respiratory irritation; Single Exposure (Category 3)
iv	H411	Chronic Aquatic Hazard	: Toxic to aquatic life with long lasting effects (Category 2)



2.2 GHS Label elements, including precautionary statements	
i	Pictogram : 
ii	Signal word : Danger
iii	Hazard Statement(s)
	H290 : May be corrosive to metals
	H314 : Causes severe skin burns and eye damage
	H335 : May cause respiratory irritation
	H411 : Toxic to aquatic life with long lasting effects
iv	Precautionary Statement(s)
	P234 : Keep only in original container/packaging.
	P273 : Avoid release to the environment
	P280 : Wear protective clothing, gloves, eye & face equipment
	P301 + P330 + P331 : IF SWALLOWED: rinse mouth. DO NOT induce vomiting
	P303 + P361 + P353 : IF ON SKIN (or hair): Remove all contaminated clothing. Rise skin with water/shower
	P304 + P340 + P310 : IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.
	P305 + P351 + P338 : IF IN EYES: Rise cautiously with water for several minutes. Remove contact lenses in present.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS
No information available

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances	
	Molecular Weight : 127.91 g/mol
	Constituent Elements : HI



### 4. FIRST AID MEASURES

<b>4.1 Symptoms</b>	
i	<b>Most important symptoms and effects, both acute and delayed</b>
	Causes burns by all exposure routes. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation
ii	<b>Indication of any immediate medical attention &amp; special treatment needed</b>
	If seeking medical attention, provide SDS document to physician.
<b>4.2 Description of first aid measures</b>	
i	Inhalation : If inhaled, move victim to fresh air. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
ii	Ingestion : Do NOT induce vomiting unless directed to do so by medical personnel. Rinse mouth out with water. If you feel still feel unwell, immediately make victim drink a slurry of activated charcoal in water (two glasses at most). Consult a doctor.
iii	Skin contact : Take off immediately all contaminated clothing. Wash skin with plenty of water. Cover the irritated skin with an emollient. If skin irritation occurs: Get medical advice/attention.
iv	Eye contact : Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice/attention.



### 5. FIRE FIGHTING MEASURES

<b>5.1 Extinguishing media</b>	
i	Suitable extinguishing agents : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide and extinguishing measures that are appropriate to local circumstances and the surrounding environment.
ii	Special hazards arising from the substance or mixture : Oxides of phosphorus Hydrogen Iodide Not combustible. Ambient fire may liberate hazardous vapours.
iii	Special remarks on Explosion Hazard : Hydrogen Iodide Gas, Hydriodic Acid Vapor.
iv	Advice for firefighters : Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.
v	Additional information : Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.





### 6. ACCIDENTAL RELEASE MEASURES

<b>6.1 Personal precautions, protective equipment &amp; emergency procedures</b>	Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Attention! Corrosive material. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
<b>6.2 Environmental precautions</b>	Corrosive solid. Stop leak if without risk. Keep material out of water sources and sewers. Attempt to stop leak if without undue personnel hazard. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dyke if needed. Call for assistance on disposal.
<b>6.3 Methods and material for containment and cleaning up</b>	Cover drains. Cover spill with non-combustible material e.g. sand, mud & vermiculite. Observe possible material restrictions (see sections 7 and 10). Use gloves to take up dry. Dispose-off properly. Clean up affected area carefully.



### 7. HANDLING AND STORAGE

<b>7.1 Precautions for safe handling</b>	Do not touch or walk through spilled material. Stop leak if you can do it without risk. If possible, turn leaking containers so that gas escapes rather than liquid. Prevent entry into waterways, sewers, basements or confined areas. Do not direct water at spill or source of leak. Use water spray to reduce vapors or divert vapor cloud drift. Avoid allowing water runoff to contact spilled material. Isolate area until gas has dispersed.
<b>7.2 Conditions for safe storage, including any incompatibilities</b>	Eliminate all ignition sources (no smoking, flares, sparks or flames) from immediate area. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
<b>7.3 Specific end use(s)</b>	The product has applications in the following industries such as reducing agent and in laboratory analysis; Used to produce pharmaceuticals, disinfectants, and other chemicals.





### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>8.1</b>	<b>Control Parameters</b>
	No data available
<b>8.2</b>	<b>Exposure Controls</b>
i	<i>Appropriate engineering controls</i>
	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
ii	<i>Personal protective equipment</i>
(a)	Eye / face protection
	Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU) safety glasses
(b)	Skin Protection
	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
(c)	Body Protection
	Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
(d)	Respiratory protection
	Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
(e)	Control of environmental exposure
	Do not let product enter drains.





