

## Material Safety Data Sheet

Date Printed: 25/APR/2013  
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Version 1.9  
Regulation (EC) No 1907/2006

## 1 - Product and Company Information

Product Name HYDROBROMIC ACID 48 %, R. G., REAG.  
ACS, REAG. ISO  
Product Number 30209  
Company Sigma-Aldrich GmbH  
Industriestrasse 25  
9470 Buchs  
Switzerland  
Technical Phone # 41-81-755-2511  
Fax 41-81-756-5449  
E-mail Address eurtechserv@sial.com  
Emergency Phone # 41-81-755-2255  
145(CH)  
41-44-251-5151  
(Toxikologisches Informationszentrum)

## 2 - Hazards Identification

SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT  
Causes severe burns. Irritating to respiratory system.

## 3 - Composition/Information on Ingredients

Product Name	CAS #	EC no	Annex I Index Number
HYDROBROMIC ACID >40% - <=49%	10035-10-6	233-113-0	035-002-01-8

Formula HBr  
Molecular Weight 80,9200 AMU  
Synonyms Acide bromhydrique (French) \* Acido bromidrico  
(Italian) \* Anhydrous hydrobromic acid \*  
Bromowodor (Polish) \* Bromwasserstoff (German) \*  
Broomwaterstof (Dutch) \* Hydrogen bromide  
(ACGIH:OSHA)

## 4 - First Aid Measures

## AFTER INHALATION

If inhaled, remove to fresh air. If not breathing give  
artificial respiration. If breathing is difficult, give oxygen.

## AFTER SKIN CONTACT

In case of skin contact, flush with copious amounts of water for  
at least 15 minutes. Remove contaminated clothing and shoes.  
Call a physician.

## AFTER EYE CONTACT

In case of contact with eyes, flush with copious amounts of

water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

#### AFTER INGESTION

If swallowed, wash out mouth with water provided person is conscious. Call a physician immediately. Do not induce vomiting.

#### GENERAL INFORMATION

Contamination of the eyes should be treated by immediate and prolonged irrigation with copious amounts of water.

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#### 5 - Fire Fighting Measures

##### EXTINGUISHING MEDIA

Suitable: Carbon dioxide, dry chemical powder, or appropriate foam.

##### SPECIAL RISKS

Specific Hazard(s): Emits toxic fumes under fire conditions.

##### SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

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#### 6 - Accidental Release Measures

##### PERSONAL PRECAUTION PROCEDURES TO BE FOLLOWED IN CASE OF LEAK OR SPILL

Evacuate area.

##### PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

##### METHODS FOR CLEANING UP

Cover with dry lime or soda ash, pick up, keep in a closed container, and hold for waste disposal. Ventilate area and wash spill site after material pickup is complete.

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#### 7 - Handling and Storage

##### HANDLING

Directions for Safe Handling: Do not breathe vapor. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

##### STORAGE

Conditions of Storage: Keep tightly closed.

SPECIAL REQUIREMENTS: Air sensitive.

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#### 8 - Exposure Controls / Personal Protection

##### ENGINEERING CONTROLS

Use only in a chemical fume hood. Safety shower and eye bath.

##### GENERAL HYGIENE MEASURES

Wash contaminated clothing before reuse. Discard contaminated shoes. Wash thoroughly after handling.

##### EXPOSURE LIMITS

Country	Source	Type	Value
Poland		NDS	-
Poland		NDSch	-
Poland		NDSP	6.5

EXPOSURE LIMITS - EUROPEAN UNION

Source	Type	Value
OEL	STEL	6,7000 mg/m3 2,0000 ppm

EXPOSURE LIMITS - DENMARK

Source	Type	Value
OEL	TWA	6,7000 mg/m3 2,0000 ppm

Remarks: L

EXPOSURE LIMITS - SWEDEN

Source	Type	Value
	LLV (Level)	3,5000 mg/m3 1,0000 ppm

PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). 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.

Hand Protection: Compatible chemical-resistant gloves.

Eye Protection: Chemical safety goggles.

Special Protective Measures: Faceshield (8-inch minimum).

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9 - Physical and Chemical Properties

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Appearance	Physical State: Liquid Color: Very faintly brown-yellow	
Property	Value	At Temperature or Pressure
pH	N/A	
BP/BP Range	100,000 °C	760,000 mmHg
MP/MP Range	N/A	
Flash Point	N/A	
Flammability	N/A	
Autoignition Temp	N/A	
Oxidizing Properties	N/A	
Explosive Properties	N/A	
Explosion Limits	N/A	
Vapor Pressure	8,000000000 mmHg	25,00 °C
SG/Density	1,4900 g/cm3	
Partition Coefficient	N/A	
Viscosity	N/A	
Vapor Density	2,800 g/l	
Saturated Vapor Conc.	N/A	
Evaporation Rate	N/A	
Bulk Density	N/A	
Decomposition Temp.	N/A	
Solvent Content	N/A	
Water Content	N/A	

Surface Tension	N/A
Conductivity	N/A
Miscellaneous Data	N/A
Solubility	N/A

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## 10 - Stability and Reactivity

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### STABILITY

Stable: Stable.

Conditions to Avoid: Air sensitive.

Materials to Avoid: Strong oxidizing agents, Strong bases, Ammonia, Ozone, Fluorine.

### HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Hydrogen bromide gas.

### HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

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## 11 - Toxicological Information

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RTECS NUMBER: MW3850000

### ACUTE TOXICITY

LC50

Inhalation

Rat

2.858, ppm

1 H

LC50

Inhalation

Mouse

814,000 ppm

1 H

### IRRITATION DATA

Skin

Remarks: Severe irritation effect

Eyes

Remarks: Severe irritation effect

### SIGNS AND SYMPTOMS OF EXPOSURE

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema.

Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting.

### ROUTE OF EXPOSURE

Skin Contact: Causes burns.

Skin Absorption: May be harmful if absorbed through the skin.

Eye Contact: Causes burns.

Inhalation: May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

Ingestion: May be harmful if swallowed.

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12 - Ecological Information

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No data available.

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13 - Disposal Considerations

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SUBSTANCE DISPOSAL

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

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14 - Transport Information

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RID/ADR

UN#: 1788  
Class: 8  
PG: II  
Proper Shipping Name: Hydrobromic acid

IMDG

UN#: 1788  
Class: 8  
PG: II  
Proper Shipping Name: Hydrobromic acid  
Marine Pollutant: No  
Severe Marine Pollutant: No

IATA

UN#: 1788  
Class: 8  
PG: II  
Proper Shipping Name: Hydrobromic acid  
Inhalation Packing Group I: No

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15 - Regulatory Information

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CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES

ANNEX I INDEX NUMBER: 035-002-01-8

NOTA: B

INDICATION OF DANGER: C

Corrosive.

R-PHRASES: 35-37

Causes severe burns. Irritating to respiratory system.

S-PHRASES: 7/9-26-45

Keep container tightly closed and in well-ventilated place. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

COUNTRY SPECIFIC INFORMATION

Germany

WGK: 1  
ID-Number: 217  
KBwS-Decision

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WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2010 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

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