Hydrobromic acid

244260-500ML

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1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product information

Trade name	:	Hydrobromic acid
Number	:	000000020203
Recommended use of the chemical and restrictions on use	:	Laboratory chemicals
Manufacturer or supplier's details	:	Honeywell Specialty Chemicals Seelze GmbH Wunstorfer Straße 40 Seelze, 30926
For further information, please contact:	:	1-800-368-0050 +1-231-726-3171 (Monday-Friday, 9:00am-5:00pm)
In case of emergency call	:	**Medical: 1-800-498-5701 or +1-303-389-1414**
	:	**Transportation (CHEMTREC): 1-800-424-9300 or +1-703-527-3887** **In Japan: +(81)-345209637**
	:	(24 hours/day, 7 days/week)

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification of the substance or mixture	:	Skin corrosion, Category 1A Serious eye damage, Category 1 Specific target organ toxicity - single exposure, Category 3 Short-term (acute) aquatic hazard, Category 3

GHS Label elements, including precautionary statements

Symbol(s) :

Signal word	:	Danger
Hazard statements	:	Causes severe skin burns and eye damage. May cause respiratory irritation.

Harmful to aquatic life.

Precautionary statements : **Prevention:**
Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
Wash skin thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Avoid release to the environment.
Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a POISON CENTER/ doctor.
Wash contaminated clothing before reuse.

Storage:
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.

Disposal:
Dispose of contents/ container to an approved waste disposal plant.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula : HBr

Chemical nature : Mixture

Chemical name	CAS-No.	Concentration
Water Water	7732-18-5	52.00 %
Hydrogen bromide Hydrogen bromide	10035-10-6	48.00 %

Note: Substances Subject to be Notified Names
Note: Deleterious Substances - Cabinet Order

4. FIRST AID MEASURES

General advice	:	First aider needs to protect himself. Immediately take off contaminated clothing and rinse body with plenty of water. Show this safety data sheet to the doctor in attendance.
Inhalation	:	Remove to fresh air. Consult a physician.
Skin contact	:	After contact with skin, wash immediately with plenty of water. Take off immediately all contaminated clothing. Call a physician immediately.
Eye contact	:	In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Protect unharmed eye.
Ingestion	:	Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician immediately.

5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Water spray Foam Carbon dioxide (CO2) Dry powder
Specific hazards during firefighting	:	Fire may cause evolution of: Hydrogen bromide Bromine compounds Heating will cause pressure rise with risk of bursting Exposure to decomposition products may be a hazard to health. Cool closed containers exposed to fire with water spray.
Special protective equipment for firefighters	:	Wear self-contained breathing apparatus and protective suit. No unprotected exposed skin areas.
Further information	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. The product itself does not burn.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Wear personal protective equipment. Unprotected persons must be kept away. Do not breathe vapours, mist or gas. Do not get in eyes, on skin, or on clothing.
Environmental precautions	:	Suppress (knock down) gases/vapours/mists with a water spray jet. Do not let product enter drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities. Clean contaminated floors and objects thoroughly while observing environmental regulations.
Methods and materials for containment and cleaning up	:	Soak up with inert absorbent material. Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Handling

Precautions for safe handling	:	Wear personal protective equipment. Use only with adequate ventilation. Use only acid resistant equipment. Always have on hand a first-aid kit, together with proper instructions. Plan first aid action before beginning work with this product.
Advice on protection against fire and explosion	:	Normal measures for preventive fire protection.

Storage

Conditions for safe storage, including any incompatibilities	:	Keep containers tightly closed in a dry, cool and well-ventilated place. Store in original container. Protect from physical damage. Store away from incompatible substances.
Advice on common storage	:	Keep away from oxidizing agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters
Contains no substances with occupational exposure limit values.

Appropriate engineering controls

Use with local exhaust ventilation.

Individual protection measures, such as personal protective equipment

Respiratory protection	:	In the case of vapour formation use a respirator with an approved filter.
Hand protection	:	Impervious gloves Gloves must be inspected prior to use. Replace when worn.
Eye protection	:	Safety goggles
Skin and body protection	:	acid-proof protective clothing
Hygiene measures	:	Take off all contaminated clothing immediately. Remove and wash contaminated clothing before re-use. Keep working clothes separately. Separate rooms are required for washing, showering and changing clothes. Wash hands before breaks and at the end of workday. When using do not eat or drink.
Protective measures	:	Ensure that eyewash stations and safety showers are close to the workstation location. Legal requirements are to be considered in regard of the selection, use and care of personal protective equipment. Do not breathe vapours or spray mist. Do not get in eyes, on skin, or on clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	:	liquid
Colour	:	light yellow
Odour	:	stinging
pH	:	Note: acidic

Melting point/range	:	ca. -11 °C
Boiling point/boiling range	:	126 °C at 1,013 hPa
Flash point	:	Note: Not applicable
Lower explosion limit	:	Note: Not applicable
Upper explosion limit	:	Note: Not applicable
Vapour pressure	:	60 hPa at 50 °C(122 °F)
Density	:	ca. 1.490 g/cm3 at 20 °C
Water solubility	:	Note: completely miscible
Partition coefficient: n-octanol/water	:	Note: no data available
Ignition temperature	:	Note: Not applicable
Decomposition temperature	:	Note: No decomposition if used as directed.
Molecular weight	:	80.91 g/mol

10. STABILITY AND REACTIVITY

Chemical stability	:	Stable under recommended storage conditions.
Possibility of hazardous reactions	:	Gives off hydrogen by reaction with metals. Hazardous polymerisation does not occur.

