



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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# Hydrobromic acid solution: sc-250128



The Power to Question

## MATERIAL SAFETY DATA SHEET

### 1 Identification of substance:

**Product Name:** Hydrobromic acid solution  
**Catalog Number:** sc-250128  
**Supplier:** Santa Cruz Biotechnology, Inc.  
2145 Delaware Avenue  
Santa Cruz, California 95060  
800.457.3801 or 831.457.3800  
**Emergency:** ChemWatch  
Within the US & Canada: 877-715-9305  
Outside the US & Canada: +800 2436 2255  
(1-800-CHEMCALL) or call +613 9573 3112

### 2 Hazard(s) identification

**Classification of the substance or mixture**  
**Classification according to Regulation (EC) No 1272/2008**



GHS05 Corrosion

H314 Causes severe skin burns and eye damage.



GHS07

H335 May cause respiratory irritation.

H227 Combustible liquid.

**Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



C; Corrosive

R35: Causes severe burns.



Xi; Irritant

R37: Irritating to respiratory system.

**Hazards not otherwise classified** No information known.

#### Label elements

**Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labeled according to the CLP regulation.

#### Hazard pictograms



GHS05



GHS07

**Signal word** Danger

#### Hazard-determining components of labeling:

acetic acid

Hydrogen bromide

#### Hazard statements

H227 Combustible liquid.

H314 Causes severe skin burns and eye damage.

H335 May cause respiratory irritation.

#### Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**WHMIS classification**

B3 - Combustible liquid

D2B - Toxic material causing other toxic effects

E - Corrosive material



**Classification system**

**HMIS ratings (scale 0-4)**

**(Hazardous Materials Identification System)**

HEALTH	3	Health (acute effects) = 3
FIRE	2	Flammability = 2
REACTIVITY	1	Reactivity = 1

**Other hazards**

**Results of PBT and vPvB assessment**

**PBT:** Not applicable.

**vPvB:** Not applicable.

### 3 Composition/information on ingredients

**Chemical characterization: Mixtures**

**Dangerous components:**

64-19-7	acetic acid	⚠ H226; ⚠ H314	67.0%
10035-10-6	Hydrogen bromide	⚠ H280; ⚠ H314; ⚠ H335	33.0%

**CAS Number** 37348-16-6

**Additional information** None known.

### 4 First-aid measures

**Description of first aid measures**

**General information** Immediately remove any clothing soiled by the product.

**After inhalation**

Supply fresh air. If required, provide artificial respiration. Keep patient warm.

Seek immediate medical advice.

**After skin contact**

Immediately wash with water and soap and rinse thoroughly.

Seek immediate medical advice.

**After eye contact**

Rinse opened eye for several minutes under running water. Then consult a doctor.

**After swallowing** Seek medical treatment.

**Information for doctor**

**Most important symptoms and effects, both acute and delayed**

No further relevant information available.

**Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

### 5 Fire-fighting measures

**Extinguishing media**

**Suitable extinguishing agents**

Use carbon dioxide, extinguishing powder or foam. Water may be ineffective but may be used for cooling exposed containers.

**Special hazards arising from the substance or mixture**

If this product is involved in a fire, the following can be released:

Carbon monoxide and carbon dioxide

Hydrogen bromide (HBr)

**Advice for firefighters**

**Protective equipment:**

Wear self-contained respirator.

Wear fully protective impervious suit.

## 6 Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

### Environmental precautions:

Do not allow material to be released to the environment without proper governmental permits.

Do not allow product to reach sewage system or any water course.

Do not allow to penetrate the ground/soil.

### Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Use neutralizing agent.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

**Prevention of secondary hazards:** Keep away from ignition sources.

### Reference to other sections

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

## 7 Handling and storage

### Handling

#### Precautions for safe handling

Keep container tightly sealed.

Store in cool, dry place in tightly closed containers.

Ensure good ventilation at the workplace.

Prevent formation of aerosols.

**Information about protection against explosions and fires:** Keep ignition sources away.

#### Conditions for safe storage, including any incompatibilities

**Storage** Store at room temperature.

**Requirements to be met by storerooms and receptacles:** No special requirements.

#### Information about storage in one common storage facility:

Store away from metals.

Store away from strong bases.

Store away from oxidizing agents.

#### Further information about storage conditions:

Keep container tightly sealed.