### 9. PHYSICAL & CHEMICAL PROPERTIES

<b>Appearance</b>	Form: Liquid Colour: Light Yellow	<b>Flammability</b>	Not determined
<b>Odour</b>	Acrid	<b>Vapour pressure</b>	5,938 mm of Hg (@ 25°C)
<b>Odour threshold</b>	Not determined	<b>Relative vapour</b>	Not determined
<b>pH-value</b>	1.0	<b>Relative density</b>	Not determined
<b>Melting/Freezing point</b>	-50.8 °C	<b>Solubilities</b>	Extremely soluble in water
<b>Boiling point</b>	127.5 °C at 60 atm pressure	<b>Partition coefficient (n-octanol/water)</b>	Not determined
<b>Flash Point</b>	Not determined	<b>Auto/Self-ignition temperature</b>	Not determined
<b>Evaporation rate</b>	Not determined	<b>Decomposition temperature</b>	Not determined
<b>Flammability</b>	Not determined	<b>Viscosity</b>	Not determined
<b>Density</b>	5.23 g/cm <sup>3</sup> (25 °C)	<b>Poison Class</b>	Not determined



### 10. STABILITY & REACTIVITY

(a)	Reactivity	: Acids, Strong Non-oxidizing, Water and Aqueous Solutions
(b)	Chemical stability	: Hydriodic acid reacts exothermically with organic bases (amines, amides) and inorganic bases (oxides and hydroxides of metals). Reacts exothermically with carbonates (including limestone and building materials containing limestone) and hydrogen carbonates to generate carbon dioxide. Reacts with sulfides, carbides, borides, and phosphides to generate toxic or flammable gases
(c)	Possible hazardous reactions	: Generates dangerous gases or fumes in contact with: Metals Gives off hydrogen by reaction with metals. Exothermic reaction with: strong alkalis Strong oxidizing agents
(d)	Conditions to avoid	: Avoid high temperatures exposure to direct sunlight, & avoid contact with incompatible materials.
(e)	Incompatible material	: Magnesium, Water, Potassium chlorate, nitric acid
(f)	Hazardous decomposition products	: No data available





### 11. TOXICOLOGICAL INFORMATION

<b>11.1 Information on toxicological effects</b>	
No data available	
<b>11.2 Corrosion Irritation</b>	
Serious eye damage / irritation	Causes serious eye irritation. Redness, pain.
Respiratory or skin irritation	Frost bite, burn, pain
Germ cell mutagenicity	No data available
Carcinogenicity	No data available
Reproductive Toxicity	No data available
<b>11.3 Additional information</b>	
No data available	



### 12. ECOLOGICAL INFORMATION

<b>12.1 Toxicity</b>	
No data available	
<b>12.2 Persistence and degradability</b>	
(a) Persistence and degradability	Biodegradability
(b) Biodegradation	Data not available
<b>12.3 Bio accumulative potential</b>	
Data not available	
<b>12.4 Mobility in Soil</b>	
(a)	Data not available
<b>12.5 Results of PBT and vPvB assessment</b>	
No data available	
<b>12.6 Other adverse effects</b>	
Not known	



### 13. DISPOSAL CONSIDERATIONS


<b>13.1 Waste disposal recommendation's</b>	
i	General instructions
	Ensure that collection, transport, treatment, and disposal of waste product, containers and rinsate complies 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.
ii	Product / Packaging disposal recommendations
	Do not allow product to reach ground water, watercourse or sewage system. Danger to drinking water if even small quantities leak into ground water. Do not allow material





to be released to the environment without proper governmental permits.  
Environmental fate: Unknown.

### 14. TRANSPORT INFORMATION

14.1	In accordance with ADR / IMDG / IATA / ADN / RID				
	ADR	IMDG	IATA	ADN	RID
i	UN Number				
	UN 1787	UN 1787	UN 1787	UN 1787	UN 1787
ii	UN proper shipping name				
	Hydriodic Acid	Hydriodic Acid	Hydriodic Acid	Hydriodic Acid	Hydriodic Acid
iii	Transport hazard class				
	8	8	8	8	8
iv	Hazardous class symbols				
					
v	Packing group				
	II	II	II	II	II
vi	Environment hazards: Dangerous for the environment				
	Yes	Yes	Yes	Yes	Yes
vii	Marine Pollutant				
	Not applicable	No	Not applicable	Not applicable	Not applicable



### 15. REGULATORY INFORMATION

15.1	Regulations
i	TSCA (USA - Toxic Substance Control Act) Listed
ii	SARA TITLE III (USA - Superfund Amendments and Reauthorization Act) Not Reportable
iii	This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.





### 16. OTHER INFORMATION

<b>16.1 NFPA Rating</b>										
i	Health hazard	: 3 - Short exposure could cause serious temporary or moderate residual injury.								
ii	Fire hazard	: 0 - Materials that will not burn under typical dire conditions, including intrinsically non-combustible materials such as concrete, stone, and sand.								
iii	Reactivity	: 0 - Material that in themselves are normally stable, even under fire conditions.								
<b>16.2 HMIS Rating</b>		<table border="1"> <tr> <td>Health</td> <td align="right">3</td> </tr> <tr> <td>Fire</td> <td align="right">0</td> </tr> <tr> <td>Reactivity</td> <td align="right">1</td> </tr> <tr> <td>Personal Protection</td> <td align="right">H</td> </tr> </table>	Health	3	Fire	0	Reactivity	1	Personal Protection	H
Health	3									
Fire	0									
Reactivity	1									
Personal Protection	H									
i	Health	: 3 - Moderate Hazard - Temporary or minor injury may occur								
ii	Flammability	: 0 - Minimal Hazard - Materials that will not burn								
iii	Reactivity	: 1 - Slight Hazard - Normally stable material but becomes unstable at elevated temperatures and pressures. Substance considered explosive under OSHA's Hazard Communication Standard.								
vi	Personal Protection	: H - Splash goggles, gloves, apron, and vapor respirator.								
<b>16.3 Further Information</b>										
	The above information is derived from the available literature & believed to be correct but may not be complete & conclusive. The company shall not be responsible for any damage resulting from handling or usage of the product. The information shall be used only as a guide.									

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