



## MATERIAL SAFETY DATA SHEET (MSDS)

### SECTION 1: Identification

#### 1.1 Product identifiers

**Product Name :** Hydrobromic acid 48 %  
**Cat No.:** AC223320000; AC223320025; AC223325000  
**CAS No. :** 10035-10-6

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

**Recommended uses :** Laboratory chemicals  
**Uses advised against:** Food, drug, pesticide or biocidal product use.

#### 1.3 Details of the supplier of the safety data sheet

**Company :** Krishna Solvechem Limited.  
B/503, Sahayog, S. V. Road,  
Kandivali (West), Mumbai – 400067. India.  
**Telephone :** +91-22-6123 0222  
**Email :** [exports@kscl.co.in](mailto:exports@kscl.co.in)

#### 1.4 Emergency telephone number

**Emergency Phone :** +91-8657457330

### SECTION 2: Hazards identification

#### 2.1 Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Corrosive to metals	(Category 1)
Skin Corrosion/Irritation	(Category 1 B)
Serious Eye Damage/Eye Irritation	(Category 1)
Specific target organ toxicity (single exposure)	(Category 3)
Target Organs - Respiratory system.	

#### 2.2 Label elements

**Pictogram :**



**Signal word** Danger

**Hazard statement (s)** May be corrosive to metals



Causes severe skin burns  
and eye damage  
May cause respiratory  
irritation

**Precautionary  
statement (s)**

**Prevention**

Wash face, hands and any exposed skin thoroughly after handling .  
Wear protective gloves/protective clothing/eye protection/face protection  
Avoid breathing dust/fume/gas/mist/vapors/spray  
Use only outdoors or in a well-ventilated area  
Keep only in original container.

**Inhalation :**

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

**IF ON SKIN (or hair):**

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse.

**Eyes:**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

**Ingestion**

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

**Storage:**

Store in corrosive resistant polypropylene container with a resistant in liner.Store in a well-ventilated place.Keep container tightly closed



<b>Hazards not otherwise classified (HNOC)</b>	<p><b>Disposal:</b> Dispose of contents/container to an approved waste disposal plant</p> <p>None identified</p>
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**SECTION 3: Composition / information on ingredients**

**3.1**

Component	CAS-No	Weight %
Water	7732-18-5	52
Hydrobromic acid	10035-10-6	48

**SECTION 4: First aid measures**

**4.1 Description of first aid measures**

<b>General Advice :</b>	Show this safety datasheet to the doctor in attendance. Immediate medical attention is required.
<b>If inhalation :</b>	If not breathing, give artificial respiration. Remove from exposure, lie down. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician immediately.
<b>In case of skin contact :</b>	Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing and gloves including inside, before re-use. Call a physician immediately.
<b>In case of eye contact :</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
<b>Ingestion :</b>	Clean mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention.
<b>4.2 Most important symptoms and effects :</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
<b>4.3 Notes to Physician :</b>	Treat symptomatically





## SECTION 5: Firefighting effects

<b>5.1 Extinguishing media</b>				
<b>Suitable extinguishing media</b>	CO 2, dry chemical, dry sand, alcohol-resistant foam.			
<b>Unsuitable Extinguishing Media :</b>	No information available			
<b>5.2 Flash Point :</b>	No information available			
<b>Method :</b>	No information available			
<b>Autoignition Temperature:</b>	No information available			
<b>Explosion Limits:</b>				
<b>Upper</b>	No data available			
<b>Lower</b>	No data available			
<b>Sensitivity to Mechanical Impact</b>	No information available			
<b>Sensitivity to Static Discharge</b>	No information available			
<b>Specific Hazards Arising from the Chemical :</b>	Thermal decomposition can lead to release of irritating gases and vapors. The product causes burns of eyes, skin and mucous membranes.			
<b>Hazardous Combustion Products :</b>	Halogenated compounds. Thermal decomposition can lead to release of irritating gases and vapors.			
<b>5.4 Protective Equipment and Precautions for Firefighters:</b>	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.			
<b><u>NFPA:</u></b>	<b>Health</b>	<b>Flammability</b>	<b>Instability</b>	<b>Physical hazards</b>
	3	0	1	N/A



## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment as required. Ensure adequate ventilation. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

### 6.2 Environmental precautions

Should not be released into the environment.

### 6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe mist/vapors/spray. Do not ingest. If swallowed then seek immediate medical assistance.

### 7.2 Conditions for safe storage

Keep containers tightly closed in a dry, cool and well-ventilated place. Corrosives area. Incompatible materials. Strong oxidizing agents. Metals.

## SECTION 8: Exposure controls/personal protection

### 8.1 Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH	Mexico OEL (TWA)
Hydrobromic acid	Ceiling: 2 ppm	(Vacated) Ceiling: 3 ppm (Vacated) Ceiling: 10 mg/m <sup>3</sup> TWA: 3 ppm TWA: 10 mg/m <sup>3</sup>	IDLH: 30 ppm Ceiling: 3 ppm Ceiling: 10 mg/m <sup>3</sup>	Ceiling: 2 ppm

#### Legend

**ACGIH** - American Conference of Governmental Industrial Hygienists

**OSHA** - Occupational Safety and Health Administration

**NIOSH IDLH:** NIOSH - National Institute for Occupational Safety and Health

#### Engineering Measures

Ensure that eyewash stations and safety showers are close to the workstation location.  
Use only under a chemical fume hood.





