



## MATERIAL SAFETY DATA SHEET - SDS / MSDS

**1-Bromohexane**

**CAS No: 111-25-1**

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

**1.1 Product identifiers**

**Product Name :** 1-Bromohexane

**CAS No. :** 111-25-1

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

**Identified uses :** Laboratory chemicals, Industrial & for professional use only

**1.3 Details of the supplier of the safety data sheet**

**Company :** Krishna Solvechem Ltd.  
Corp. Off.: B/503, Shayog, S. V. Road,  
Kandivali (West), Mumbai – 400067. India.

**Telephone :** +91-22-6123 0222

**Email :** atul@kscl.co.in

**1.4 Emergency telephone number**

**Emergency Phone :** +91-22-6123 0222 (9.00am – 6.00pm) [Office hours]

### SECTION 2: Hazards identification

**2.1 Emergency overview**

**OSHA Hazards**

Combustible liquid, Target organ Effect, Irritant

**Target Organs:** kidney, liver

**GHS Classification:**

Flammable liquids (Category 3)

Skin irritation (Category 2)

Eye irritation (Category 2A)

Specific target organ toxicity – single exposure (Category 3)

Acute aquatic toxicity (Category 2)

**2.2 Label elements**

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

**Pictogram :**



**Signal word**

Warning



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### Hazard statement (s)

<b>H226</b>	Flammable liquid and vapour
<b>H315</b>	Causes skin irritation
<b>H319</b>	Causes serious eye irritation
<b>H335</b>	May cause respiratory irritation
<b>H401</b>	Toxic to aquatic life

### Precautionary

#### statement (s) P261

Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

#### P305 + P351 + P338

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

### HMIS Classification

<b>Health Hazard</b>	2
<b>Chronic health Hazard</b>	*
<b>Flammability</b>	2
<b>Physical Hazards</b>	0

### NFPA Rating

<b>Health Hazard</b>	2
<b>Fire</b>	2
<b>Reactivity Hazard</b>	0

### Potential health effects

<b>Inhalation</b>	May be harmful if inhaled. Causes respiratory tract irritation.
<b>Skin</b>	May be harmful if absorbed through skin. Causes skin irritation.
<b>Eyes</b>	Causes eye irritation.
<b>ingestion</b>	May be harmful if swallowed.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

<b>Synonyms :</b>	hexyl bromide
<b>Formula :</b>	C6H13Br
<b>Molecular weight :</b>	165.07 g/mol
<b>CAS-No. :</b>	111-25-1
<b>EC-No. :</b>	203-850-2
<b>CAS-No. :</b>	609-65-4
<b>EC-No. :</b>	210-194-0



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### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

- General advice :** Consult a physician. Show this safety data sheet to the doctor in attendance.
- If inhaled :** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
- In case of skin contact :** Wash off with soap and plenty of water. Consult a physician.
- In case of eye contact :** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
- If swallowed :** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

**Suitable extinguishing media :** For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

**5.2 Special hazards arising from the substance or mixture :** Carbon oxides, Hydrogen bromide gas.

**5.3 Advice for firefighters :** Wear self-contained breathing apparatus for firefighting if necessary.

**5.4 Further information :** Use water spray to cool unopened containers

### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

#### 6.2 Environmental precautions

Do not let product enter drains. Discharge into the environment must be avoided.

#### 6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or



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by wet-brushing and place in container for disposal according to local regulations (see section 13).

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

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

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Containers which are opened must be carefully resealed and kept upright to prevent leakage.

### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

#### 8.2 Exposure controls

Contains no substances with occupational exposure limit values.

#### Personal protective equipment -

##### Eye / Face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

##### Skin and Body protection

Impervious clothing, flame retardant antistatic protective clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

##### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).



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### Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

#### Immersion protection

Material: fluorinated rubber

Minimum layer thickness : 0.7 mm

Break through time : >480 min

Material tested: Vitoject® (Aldrich Z677698, Size M)

#### Splash protection

Material: fluorinated rubber

Minimum layer thickness : 0.7 mm

Break through time : >30 min

Material tested: Vitoject® (Aldrich Z677698, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 873000, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an Industrial Hygienist familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

### Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at end of workday.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

a) Appearance	Form: clear, liquid Colour: light yellow
b) Odour	No data available
c) Odour Threshold	No data available
d) pH	No data available
e) Melting point / freezing point	Melting point/range: -85 °C (-121 °F) - lit.
f) Initial boiling point and boiling range	154 - 158 °C (309 - 316 °F) - lit.