Store in cool, dry conditions in well sealed containers.

**Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

### Additional information about design of technical systems:

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

### Control parameters

#### Components with limit values that require monitoring at the workplace:

##### 64-19-7 acetic acid (67.0%)

PEL (USA)	25 mg/m <sup>3</sup> , 10 ppm
REL (USA)	Short-term value: 37 mg/m <sup>3</sup> , 15 ppm Long-term value: 25 mg/m <sup>3</sup> , 10 ppm
TLV (USA)	Short-term value: 37 mg/m <sup>3</sup> , 15 ppm Long-term value: 25 mg/m <sup>3</sup> , 10 ppm
EL (Canada)	Short-term value: 15 ppm Long-term value: 10 ppm
EV (Canada)	Short-term value: 37 mg/m <sup>3</sup> , 15 ppm Long-term value: 25 mg/m <sup>3</sup> , 10 ppm

##### 10035-10-6 Hydrogen bromide (33.0%)

PEL (USA)	10 mg/m <sup>3</sup> , 3 ppm
REL (USA)	Short-term value: C 10 mg/m <sup>3</sup> , C 3 ppm
TLV (USA)	Short-term value: C 6.8 mg/m <sup>3</sup> , C 2 ppm
EL (Canada)	Short-term value: C 2 ppm

**Additional information:** No data

**Exposure controls****Personal protective equipment****General protective and hygienic measures**

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Remove all soiled and contaminated clothing immediately.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Maintain an ergonomically appropriate working environment.

**Breathing equipment:** Use suitable respirator when high concentrations are present.

**Recommended filter device for short term use:**

Use a respirator with organic vapor/acid gas cartridges as a backup to engineering controls.

Risk assessment should be performed to determine if air-purifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards such as NIOSH (USA) or CEN (EU).

**Protection of hands:**

Impervious gloves

Check protective gloves prior to each use for their proper condition.

The selection of suitable gloves not only depends on the material, but also on quality.

Quality will vary from manufacturer to manufacturer.

**Material of gloves**

Neoprene

Nitrile rubber, NBR

**Eye protection:**

Tightly sealed goggles

Full face protection

**Body protection:** Protective work clothing.

**9 Physical and chemical properties****Information on basic physical and chemical properties****General Information****Appearance:**

**Form:** Fuming liquid

**Formula:** HBr

**Weight:** 80.91

**pH-value:** Not determined.

**Change in condition**

**Melting point/Melting range:** Not determined

**Boiling point/Boiling range:** Not determined

**Sublimation temperature / start:** Not determined

**Flash point:** 65 °C (149 °F)

**Flammability (solid, gaseous)** Not determined.

**Ignition temperature:** 485 °C (905 °F)

**Decomposition temperature:** Not determined

**Auto igniting:** Product is not selfigniting.

**Explosion limits:**

**Lower:** 4.0 Vol %

**Upper:** 17.0 Vol %

**Vapor pressure at 20 °C (68 °F):** 22500 hPa (16876 mm Hg)

**Density at 20 °C (68 °F):** 1.4 g/cm<sup>3</sup> (11.683 lbs/gal)

**Relative density** Not determined.

**Vapor density** Not determined.

**Evaporation rate** Not determined.

**Solubility in / Miscibility with**

**Water:** Fully miscible

**Partition coefficient (n-octanol/water):** Not determined.

**Viscosity:**

**dynamic:** Not determined.

**kinematic:** Not determined.

**Solvent content:**

**Organic solvents:** 67.0 %

**Other information** No further relevant information available.

## 10 Stability and reactivity

**Reactivity** No information known.

**Chemical stability** Stable under recommended storage conditions.

**Thermal decomposition / conditions to be avoided:**

Decomposition will not occur if used and stored according to specifications.

**Possibility of hazardous reactions** Reacts with strong oxidizing agents

**Incompatible materials:**

Bases

Oxidizing agents

Metals

**Hazardous decomposition products:**

Carbon monoxide and carbon dioxide

Hydrogen bromide

## 11 Toxicological information

**Information on toxicological effects**

**Acute toxicity:**

Swallowing will lead to a strong corrosive effect on mouth and throat and to the danger of perforation of esophagus and stomach.

The Registry of Toxic Effects of Chemical Substances (RTECS) contains acute toxicity data for components in this product.

