Safety Data Sheet HYDROBROMIC ACID 48%

SDS no. JGWZ481R • Version 1.0 • Date of issue: 2023-08-29

SECTION 1: Identification

GHS Product identifier

Product name	HYDROBROMIC ACID 48%

Other means of identification

HYDROBROMIC ACID 48% AR	HA029
Hydrogen bromide aqueous solution	

Recommended use of the chemical and restrictions on use

Medicine, analytical chemistry, solvent for ore minerals, manufacture of inorganic and some alkyl bromides, alkylation catalyst and laboratory reagent.

Supplier's details

Name	ChemSupply Australia Pty Ltd
Address	38-50 Bedford Street 5013 Gillman South Australia Australia
Telephone	08 8440 2000
email	www.chemsupply.com.au

Emergency phone number

CHEMCALL 1800 127 406 (Australia) / +64-4-917-9888 (International)

SECTION 2: Hazard identification

General hazard statement

Dangerous goods of Class 8 (Corrosive) are incompatible in a placard load with any of the following:
Class 1, Class 4.3, Class 5, Class 6, if the Class 6 dangerous goods are cyanides and the Class 8 dangerous goods are acids, Class 7; and are incompatible with food and food packaging in any quantity.

Classification of the substance or mixture

GHS classification in accordance with: UN GHS revision 7

- Serious eye damage/eye irritation, Cat. 1
- Corrosive to metals, Cat. 1
- Skin corrosion/irritation, Cat. 1A
- Specific target organ toxicity following single exposure, Cat. 3

GHS label elements, including precautionary statements

Pictograms

Signal word	**Danger**

Hazard statement(s)

H290	May be corrosive to metals
H314	Causes severe skin burns and eye damage
H335	May cause respiratory irritation

Precautionary statement(s)

P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER/doctor/physcian if you feel unwell.
P363	Wash contaminated clothing before reuse.
P390	Absorb spillage to prevent material-damage.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P406	Store in a corrosive resistant/… container with a resistant inner liner.
P501	Dispose of contents/container to an approved waste disposal facility

SECTION 3: Composition/information on ingredients

Mixtures

Molecular weight: 80.92

Components

Component	CAS no.	Concentration
Water (EC no.: 231-791-2)	**7732-18-5**	**50 - 54 % (weight)**
CLASSIFICATIONS: No data available. HAZARDS: No data available.		
Hydrobromic acid (EC no.: 233-113-0; Index no.: 035-002-00-0)	**10035-10-6**	**46 - 50 % (weight)**
CLASSIFICATIONS: Specific target organ toxicity following single exposure, Cat. 3; Skin corrosion/irritation, Cat. 1A. HAZARDS: H314 - Causes severe skin burns and eye damage; H335 - May cause respiratory irritation.		

SECTION 4: First-aid measures

Description of necessary first-aid measures

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

	First Aid Facilities: Maintain eyewash fountain in work area.
If inhaled	If inhaled, remove from contaminated area to fresh air immediately, avoid becoming a casualty. Make patient comfortable, keep warm and at rest until fully recovered. If breathing is difficult (or develops a bluish skin discolouration), supply oxygen by a qualified person. Apply artificial respiration with a respiratory medical device if not breathing. Do not use mouth to mouth resuscitation. Immediately medical attention is required.
In case of skin contact	Wash affected areas with copious quantities of water immediately. Remove contaminated clothing and wash before re-use. Seek urgent medical assistance.
In case of eye contact	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open. Seek immediate medical assistance.
If swallowed	Rinse mouth thoroughly with water immediately. DO NOT INDUCE VOMITING. Seek immediate medical advice.

Most important symptoms/effects, acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of immediate medical attention and special treatment needed, if necessary
For advice in an emergency, contact a Poisons Information Centre (Phone Australia 131 126) or a doctor at once.

SECTION 5: Fire-fighting measures

Suitable extinguishing media
Use fire extinguishing media appropriate for surrounding environment. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

Specific hazards arising from the chemical
Hazards from Combustion Products: Emits toxic fumes such as hydrogen bromide gas.

Material does not burn. Fire or heat will produce irritating, poisonous and/or corrosive gases.

