

SAFETY DATA SHEET (SDS)

Product Name: Bromocyclobutane
Date Prepared: May18,2023

SDS number: HS/HDJX001-2023
Version: A/0

Section 1 - Product and Company Identification

Product name Bromocyclobutane
Applicant name Lanzhou Hong Sheng Fine Chemical Co., LTD
Application address Room 820, strategic emerging industry hatching base, Qinchuan Garden, Lanzhou new district, Lanzhou City, Gansu Province
Applicant post code ——
Applicant fax ——
Applicant emergency number +86-13194871973
Applicant email 37048462@qq.com
Manufacturer name Lanzhou Hong Sheng Fine Chemical Co., LTD
Manufacturer address Room 820, strategic emerging industry hatching base, Qinchuan Garden, Lanzhou new district, Lanzhou City, Gansu Province
Manufacturer post code ——
Manufacturer fax ——
Manufacturer emergency number +86-13194871973
Recommended and restricted USES Used for Pharmaceutical intermediate

Section 2 –Hazards Identification

Hazard class and label elements of the substance according to GHS(the ninth revised edition):

GHS hazard class

Physical hazard	Flammable liquids	Category 2	H225
Health hazard	Skin corrosion/irritation	Category 2	H315
	Severe eye injury/eye irritation	Category 2A	H319
	Specific target organ system toxicity (one contact) to respiratory tract stimulation	Category 3	H335

Pictogram



Signal

Danger

Hazard statements

H225 Highly flammable liquid and vapour
H315 Cause skin irritation.
H319 Causing severe eye irritation.
H335 May cause respiratory irritation.

Prevention

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.

SAFETY DATA SHEET (SDS)

Product Name: Bromocyclobutane

Date Prepared: May 18, 2023

P240 Ground and bond container and receiving equipment.
P241 Use explosion-proof [electrical/ventilating/lighting] equipment.
P242 Use non-sparking tools.
P243 Take action to prevent static discharges.
P261 Avoid inhaling dust/smoke/gas/smoke/steam/spray.
P264 Wash hands thoroughly after handling.
P271 Use only outdoors or in well-ventilated areas.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

Response

P303 + P361 + P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse affected areas with water [or shower].
P304 + P340 + P312 If inhaled: people will be moved to fresh air, keep breathing comfortable position. Call the Emergency Centre/doctor if you feel unwell.
P305 + P351 + P338 If entering the eye: rinse gently with water for a few minutes. If wearing contact lens and can be easily removed, remove contact lens. Keep Flushing.
P332 + P313 If skin irritation occurs: seek medical attention.
P337 + P313 If eye irritation is still present: seek medical advice/consult a doctor.
P370 + P378 In case of fire: use dry sand, dry powder or anti-alcohol foam to extinguish fire.

Storage

P403 + P233 Store in a well-ventilated place. Keep the container closed.
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.

Disposal

P501 Send the contents/containers to an approved waste treatment plant for disposal.

Section 3 – Composition/Information on Ingredients

Component	Concentration (%)	CAS No.	EC No.
Bromocyclobutane	<= 100 %	4399-47-7	/

Section 4 – First Aid Measures

After skin contact Rinse with soap and plenty of water. Consult a doctor.
After eye contact Rinse thoroughly with plenty of water for at least 15 minutes and consult a doctor.
After ingestion Do not induce vomiting. Never feed anything to an unconscious person. Gargle with water. Consult a doctor.
After inhalation If inhaled, move the patient to fresh air. If breathing stops, give artificial respiration. Consult a doctor

Section 5 – Fire Fighting Measures

Hazardous products of combustion Carbon oxides, hydrogen bromide
Extinguishing method Dry powder, dry sand
Special protective equipment If necessary, wear self-contained breathing apparatus for fire fighting operations. Spray water to cool the unopened container.

SAFETY DATA SHEET (SDS)

Product Name: Bromocyclobutane

Date Prepared: May 18, 2023

Section 6 – Accidental Release Measure

- Personal protective measures** Use the personal protective equipment. Avoid inhaling vapors, vapors, or gases. Ensure adequate ventilation. Eliminate all fire sources. Evacuate people to a safe area. Note that the vapor accumulates to an explosive concentration and can be stored in low-lying areas of the ground.
- Environmental protective measures** If safety can be ensured, measures can be taken to prevent further leakage or overflow. Don't let the product go down the drain.
- Methods for taking in and cleaning up** Containment spillage, absorbing spillage with non-combustible materials (e. g. Sand, Earth, diatomite, Vermiculite) , collecting it in containers and treating it according to local or national regulations.

Section 7 – Handling and Storage

- Safe handling** Avoid contact with skin and eyes. Avoid inhaling vapors or mist droplets..
- Fire and explosion protection measures:**
Keep away from the fire. - No fireworks. Take measures to prevent the accumulation of static electricity.
- Hygiene practices:**
Operate in accordance with good industrial hygiene and safety practices. Wash hands before rest and at the end of work.
- Storage** **Storage conditions:**
Keep the container closed and stored in a dry, ventilated place. Open containers must be carefully re-sealed and kept in a vertical position to prevent leakage.
- VCI storage grade:**
German storage grade (TRGS 510) : 3: flammable liquids