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<b>g) Flash point</b>	57 °C (135 °F) - closed cup
<b>h) Evaporation rate</b>	No data available
<b>i) Flammability (solid, gas)</b>	No data available
<b>j) Upper/lower flammability or explosive limits</b>	No data available
<b>k) Vapour pressure</b>	No data available
<b>l) Vapour density</b>	1.176 g/mL at 25 °C (77 °F)
<b>m) Relative vapour density</b>	5.7 – Air( = 1.0)
<b>n) Water solubility</b>	No data available
<b>o) Partition coefficient: n octanol/water</b>	No data available

### SECTION 10: Stability and Reactivity

<b>10.1 Reactivity :</b>	No data available
<b>10.2 Chemical stability :</b>	Stable under recommended storage conditions
<b>10.3 Possibility of hazardous reactions :</b>	No data available
<b>10.4 Conditions to avoid :</b>	Heat, flames and sparks
<b>10.5 Incompatible materials:</b>	Strong bases, strong Oxidizing agents
<b>10.6 Hazardous decomposition products :</b>	Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen bromide gas Other decomposition products - No data available

### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

<b>Acute toxicity:</b>	LD50 Oral – no data available LC50 Inhalation – no data available LD50 Dermal – no data available LD50 Intraperitoneal - mouse - 1,226 mg/kg
<b>Skin corrosion / irritation :</b>	No data available
<b>Serious eye damage/eye irritation :</b>	No data available



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<b>Respiratory or skin sensitization :</b>	No data available
<b>Germ cell mutagenicity:</b>	No data available
<b>Carcinogenicity :</b>	IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH. NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
<b>Reproductive toxicity:</b>	No data available
<b>Specific target organ toxicity - single exposure :</b>	Inhalation - May cause respiratory irritation.
<b>Specific target organ toxicity - repeated exposure :</b>	No data available
<b>Aspiration hazard :</b>	No data available
<b>Additional Information:</b>	RTECS: MO0925000

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

## SECTION 12: Ecological information

<b>12.1 Toxicity</b>	Toxicity to fish: LC50 - Pimephales promelas (fathead minnow) - 3.45 mg/l - 96 h
<b>12.2 Persistence and degradability</b>	
<b>Biodegradability</b>	No data available
<b>12.3 Bioaccumulative potential :</b>	No data available
<b>12.4 Mobility in soil :</b>	No data available
<b>12.5 Results of PBT and vPvB assessment</b>	No data available



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- 12.6 Other adverse effects :** An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
- Toxic to aquatic life.
- no data available

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

- Product :** Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.
- Contaminated packaging:** Dispose of as unused product.

### SECTION 14: Transport information

- 14.1 UN number :** ADR/RID: 1993  
IMDG: 1993  
IATA: 1993
- 14.2 UN proper shipping name**
- ADR/RID :** FLAMMABLE LIQUID, N.O.S.  
**IMDG :** FLAMMABLE LIQUID, N.O.S.  
**IATA :** Flammable liquid, n.o.s.
- 14.3 Transport hazard class(es)** ADR/RID: 3                      IMDG: 3                      IATA: 3
- 14.4 Packaging group:** ADR/RID: III                      IMDG: III                      IATA: III
- 14.5 Environmental hazards:** ADR/RID: no                      IMDG Marine pollutant: no                      IATA: no
- 14.6 Special precautions for user :** No data available





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### SECTION 15: Regulatory information

#### 15.1 OSHA Hazards

Combustible Liquid, Target Organ Effect, Irritant

#### SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

#### SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

#### SARA 311/312 Hazards

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

### SECTION 16: Other information

#### 16.1 Further information:

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. Krishna Solvechem Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.kscl.co.in](http://www.kscl.co.in) for additional terms and conditions of sale.