Special protective actions for fire-fighters
Wear SCBA and chemical splash suit. Fully encapsulating, gas-tight suits should be worn for maximum protection. Structural firefighter's uniform is NOT effective for these materials.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures
Evacuate the area of all non-essential personnel. Avoid contact with skin, eyes, nose, mouth.
Wear protective clothing specified for normal operations (see Section 8)

Methods and materials for containment and cleaning up
Absorb or contain liquid with sand, earth or spill control material. Shovel up using non sparking tools and place in a labelled, sealable container for subsequent safe disposal. Put leaking containers in a labelled drum or overdrum.
Neutralize.
Prevent contamination of soil and water

SECTION 7: Handling and storage

Precautions for safe handling
Do not breath fumes which may accumulate in the vapour head-space of containers. Only use in well-ventilated areas. Use local exhaust extraction over processing area. In case of insufficient
ventilation, wear suitable respiratory equipment.

Conditions for safe storage, including any incompatibilities
Corrosiveness: Highly corrosive to most metals.

Air and light sensitive.

SECTION 8: Exposure controls/personal protection

Control parameters

CAS: 10035-10-6
Hydrobromic acid
AU/SWA (Australia): 3 Peak limitation ppm; 9.9 Peak limitation mg/m3 TWA inhalation; 3 Peak limitation ppm; 9.9 Peak limitation mg/m3 TWA inhalation;

Appropriate engineering controls
Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection
The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.

Skin protection
Hand protection should comply with AS 2161, Occupational protective gloves - Selection, use and maintenance.

Body protection
Safety boots in industrial situations is advisory, foot protection should comply with AS 2210, Occupational protective footwear - Guide to selection, care and use.

Clean clothing or protective clothing should be worn, preferably with and apron. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Respiratory protection
Where ventilation is not adequate, respiratory protection may be required. Avoid breathing dust, vapours or mists. Respiratory protection should comply with AS 1716 - Respiratory Protective Devices and be selected in accordance with AS 1715 - Selection, Use and Maintenance of Respiratory Protective Devices. Filter capacity and respirator type depends on exposure levels. In event of emergency or planned entry into unknown concentrations a positive pressure, full-facepiece SCBA should be used. If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Liquid
Appearance	Colourless or faintly yellow liquid.
Color	No data available.
Odor	Sharp choking odour. Strong pungent odour.

Odor threshold	No data available.
Melting point/freezing point	-11 °C
Boiling point or initial boiling point and boiling range	122 - 126 °C
Flammability	No data available.
Lower and upper explosion limit/flammability limit	No data available.
Flash point	No data available.
Explosive properties	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Oxidizing properties	No data available.
pH	Strong acid.
Kinematic viscosity	No data available.
Solubility	Solubility in Water: Soluble. Solubility in Organic Solvents: Soluble in methanol and acetone.
Partition coefficient n-octanol/water (log value)	No data available.
Vapor pressure	7.950 mm Hg @ 20 °C
Evaporation rate	No data available.
Density and/or relative density	Specific Gravity: 1.49 g/cm3
Relative vapor density	2.8 (air=1)
Particle characteristics	No data available.

Supplemental information regarding physical hazard classes
No data available.

Further safety characteristics (supplemental)
No data available.

SECTION 10: Stability and reactivity

Reactivity
Stable under normal conditions of storage and handling.

Chemical stability
Stable under ordinary conditions of use and storage. Darkens on exposure to air or light.

Possibility of hazardous reactions
Reacts violently with fluorine gas, ammonia, ozone, ferric oxide, alkalis, metals and strong oxidizing agents.

Hazardous Polymerization: Will not occur.

Conditions to avoid
Sensitive to light.

Incompatible materials
Strong bases, fluorine gas, ammonia, ozone, ferric oxide, alkalis, metals (i.e. copper, zinc, aluminum, steel) and strong oxidizing agents.

Hazardous decomposition products
Hydrogen bromide gas.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity
Ingestion: Causes severe irritation and burns to the mucous membranes, mouth, throat, oesophagus and gastrointestinal tract. Swallowing this material, risk of perforation in the oseophagus and stomach with symptoms including a sore throat, headache, abdominal pain, nausea, vomiting, diarrhea and death. Estimated fatal dose: I ml.

Inhalation: Causes severe irritation, destruction and burns to the upper respiratory tract and mucous membranes. Inhalation of this material results in the inflammation and edema of the larynx and bronchi, spasms, chemical pneumonitis, pulmonary edema and death. Symptoms of inhalation include of sore throat, coughing, wheezing, shortness of breath, headache, nausea, burning sensation, laryngitis and vomiting.