**LD/LC50 values that are relevant for classification:**

**64-19-7 acetic acid**

Oral	LD50	3310 mg/kg (rat)
Dermal	LD50	1060 mg/kg (rabbit)
Inhalative	LC50/1H	5620 ppm/1H (mouse)

**10035-10-6 Hydrogen bromide**

Inhalative	LC50/4H	2858 mg/m <sup>3</sup> /4H (rat)
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**Skin irritation or corrosion:** Causes severe skin burns.

**Eye irritation or corrosion:** Causes serious eye damage.

**Sensitization:** No sensitizing effects known.

**Germ cell mutagenicity:**

The Registry of Toxic Effects of Chemical Substances (RTECS) contains mutation data for components in this product.

**Carcinogenicity:**

The Registry of Toxic Effects of Chemical Substances (RTECS) contains tumorigenic and/or carcinogenic and/or neoplastic data for components in this product.

**Reproductive toxicity:**

The Registry of Toxic Effects of Chemical Substances (RTECS) contains reproductive data for components in this product.

**Specific target organ system toxicity - repeated exposure:** No effects known.

**Specific target organ system toxicity - single exposure:** May cause respiratory irritation.

**Aspiration hazard:** No effects known.

**Subacute to chronic toxicity:**

The Registry of Toxic Effects of Chemical Substances (RTECS) contains multiple dose toxicity data for components in this product.

**Additional toxicological information:**

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

The product shows the following dangers according to internally approved calculation methods for preparations:

Corrosive

Irritant

## 12 Ecological information

**Toxicity**

**Aquatic toxicity:** No further relevant information available.

**Persistence and degradability** No further relevant information available.

**Behavior in environmental systems:**

**Bioaccumulative potential** No further relevant information available.

**Mobility in soil** No further relevant information available.

**Additional ecological information:**

**General notes:**

Do not allow material to be released to the environment without proper governmental permits. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Avoid transfer into the environment.




**Results of PBT and vPvB assessment**

PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects No further relevant information available.

**13 Disposal considerations****Waste treatment methods****Recommendation** Consult state, local or national regulations to ensure proper disposal.**Uncleaned packagings:****Recommendation:** Disposal must be made according to official regulations.**Recommended cleansing agent:** Water, if necessary with cleansing agents.**14 Transport information**

<b>UN-Number</b> DOT, ADR, IMDG, IATA	UN3265
<b>UN proper shipping name</b> DOT, IMDG, IATA  ADR	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (HYDROGEN BROMIDE, Acetic acid, glacial) 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (HYDROGEN BROMIDE, Acetic acid, glacial)
<b>Transport hazard class(es)</b> DOT	
	
<b>Class</b> <b>Label</b> ADR	8 Corrosive substances. 8
	
<b>Class</b> <b>Label</b> IMDG, IATA	8 (C3) Corrosive substances 8
	
<b>Class</b> <b>Label</b>	8 Corrosive substances. 8
<b>Packing group</b> DOT, ADR, IMDG, IATA	II
<b>Environmental hazards:</b> <b>Marine pollutant (IMDG):</b>	No
<b>Special precautions for user</b> <b>Danger code (Kemler):</b> <b>EMS Number:</b> <b>Segregation groups</b>	Warning: Corrosive substances 80 F-A,S-B Acids
<b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
<b>Transport/Additional information:</b> DOT	
<b>Marine Pollutant (DOT):</b>	No
<b>UN "Model Regulation":</b>	UN3265, CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (HYDROGEN BROMIDE, Acetic acid, glacial), 8, II

## 15 Regulatory information

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

### National regulations

All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.

All components of this product are listed on the Canadian Domestic Substances List (DSL).

### SARA Section 313 (specific toxic chemical listings)

64-19-7	acetic acid	67.0%
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### Information about limitation of use:

For use only by technically qualified individuals.

This product is subject to the reporting requirements of section 313 of the Emergency Planning and Community Right to Know Act of 1986 and 40CFR372.

### Other regulations, limitations and prohibitive regulations

### Substances of very high concern (SVHC) according to REACH, Article 57

None of the ingredients are listed.

### REACH - Pre-registered substances

All ingredients are listed.

**Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 16 Other information:

The above information is believed to be correct but does not purport to be complete and should be used only as a guide. The burden of safe use of this material rests entirely with the user.

04/11/2014