



CONTACT : **LEONID CHEMICALS**  
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## MATERIAL SAFETY DATA SHEET

1-BROMOBUTANE

### SECTION 1- CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MSDS Name:  
1-BROMOBUTANE

Catalog Numbers:  
No information available.

Synonyms:  
Butane, 1-Bromo-; Butyl bromide normal; N-Butyl bromide

Company Information:  
LEONID CHEMICALS  
62/A-2 1st Stage, Yeshwanthpur Industrial Suburb  
Ashokpuram School Road  
Bangalore-560 022, Karnataka, INDIA  
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### SECTION 2- COMPOSITION, INFORMATION ON INGREDIENTS

CAS #	:	109-65-9
Chemical Name	:	Unlisted.
%	:	90 - 100%
EINECS#	:	Unlisted.
Hazard Symbols	:	Unlisted.
Risk Phrases	:	Unlisted.

### SECTION 3- HAZARDS IDENTIFICATION

#### EMERGENCY OVERVIEW

WARNING! FLAMMABLE LIQUID AND VAPOR. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. MAY BE HARMFUL IF SWALLOWED, INHALED OR ABSORBED THROUGH SKIN. MAY AFFECT LIVER, KIDNEYS AND CENTRAL NERVOUS SYSTEM..

Potential Health Effects  
Information on the human health effects from exposure to this substance is limited.

#### Inhalation:

Inhalation causes irritation of mucous membranes and upper respiratory tract. Symptoms may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting. High levels can cause dizziness and lightheadedness



**Ingestion:**

No information found, but compound should be handled as a potential health hazard. May cause irritation to the gastro-intestinal tract.

**Skin Contact:**

Causes irritation to skin. Symptoms include redness, itching, and pain. May be absorbed through the skin.

**Eye Contact:**

Causes irritation, redness, and pain.

**Chronic Exposure:**

Repeated exposure may cause liver and kidney damage.

**Aggravation of Pre-existing Conditions:**

No information available.

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#### SECTION 4 - FIRST AID MEASURES

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**Inhalation:**

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

**Ingestion:**

Give large amounts of water to drink. Never give anything by mouth to an unconscious person. Get medical attention.

**Skin Contact:**

In case of contact, immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Call a physician.

**Eye Contact:**

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

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#### SECTION 5 - FIRE FIGHTING MEASURES

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**Fire Extinguishing Media:**

Dry chemical, alcohol foam or carbon dioxide. Water may be ineffective.

**Special Information:**

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode. Water may be used to flush spills away from exposures and to dilute spills to non-flammable mixtures.

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## SECTION 6 - ACCIDENTAL RELEASE MEASURES

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Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Use non-sparking tools and equipment. Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer! If a leak or spill has not ignited, use water spray to disperse the vapors, to protect personnel attempting to stop leak, and to flush spills away from exposures.

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## SECTION 7 - HANDLING AND STORAGE

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Protect against physical damage. Store in a cool, dry well-ventilated location, away from any area where the fire hazard may be acute. Outside or detached storage is preferred. Separate from incompatibles. Containers should be bonded and grounded for transfers to avoid static sparks. Storage and use areas should be No Smoking areas. Use non-sparking type tools and equipment, including explosion proof ventilation. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.

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## SECTION 8 - Exposure Controls, Personal Protection

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### Ventilation System:

A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

### Personal Respirators (NIOSH Approved):

For conditions of use where exposure to the substance is apparent and engineering controls are not feasible, consult an industrial hygienist. For emergencies, or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator. **WARNING:** Air purifying respirators do not protect workers in oxygen-deficient atmospheres.

### Skin Protection:

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

### Eye Protection:

Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area

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## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

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Appearance	:	Colorless liquid.
Odor	:	No information available.
Solubility	:	Insoluble in water.
Specific Gravity	:	1.2686 @ 25C/4C
pH	:	No information available.
% Volatiles by volume @ 21C (70F)	:	100
Boiling Point	:	100 - 101C (212 - 214F)
Melting Point	:	-112C (-170F)
Vapor Density (Air=1)	:	4.72
Vapor Pressure (mm Hg)	:	No information available.
Evaporation Rate (BuAc=1)	:	No information available.
Molecular Weight	:	137.03
Chemical Formula	:	CH <sub>3</sub> (CH <sub>2</sub> ) <sub>2</sub> CH <sub>2</sub> Br

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## SECTION 10 - STABILITY AND REACTIVITY

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### Stability:

Stable under ordinary conditions of use and storage.

### Hazardous Decomposition Products:

Oxides of carbon as well as ionic or oxidized halogen.

### Hazardous Polymerization:

Will not occur.

### Incompatibilities:

Strong oxidizers and strong bases.

### Conditions to Avoid:

Heat, flames, ignition sources and incompatibles

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## SECTION 11 - TOXICOLOGICAL INFORMATION

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Investigated as a mutagen.

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## SECTION 12 - ECOLOGICAL INFORMATION

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No information available.

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## SECTION 13 -DISPOSAL CONSIDERATIONS

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Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

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## SECTION 14 - TRANSPORT INFORMATION

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### Domestic (Land, D.O.T.)

Proper Shipping Name : N-BUTYL BROMIDE  
Hazard Class : 3  
UN/NA : UN1126  
Packing Group : II  
Information reported for product/size : 250ML

### International (Water, I.M.O.)

Proper Shipping Name : 1-BROMOBUTANE  
Hazard Class : 3.2  
UN/NA : UN1126  
Packing Group : II  
Information reported for product/size : 250ML

### International (Air, I.C.A.O.)

Proper Shipping Name : 1-BROMOBUTANE  
Hazard Class : 3.2  
UN/NA : UN1126  
Packing Group : II  
Information reported for product/size : 250ML

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## SECTION 15 - REGULATORY INFORMATION

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### European/International Regulations European Labeling in Accordance with EC Directives

Hazard Symbols:  
No information available.

Risk Phrases:  
No information available.

Safety Phrases:  
No information available.

WGK (Water Danger/Protection)  
No information available.

United Kingdom Occupational Exposure Limits  
No information available.

United Kingdom Maximum Exposure Limits  
No information available.

Canada  
No information available.

Exposure Limits  
No information available.

US FEDERAL  
TSCA  
No information available.

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#### SECTION 16 -ADDITIONAL INFORMATION

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**Label Hazard Warning:**

WARNING! FLAMMABLE LIQUID AND VAPOR. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. MAY BE HARMFUL IF SWALLOWED, INHALED OR ABSORBED THROUGH SKIN. MAY AFFECT LIVER, KIDNEYS AND CENTRAL NERVOUS SYSTEM..

**Label Precautions:**

Keep away from heat, sparks and flame.  
Keep container closed.  
Use only with adequate ventilation.  
Avoid breathing vapor.  
Wash thoroughly after handling.  
Avoid contact with eyes, skin and clothing.

**Label First Aid:**

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. If swallowed, give large amounts of water to drink. Never give anything by mouth to an unconscious person. In all cases call a physician.