Skin corrosion/irritation
Skin contact with this material causes severe tissue irritation to the skin with symptoms including pain, redness, burns, blisters, and frostbite.

Serious eye damage/irritation
Causes severe burn and irritation to the eye with symptoms such as redness, pain, and blurred vision.

Respiratory or skin sensitization
No data available.

Germ cell mutagenicity
No data available.

Carcinogenicity
No data available.

Reproductive toxicity
No data available.

Summary of evaluation of the CMR properties
No data available.

Specific target organ toxicity (STOT) - single exposure
May cause respiratory irritation.

Specific target organ toxicity (STOT) - repeated exposure
No data available.

Aspiration hazard
No data available.

Additional information
Chronic Effects: Prolonged or repeated exposure to vapours may cause skin and respiratory tract irritation.

Hydrobromic acid: mouse LC50 inhalation 814ppm/1H (814ppm) National Technical Information Service. Vol. PB214-270,
rat LC50 inhalation 2858ppm/1H (2858ppm) National Technical Information Service. Vol. PB214-270,
rat LD50 intraperitoneal 76mg/kg (76mg/kg) Gigiena i Sanitariya. For English translation, see HYSAAV. Vol. 41(1), Pg. 105, 1976.
66666

SECTION 12: Ecological information

Toxicity
Forms corrosive mixtures with water even if diluted.

SECTION 13: Disposal considerations

Disposal methods

Product disposal
Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers.

Packaging disposal
Rinse empty conainers thoroughly before disposal or recycling.

Other disposal recommendations
Do not discharge this material into waterways, drains and sewers.

SECTION 14: Transport information

ADG (Road and Rail)
UN Number: 1788
Class: 8
Packing Group: II
Proper Shipping Name: HYDROBROMIC ACID

Hazchem emergency action code (EAC)
2R

IMDG
UN Number: 1788
Class: 8
Packing Group: II
EMS Number:
Proper Shipping Name: HYDROBROMIC ACID

IATA
UN Number: 1788
Class: 8
Packing Group: II
Proper Shipping Name: HYDROBROMIC ACID

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

Australia SUSMP
Poison Schedule: NS

Canadian Domestic Substances List (DSL)
Chemical name: Hydrobromic acid
CAS: 10035-10-6

New Jersey Right To Know Components

Common name: HYDROGEN BROMIDE
CAS number: 10035-10-6

Pennsylvania Right To Know Components
Chemical name: Hydrobromic acid
CAS number: 10035-10-6

SECTION 16: Other information

Further information/disclaimer
ChemSupply Australia Pty Ltd does not warrant that this product is suitable for any use or purpose. The user must ascertain the suitability of the product before use or application intended purpose. Preliminary testing of the product before use or application is recommended. Any reliance or purported reliance upon ChemSupply Australia Pty Ltd with respect to any skill or judgement or advice in relation to the suitability of this product of any purpose is disclaimed. Except to the extent prohibited at law, any condition implied by any statute as to the merchantable quality of this product or fitness for any purpose is hereby excluded. This product is not sold by description. Where the provisions of Part V, Division 2 of the Trade Practices Act apply, the liability of ChemSupply Australia Pty Ltd is limited to the replacement of supply of equivalent goods or payment of the cost of replacing the goods or acquiring equivalent goods.

Preparation information
All information provided in this data sheet or by our technical representatives is compiled from the best knowledge available to us. However,since data, safety standards and government regulations are subject to change and the conditions of handling and use, or misuse, are beyond our control, we make no warranty either expressed or implied, with respect to the completeness or accuracy to the information contained herein. ChemSupply Australia Pty Ltd accepts no responsibility whatsoever for its accuracy or for any results that may be obtained by customers from using the data and disclaims all liability for reliance on information provided in this data sheet or by our technical representatives.

Standard for the Uniform Scheduling of Medicines and Poisons, Commonwealth of Australia
National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'
Safe Work Australia, 'National Code of Practice fot the Preparation of Safety Data Sheets for Hazardous Chemicals', July 2020.
Safe Work Australia, 'National Guide for Classifying Hazardous Chemicals', July 2020.
Safe Work Australia, Workplace Exposure Standards for Airbourne Contaminants, December 2019
Safe Work Australia, Hazardous Chemical Information System (HCIS), hcis.safeworkaustralia.gov.au
IATA, Dangerous Goods Regulations (DGR)
IMO, International Maritime Dangerous Goods Code (IMDG)