



Wuhan Xinru Chemical Industry Co., Ltd

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MATERIAL SAFETY DATA SHEET

Product Identification

【Product Name】 Hydrogen bromide

【Synonyms】 Hydrogen bromide, anhydrous

【CAS】 10035-10-6

【Formula】 BrH

【Molecular Weight】 80.91

【EINECS】 233-113-0

【RTECS】 MW3850000

【RTECS Class】 Other

【Merck】 13,4799

【Beilstein/Gmelin】 620 (G)

【EC Index Number】 035-002-00-0

【EC Class】 Corrosive; Irritant

Physical and Chemical Properties

【Appearance】 A colorless to yellow aqueous liquid with a pungent odor.

【Solubility in water】 Miscible

【Melting Point】 -86

【Boiling Point】 -66.7

【Vapor Pressure】 20 (25 C)

【Density】 1.49 g/cm³



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【pKa/pKb】 -9(at 25°C) (pKa)

【Heat Of Vaporization】 17.15 kJ/mol

【Usage】 In analytical chemistry & organic preparations.

【Vapor Density】 2.8

【Odor threshold】 6.6667 mg/m³

【Refractive Index】 1.325 (10 C)

First Aid Measures

【Ingestion】

Do NOT induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.

【Inhalation】

Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

【Skin】

Get medical aid. Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes.

【Eyes】

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

Handling and Storage

【Storage】 Store in a cool, dry place. Keep container closed when not in use.

【Handling】

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.

Hazards Identification

【Inhalation】

May cause respiratory tract irritation. The toxicological properties of this substance have not been fully investigated.



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【Skin】 May cause skin irritation.

【Eyes】 May cause eye irritation.

【Ingestion】

Ingestion of large amounts may cause gastrointestinal irritation. The toxicological properties of this substance have not been fully investigated.

【Hazards】

Pressurized container may explode and release toxic, irritating vapor.

【EC Risk Phrase】 R 34 37

【EC Safety Phrase】 S 7/9 26 45

【UN (DOT)】 1048

Exposure Controls/Personal Protection

【Personal Protection】

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. Skin: Wear appropriate protective gloves and clothing to prevent skin exposure. Clothing: Wear appropriate protective clothing to minimize contact with skin.

【Respirators】

Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

【Exposure Effects】

Fever may occur with chronic intoxication. Acute intoxication can result in CNS depression and coma. Bromides cross the placenta and may be detected in the milk of nursing mothers. Case reports suggest that prenatal exposure may cause growth retardation, craniofacial abnormalities and developmental delay.

【Exposure limit(s)】

NIOSH REL: C 3 ppm (10 mg/m³) OSHA PEL: TWA 3 ppm (10 mg/m³) IDLH 30 ppm

【Poison Class】 2

Fire Fighting Measures

【Flash Point】 40



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【Fire Fighting】

Wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. To extinguish fire, use water, dry chemical, chemical foam, or alcohol-resistant foam.

【Fire Potential】

Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.

Accidental Release Measures

【Small spills/leaks】

Clean up spills immediately, using the appropriate protective equipment. Sweep up, then place into a suitable container for disposal.

Stability and Reactivity

【Stability】 Stable under normal temperatures and pressures.

【Incompatibilities】 Strong oxidants.

【Decomposition】

Nitrogen oxides, carbon monoxide, irritating and toxic fumes and gases, carbon dioxide, nitrogen.

【Combustion Products】

If involved in a fire decomposes to produce irritants and toxic gases.

Transport Information

【UN Number】 1048

【Hazard Class】 2.3