## 8.2 Exposure controls

### Personal protective equipment -

#### Eye / Face protection

Tight sealing safety goggles. Face protection shield.

#### Skin protection and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

#### Respiratory protection

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.

#### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice..

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

a) Appearance	Form: liquid, color: clear to yellow
b) Odour	pungent
c) Odour Threshold	No information available
d) pH	<1
e) Melting point / freezing point	-11 °C / 12 .2 °F
f) Initial boiling point and boiling range	126 - 128 °C / 258.8 – 262.4 °F @ 760 mmHg
g) Flash point	No information available
h) Evaporation rate	No information available
i) Flammability (solid, gas)	Not applicable
j) Upper/lower flammability or explosive limits	No data available No data available
k) Vapour pressure	8 mm Hg @ 25 °C
l) Vapour density	2.8
m) Specific Gravity	1.480
n) Solubility	Soluble in water
o) Partition coefficient: n octanol/water	No data available
p) Auto-ignition temperature	No information available



## KSCL

q) Decomposition temperature	No information available
r) Viscosity	No information available
s) Molecular formula	H Br
t) Molecular Weight	80.9

### SECTION 10: Stability and Reactivity

10.1 Reactive Hazard :	None known, based on information available
10.2 Chemical stability :	Light sensitive. Air sensitive
10.3 Possibility of hazardous reactions :	None under normal processing.
10.4 Conditions to avoid :	Incompatible products. Excess heat. Exposure to air. Exposure to light.
10.5 Incompatible materials:	Strong oxidizing agents, metals
10.6 Hazardous decomposition products :	Halogenated compounds, thermal decomposition can lead to release of irritating gases and vapors.
10.7 Hazardous Polymerization	Hazardous polymerization does not occur.

### SECTION 11: Toxicological information

#### 11.1

#### Information on toxicological effects

##### Acute toxicity:

##### Product Information:

**Oral LD50**                      Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg

**Dermal LD50**                Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg

**Vapor LC50**                 Based on ATE data, the classification criteria are not met. ATE > 20 mg/l

##### Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Water	-	-	-
Hydrobromic acid	Not listed	Not listed	LC50 = 2858 ppm (Rat) 1 h

#### Toxicologically Synergistic Products

No information available





**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Irritation :** Causes burns by all exposure routes

**Sensitization:** No information available

**Carcinogenicity :** The table below indicates whether each agency has listed any ingredient as a carcinogen

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
Water	7732-18-5	Not listed	Not listed	Not listed	Not listed	Not listed
Hydrobromic acid	10035-10-6	Not listed	Not listed	Not listed	Not listed	Not listed

**Mutagenic Effects:** No information available.

**Reproductive Effects:** No information available.

**Developmental Effects :** No information available.

**Teratogenicity:** No information available.

**STOT - single exposure :** Respiratory system

**STOT - repeated exposure:** None known

**Aspiration hazard :** No information available.

**Symptoms / effects, both acute and delayed:** 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.

**Endocrine Disruptor Information :** No information available

**Other Adverse Effects :** The toxicological properties have not been fully investigated.

## SECTION 12: Ecological information

### 12.1

#### Ecotoxicity:

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Hydrobromic acid	EC50 = 130 mg/L 72h	LC50 = 65.04 mg/L 96h	Not listed	EC50 = 19 mg/L 48h

**12.2 Persistence and degradability:** Soluble in water. Persistence is unlikely based on information available

**Bioaccumulation/ Accumulation** No information available

**12.3 Mobility:** Will likely be mobile in the environment due its water solubility.





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#### 2.2 Label elements

**Pictogram :**



**Signal word** Danger

**Hazard statement (s)** May be corrosive to metals



### SECTION 13: Disposal considerations

**13.1 Waste treatment methods:** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

### SECTION 14: Transport information

**14.1 UN number:**

DOT: UN1788      TDG: UN1788  
 IATA: UN1788      IMDG: UN1788

**14.2 Proper shipping name**

DOT: HYDROBROMIC ACID  
 TDG: HYDROBROMIC ACID  
 IATA: HYDROBROMIC ACID  
 IMDG: HYDROBROMIC ACID

**14.3 Hazard Class**

DOT: 8      TDG: 8      IATA: 8      IMDG: 8

**14.4 Packing Group**

DOT: II      TDG: II      IATA: II      IMDG: II

**14.5 Ems – No. (Fire) : F-A, Ems – No. (Spillage) : S-B**

### SECTION 15: Regulatory information

**15.1 United states of America Inventory:**

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	TSCA - EPA Regulatory Flags
Water	7732-18-5	X	ACTIV E	-
Hydrobromic acid	10035-10-6	X	ACTIV E	-

**Legend:**





**16.2 Disclaimer:**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.