Section 8 – Exposure Controls/Personal Protection

- Engineering Controls** Operate in accordance with good industrial hygiene and safety practices. Wash hands before rest and at the end of work.
- Respiratory protection** If the hazard assessment indicates the use of an air-purifying gas mask, use a full-face mask multi-function gas mask (US) or Abek -ENB-EN 14387) gas mask cartridge as a backup for engineering control. If a gas mask is the only way to protect, use a full mask air supply gas mask. Respirators use respirators and components that have been tested and passed government standards such as NIOSH (US) or Cen (EU) .
- Hand Protection** Gloves and gloves must be checked before use. Remove gloves (do not touch the outer surface of the gloves) using appropriate methods to avoid any skin contact with the product. Please handle the contaminated gloves carefully in accordance with the relevant laws and regulations and effective laboratory procedures. Please Wash and dry your hands. The protective gloves selected must comply with the specifications given in regulation (EU)2016/425 and the EN 374 standard derived from it.
- Eye protection** For face masks and safety glasses, protect your eyes with equipment that has been tested and approved by an official standard such as NIOSH (USA) or EN 166(EU) .
- Flame retardant** Anti-seepage clothing, flame retardant anti-static protective clothing. The type of protective

SAFETY DATA SHEET (SDS)

Product Name: Bromocyclobutane

Date Prepared: May 18, 2023

anti-static protective clothing. equipment must be chosen according to the concentration and quantity of hazardous substances in a particular workplace.

Section 9 – Physical and Chemical Properties

Physical state: Transparent liquid	Color: Colorless
Odor: No data available	pH value: No data available
Melting point/freezing point(°C): No data available	Initial boiling point and boiling range(°C): 108 °C - lit.
Flash point(°C)(closed cup): 22° C - closed cup	Flammability: Flammable
Upper explosive limit%(V/V): No data available	Lower explosive limit%(V/V): No data available
Vapor pressure (hPa): No data available	Vapor density (g/mL): No data available
Relative density(/): No data available	Solubility: No data available
Octanol / water partition coefficient: No data available	Kinematic viscosity (mm²/s): No data available
Auto-ignition temperature(°C): No data available	Decomposition temperature(°C): No data available
Particle characteristics: No data available	

Section 10 – Stability and Reactivity

Reactive	No data available.
Chemical stability	Is stable under the recommended storage conditions
Possibility of hazardous reactions	No data available.
Avoid conditions	Heat, fire and Sparks
Incompatible materials	Strong oxidizer, strong alkali
Hazardous decomposition products	Carbon oxides, hydrogen bromide

Section 11 – Toxicological Information

Acute toxicity: transoral- No data available.

Skin corrosion/irritation: No data available.

Serious eye damage/eye irritation: No data available.

Respiratory or skin sensitization: No data available.

Germ cell mutagenicity: No data available.

Carcinogenicity: No data available.

Reproductive toxicity: No data available.

Specific target organ toxicity – single exposure: Inhalation-may cause respiratory irritation

Specific target organ toxicity – repeated exposure: No data available.

Aspiration hazard: No data available.

Section 12 – Ecological Information

Toxicity: No data available.

Persistence and degradability: No data available.

Bioaccumulative potential: No data available.

Mobility in soil: No data available.

Other adverse effects: No data available.

SAFETY DATA SHEET (SDS)

Product Name: Bromocyclobutane

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Section 13 – Disposal Considerations

Property of waste: No data available.

Methods of disposal:

Products

Give the remaining and non-recyclable solutions to a licensed company. Treat with combustion in a chemical incinerator equipped with afterburner and scrubbing equipment, especially when igniting, as the substance is highly flammable.

Contamination of packaging

Dispose of as unused product.

Precautions of disposal: Contact professional waste disposal department to handle waste.

Section 14 - Transport Information

UN number: 1933

UN proper shipping name: FLAMMABLE LIQUID, N.O.S. (Contains Bromocyclobutane)

Transportation primary hazard class: 3

Transportation secondary hazard class: /

Packing group: II

Hazard labeling:



Marine Pollutants (Yes/No): NO (《List of hazardous Marine pollution goods》)

Special precautions relating to transport or means of transport: The packing should be complete and the loading should be safe. During transportation, the container shall not leak, collapse, fall or be damaged. Transport vehicles and vessels must be thoroughly cleaned and disinfected, otherwise other articles may not be carried.

Section 15 - Regulatory Information

Regulatory Information: the following laws, regulations and standards provide for the safe use, storage, transport, handling, classification and labelling of chemicals:

List of chemicals	Is in the directory
List of hazardous chemicals under key supervision	-
List of highly toxic substances (2003 edition)	-
List of explosive-prone hazardous chemicals (2017 edition)	-
List of hazardous chemicals (2015 edition)	-
Classification and catalogue of Precursor Chemicals	-

Standard Series for classification and labelling of chemicals (GB 30000.2-2013-GB30000.29-2013)

Regulations on the Safety Administration of Dangerous Chemicals (order of the State Council No. 591)

SAFETY DATA SHEET (SDS)

Product Name: Bromocyclobutane

Date Prepared: May 18, 2023

Section 16 - Additional Information

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References: The SDS is prepared in accordance with 《Chemical Safety Technical Instructions the Contents and Sequence 》 (GB /T16483-2008) and 《 Guidance for Preparing Chemical Safety Technical Instructions 》 (GB_T 17519-2013). The GHS classification of chemicals in the SDS is based on the chemical classification and label specification series standard (GB 30000.2-2013 ~ GB30000.29-2013).

Disclaimer: The chemical registration center of the Ministry of Emergency Management has provided all the relevant information in this SDS, but we can not guarantee its absolute completeness and accuracy. This SDS only provides safety precautions for those who are properly trained to use the product. To obtain the individual users of this SDS, under special conditions of use, must make an independent judgment of the applicability of this SDS. Under special circumstances, the chemical registry shall not be liable for any injury caused by the use of this SDS.