



## MATERIAL SAFETY DATA SHEET (MSDS)

### SECTION 1: Identification

#### 1.1 Product identifiers

Product Name : 4-Nitrobenzyl bromide

Product No.: N13054

CAS No. : 100-11-8

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

Recommended uses : Laboratory chemicals

Uses advised against: Food, drug, pesticide or biocidal product use.

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

Company : Krishna Solvechem Limited.  
B/503, Sahayog, S. V. Road,  
Kandivali (West), Mumbai – 400067. India.

Telephone : +91-22-6123 0222

Email : exports@kscl.co.in

#### 1.4 Emergency telephone number

Emergency Phone : +91-8657457330

### SECTION 2: Hazards identification

#### 2.1 Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin Corrosion/Irritation	(Category 1B)
Serious Eye Damage/Eye Irritation	(Category 1)
Specific target organ toxicity (single exposure)	(Category 3)
Target Organs - Respiratory system.	

#### 2.2 Label elements

Pictogram :



Signal word Danger

Hazard statement (s) Causes severe skin burns and eye damage.



**Precautionary statement (s)**

**Prevention**

May cause respiratory irritation

Wash face, hands and any exposed skin thoroughly after handling

Wear protective gloves/protective clothing/eye protection/face protection

Avoid breathing dust/fume/gas/mist/vapors/spray

Use only outdoors or in a well-ventilated area

**Inhalation :**

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing Call a POISON CENTER or doctor/physician if you feel unwell

**IF ON SKIN (or hair):**

If skin irritation occurs: Get medical advice/attention

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

Wash contaminated clothing before reuse

**Eyes:**

IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue

rinsing If eye irritation persists: Get medical advice/attention

**Ingestion:**

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

**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

**Other Hazards**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. Lachrymator.



### SECTION 3: Composition / information on ingredients

#### 3.1

Component	CAS-No	Weight %
$\alpha$ -Bromo-4-nitrotoluene	100-11-8	$\leq 100\%$

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

<b>General Advice:</b>	First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.
<b>If inhalation :</b>	After inhalation: fresh air. Call in physician
<b>In case of skin contact :</b>	Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.
<b>In case of eye contact :</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
<b>Ingestion :</b>	After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise.
<b>4.2 Most important symptoms and effects :</b>	The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11
<b>4.3 Notes to Physician :</b>	Treat symptomatically

### SECTION 5: Firefighting effects

#### 5.1 Extinguishing media

<b>Suitable extinguishing media</b>	Water foam Carbon dioxide (CO <sub>2</sub> ) Dry powder
<b>Unsuitable Extinguishing Media:</b>	For this substance/mixture no limitations of extinguishing agents are given
<b>5.2 Flash Point :</b>	>100 °C
<b>Method :</b>	No information available



<b>Autoignition Temperature:</b>	No information available
<b>Explosion Limits:</b>	
<b>Upper</b>	No data available
<b>Lower</b>	No data available
<b>Sensitivity to Mechanical Impact</b>	No information available
<b>Sensitivity to Static Discharge</b>	No information available
<b>Specific Hazards Arising from the Chemical :</b>	Combustible. Vapors are heavier than air and may spread along floors. Forms explosive mixtures with air on intense heating. Development of hazardous combustion gases or vapors possible in the event of fire.
<b>Hazardous Combustion Products :</b>	Carbon oxides, Nitrogen oxides, Hydrogen bromide gas
<b>5.4 Advice for Firefighters:</b>	Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.
<b>5.5 Further information:</b>	Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

### SECTION 6: Accidental release measures

<b>6.1 Personal precautions, protective equipment and emergency procedures</b>
Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.
<b>6.2 Environmental precautions</b>
Do not let product enter drains
<b>6.3 Methods and materials for containment and cleaning up</b>
Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

### SECTION 7: Handling and storage

<b>7.1 Precautions for safe handling</b>
For precautions see section 2.2



<b>7.2 Conditions for safe storage</b>	
Storage conditions :	Tightly closed. Dry.
Storage class :	Storage class(TRGS 510): 8A: Combustible, corrosive hazardous materials.

## SECTION 8: Exposure controls/personal protection

<b>8.1 Control Parameters</b>	
	Ingredients with workplace control parameters.

<b>8.2 Exposure controls</b>	
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<b>Personal protective equipment -</b>	
<b>Eye / Face protection</b>	
Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles	
<b>Skin protection and body protection</b>	
Wear appropriate protective gloves and clothing to prevent skin exposure.	
<b>Respiratory protection</b>	
required when dusts are generated.	
Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.	
Recommended Filter type: Filter type P2The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.	
These measures have to be properly documented.	
<b>Control of environmental exposure</b>	
Do not let product enter drains.	