Conditions to avoid	:	Protect from heat/overheating.
Incompatible materials to avoid	:	Incompatible with oxidizing agents.
Hazardous decomposition products	:	Hydrogen bromide Bromine compounds

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	:	Note: Toxicity is determined by the corrosivity of the product.
Acute inhalation toxicity	:	Note: Toxicity is determined by the corrosivity of the product.
Acute dermal toxicity	:	Note: Toxicity is determined by the corrosivity of the product.
Skin irritation	:	Result: Corrosive
Eye irritation	:	Result: Corrosive
Sensitisation	:	Note: no data available

12. ECOLOGICAL INFORMATION

Toxicity

Toxicity to fish	:	Note: no data available
Toxicity to daphnia and other aquatic invertebrates	:	static test EC50: 19 mg/l Exposure time: 48 h Species: Daphnia magna (Water flea) Method: EEC 92/69/V, C2
Toxicity to algae	:	Biomass EC50: 56 mg/l

Exposure time: 72 h
Species: Pseudokirchneriella subcapitata (green algae)
Method: 92/69/EEC, C.3

: Growth rate
EC50: 56 mg/l
Exposure time: 130 h
Species: Pseudokirchneriella subcapitata (green algae)
Method: 92/69/EEC, C.3

Toxicity to bacteria : Note: no data available

Persistence and degradability

Biodegradability : Note: The methods for determining the biological degradability are not applicable to inorganic substances.

Ecotoxicology Assessment

Results of PBT assessment
This substance is not considered to be persistent, bioaccumulating and toxic (PBT)., This substance is not considered to be very persistent and very bioaccumulating (vPvB).

13. DISPOSAL CONSIDERATIONS

Disposal methods : In accordance with local and national regulations.

14. TRANSPORT INFORMATION

ADR

UN/ID No.	:	UN 1788
Description of the goods	:	HYDROBROMIC ACID
Class	:	8
Packing group	:	II
Classification Code	:	C1
Hazard Identification Number	:	80
Labels	:	8

IATA

UN/ID No.	:	UN 1788
Description of the goods	:	Hydrobromic acid
Class	:	8
Packing group	:	II
Labels	:	8
Packing instruction (cargo aircraft)	:	855
Packing instruction (passenger aircraft)	:	851
Packing instruction (passenger aircraft)	:	Y840

IMDG

UN/ID No.	:	UN 1788
Description of the goods	:	HYDROBROMIC ACID
Class	:	8
Packing group	:	II
Labels	:	8
EmS Number 1	:	F-A
EmS Number 2	:	S-B
Marine pollutant	:	no

15. REGULATORY INFORMATION

National regulatory information

Vessel Safety Law JP VSL	:	Corrosive substances (Article 2 and 3 of rules on shipping and storage of dangerous goods and its Attached Table 1)
Aviation Law JP AVL	:	Corrosive substances (Article 194 of The Enforcement Rules of Aviation Law and its Attached Table 1)
Fire Service Law	:	Not relevant
Japan. ISHL Hazardous Substances Labeling Requirements (ISHL Art. 57, Enforcement Order Art. 18, Enforcement Rule Art. 30 & 31, as amended through 6 April 2018)	:	Listed Hydrogen bromide 10035-10-6

Japan. SDS and Risk Assessment Requirements (ISHL Art. 57-2 and 57-3, Enforcement Order Art. 18-2, Enforcement Rule Art. 34-2 and 34-2-2), as amended	:	Listed Hydrogen bromide 10035-10-6
Poisonous and Deleterious Substances Control Law	:	Deleterious substance not for pharmaceutical use 88 Listed Hydrogen bromide 10035-10-6

Other international regulations

Notification status

US. Toxic Substances Control Act	:	On TSCA Inventory
Australia. Industrial Chemical (Notification and Assessment) Act	:	On the inventory, or in compliance with the inventory
Canada. Canadian Environmental Protection Act (CEPA). Domestic Substances List (DSL)	:	All components of this product are on the Canadian DSL
Japan. Kashin-Hou Law List	:	On the inventory, or in compliance with the inventory
Korea. Existing Chemicals Inventory (KECI)	:	On the inventory, or in compliance with the inventory
Philippines. The Toxic Substances and Hazardous and Nuclear Waste Control Act	:	On the inventory, or in compliance with the inventory
China. Inventory of Existing Chemical Substances (IECSC)	:	On the inventory, or in compliance with the inventory
New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand	:	On the inventory, or in compliance with the inventory

16. OTHER INFORMATION

		HMIS III	NFPA
Health hazard	:	3*	3
Flammability	:	0	0
Physical Hazard	:	2	
Instability	:		0

* - Chronic health hazard
Hazard rating and rating systems (e.g. HMIS® III, NFPA): This information is intended solely for the use of individuals trained in the particular system.

Further information

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 a 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. Final determination of suitability of any material is the sole responsibility of the user. This information should not constitute a guarantee for any specific product properties.

Changes since the last version are highlighted in the margin. This version replaces all previous versions.
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Prepared by Honeywell Performance Materials and Technologies Product Stewardship Group