## SECTION 9: Physical and chemical properties

<b>9.1 Information on basic physical and chemical properties</b>	
<b>a) Appearance</b>	Form: solid
<b>b) Odour</b>	No information available
<b>c) Odour Threshold</b>	No information available
<b>d) pH</b>	No information available
<b>e) Melting point / freezing point</b>	96 - 99 °C - lit
<b>f) Initial boiling point and</b>	90 - 92 °C / 194 - 197.6 °F @ 760 mmHg



<b>boiling range</b>	
<b>g) Flash point</b>	>100 °C
<b>h) Evaporation rate</b>	No information available
<b>i) Flammability (solid, gas)</b>	Not applicable
<b>j) Upper/lower flammability or explosive limits</b>	No data available No data available
<b>k) Vapour pressure</b>	No data available
<b>l) Vapour density</b>	No data available
<b>m) Specific Gravity</b>	No data available
<b>n) Solubility</b>	No data available
<b>o) Partition coefficient: n octanol/water</b>	No data available
<b>p) Auto-ignition temperature</b>	No information available
<b>q) Decomposition temperature</b>	No data available
<b>r) Viscosity</b>	No information available
<b>s) Molecular formula</b>	C7 H6 Br NO2
<b>t) Molecular Weight</b>	216.03 g/mol

## SECTION 10: Stability and Reactivity

<b>10.1 Reactive Hazard :</b>	Forms explosive mixtures with air on intense heating. A range from approx. 15 Kelvin below the flash point is to be Rated as critical. The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.
<b>10.2 Chemical stability :</b>	The product is chemically stable under standard ambient conditions (room temperature)
<b>10.3 Possibility of hazardous reactions :</b>	Violent reactions possible with : oxidizing agents, Bases, Alcohols, Amines
<b>10.4 Conditions to avoid :</b>	Avoid moisture. Strong heating.
<b>10.5 Incompatible materials:</b>	Mild steel
<b>10.6 Hazardous decomposition products :</b>	In the event of fire: See section 5



## SECTION 11: Toxicological information

### 11.1

#### Information on toxicological effects

##### Acute toxicity:

Symptoms: If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.

Symptoms: mucosal irritations, Cough, Shortness of breath, Possible damages:, damage of respiratory Tract

Dermal: No data available

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Irritation :** Causes serious eye damage

**Sensitization:** No information available

**Carcinogenicity :** No data available

**Mutagenic Effects:** No information available.

**Reproductive Effects:** No information available.

**Developmental Effects :** No information available.

**Teratogenicity:** No information available.

**STOT - single exposure :** Respiratory Irritation

**STOT - repeated exposure:** None known

**Aspiration hazard :** No information available.

### 11.2 Additional Information

#### Endocrine disrupting properties

##### Product : Assessment

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

RTECS: XS7967000

Cough, Shortness of breath, Headache, Nausea, Vomiting Quantitative data on the toxicity of this product are not available.

Further data:

Handle in accordance with good industrial hygiene and safety practice.



## SECTION 12: Ecological information

<b>12.1 Ecotoxicity:</b>	Do not empty into drains.
<b>12.2 Persistence and degradability:</b>	No data available
<b>Bioaccumulation/ Accumulation</b>	No information available
<b>12.3 Mobility:</b>	No data available
<b>12.4 Results of PBT and vPvB assessment</b>	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## SECTION 13: Disposal considerations

**13.1 Waste treatment methods:** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

## SECTION 14: Transport information

<b>14.1 UN number :</b>	ADR/RID: 3261 IMDG: 3261 IATA: 3261
<b>14.2 UN proper shipping name</b>	
<b>ADR/RID :</b>	CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S.
<b>IMDG :</b>	CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S.
<b>IATA :</b>	Corrosive solid, acidic, organic, n.o.s.
<b>14.3 Transport hazard class(es)</b>	ADR/RID: 8                      IMDG: 8                      IATA: 8
<b>14.4 Packaging group:</b>	ADR/RID: II                      IMDG: II                      IATA: II

## SECTION 15: Regulatory information

<b>15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture</b>	This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006. <b>Other regulations</b> Take note of Dir 94/33/EC on the protection of young people at work.
<b>15.2 Chemical safety Assessment</b>	For this product a chemical safety assessment was not carried out





## SECTION 16: Other information

<b>16.1 Prepared By:</b>	Regulatory affairs Krishna Solvechem Limited
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<b>Creation Date:</b>	23-Mar-2012
<b>Revision Date:</b>	19-Jan-2023
<b>Print Date:</b>	19-Jan-2023
<b>Revision Summary:</b>	This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 C F R 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

### 16.2 Disclaimer:

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 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.