



# SAFETY DATA SHEET

## 1. IDENTIFICATION OF THE SUBSTANCE OR MIXTURE AND OF THE SUPPLIER

**Product name:** Butylamine  
**Product code:** B0707  
**Company:** TCI (Shanghai) DEVELOPMENT CO., LTD.  
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**Revision number:** 1

## 2. HAZARDS IDENTIFICATION

### Classification of the GHS

#### PHYSICAL HAZARDS

Flammable liquids Category 2

#### HEALTH HAZARDS

Acute toxicity (Oral) Category 3  
 Acute toxicity (Dermal) Category 3  
 Skin corrosion/irritation Category 1B  
 Serious eye damage/eye irritation Category 1  
 Specific target organ toxicity  
 - Single exposure [Category 1] respiratory system  
 Specific target organ toxicity  
 - Repeated exposure [Category 1] respiratory system

#### ENVIRONMENTAL HAZARDS

Acute aquatic toxicity Category 3

### GHS label elements

#### Pictograms or hazard symbols



Signal word

Hazard statement

Danger

Highly flammable liquid and vapour  
 Toxic in contact with skin and if swallowed  
 Causes severe skin burns and eye damage  
 Causes damage to organs : respiratory system  
 Causes damage to organs through prolonged or exposure :  
 respiratory system  
 Harmful to aquatic life

### Precautionary statements [Prevention]

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
 Keep container tightly closed.  
 Use explosion-proof electrical/ventilating/lighting equipment. Take precautionary  
 measures against ignition by the static discharge and the spark.  
 Do not breathe.  
 Avoid release to the environment.  
 Do not eat, drink or smoke when using this product.  
 Wash hands thoroughly after handling.  
 Wear protective gloves and eye/face protection.

## 2. HAZARDS IDENTIFICATION

### [Response]

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth.

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

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

Remove/Take off immediately all contaminated clothing.

Wash contaminated clothing before reuse.

Immediately call a POISON CENTER or doctor/physician.

### [Storage]

Store in a well-ventilated place. Keep cool.

Store locked up.

### [Disposal]

Dispose of contents/container through a waste management company authorized by the local government

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

<b>Substance/mixture:</b>	Substance
<b>Component(s):</b>	Butylamine
<b>Percent:</b>	>99.0%(GC)
<b>CAS Number:</b>	109-73-9
<b>Synonyms:</b>	1-Aminobutane
<b>Chemical Formula:</b>	C <sub>4</sub> H <sub>11</sub> N

## 4. FIRST AID MEASURES

### Inhalation:

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

### Skin contact:

Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. Immediately call a POISON CENTER or doctor/physician.

### Eye contact:

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

### Ingestion:

Immediately call a POISON CENTER or doctor/physician. Rinse mouth.

### Symptoms/effects:

sore throat , cough, burning sensation, headache, vomiting, dizziness, shortness of breath, laboured breathing , pain, redness, blistering, burn, blurred vision

### Protection of first-aiders:

A rescuer should wear personal protective equipment, such as rubber gloves and air-tight goggles.

### Notes to physician:

Medical observation is indicated.

## 5. FIRE-FIGHTING MEASURES

### Suitable extinguishing media:

Dry chemical, foam, water in large amounts, carbon dioxide.

### Specific hazards:

Take care as it may decompose upon combustion or in high temperatures to generate poisonous fume.

### Specific methods:

Fire-extinguishing work is done from the windward and the suitable fire-extinguishing method according to the surrounding situation is used. Uninvolved persons should evacuate to a safe place. In case of fire in the surroundings: Keep containers cool by spraying with water. Eliminate all ignition sources if safe to do so.

### Special protective

### equipment for firefighters:

When extinguishing fire, be sure to wear personal protective equipment.

## 6. ACCIDENTAL RELEASE MEASURES

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

Use extra personal protective equipment (self-contained breathing apparatus). Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc.

### Environmental precautions:

Prevent product from entering drains.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Methods and materials for containment and cleaning up:</b>	Absorb spilled material in dry sand or inert absorbent before recovering it into an airtight container. In case of large amount of spillage, contain a spill by bunding. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.
<b>Prevention of secondary hazards:</b>	Remove all sources of ignition. Fire-extinguishing devices should be prepared in case of a fire. Use spark-proof tools and explosion-proof equipment.

## 7. HANDLING AND STORAGE

### Handling

<b>Technical measures:</b>	Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent generation of vapor or mist. Keep away from heat/sparks/open flame/hot surfaces. -No smoking. Take measures to prevent the build up of electrostatic charge. Use explosion-proof equipment. Wash hands and face thoroughly after handling. Use a closed system if possible. Use a ventilation, local exhaust if vapor or aerosol will be generated.
<b>Advice on safe handling:</b>	Avoid contact with skin, eyes and clothing.

### Storage

<b>Storage conditions:</b>	Keep container tightly closed. Store in a cool, dark and well-ventilated place. Store locked up. Store away from incompatible materials such as oxidizing agents.
<b>Packaging material:</b>	Law is followed.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

<b>Engineering controls:</b>	Install a closed system or local exhaust. Also install safety shower and eye bath.
<b>Exposure limits:</b>	
<b>ACGIH TLV(CL):</b>	5 ppm (skin)
<b>OSHA PEL(CL):</b>	5 ppm (skin)
<b>Personal protective equipment</b>	
<b>Respiratory protection:</b>	Half or full facepiece respirator, self-contained breathing apparatus(SCBA), supplied air respirator, etc. Use respirators approved under appropriate government standards and follow local and national regulations.
<b>Hand protection:</b>	Impervious gloves.
<b>Eye protection:</b>	Safety goggles. A face-shield, if the situation requires.
<b>Skin and body protection:</b>	Impervious protective clothing. Protective boots, if the situation requires.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state (20°C):</b>	Liquid
<b>Form:</b>	clear
<b>Color:</b>	Colorless
<b>Odor:</b>	Ammoniacal
<b>Odour threshold:</b>	1.8 ppm
<b>pH:</b>	12.6 (100g/L H <sub>2</sub> O 20°C)
<b>Melting point/freezing point:</b>	-49 °C
<b>Boiling Point/Range:</b>	77 °C
<b>Flash Point:</b>	-4°C
<b>Explosive limits</b>	
<b>Lower:</b>	1.7%
<b>Upper:</b>	9.8%
<b>Vapor Pressure:</b>	10.9kPa/20°C
<b>Vapor Density:</b>	2.5
<b>Density:</b>	0.74
<b>Solubility:</b>	Miscible with : Water Alcohol Ether
<b>log Pow =</b>	0.86
<b>Autoignition Temperature:</b>	312°C

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable under proper conditions.
<b>Reactivity:</b>	No special reactivity has been reported.
<b>Incompatible materials:</b>	oxidizing agents, strong acids, copper, aluminium, copper alloys
<b>Hazardous Decomposition Products:</b>	Carbon monoxide, Carbon dioxide, Nitrogen oxides (NOx)

## 11. TOXICOLOGICAL INFORMATION

<b>Acute Toxicity:</b>	ihl-rat LCLo:4000 ppm/4H orl-mus LD50:430 mg/kg orl-rat LD50:366 mg/kg skn-rbt LD50:850 uL/kg
<b>Skin corrosion/irritation:</b>	skn-rbt 500 mg open SEV
<b>Serious eye damage/irritation:</b>	eye-rbt 250 ug/24H SEV
<b>Germ cell mutagenicity:</b>	cyt-rat-orl 110 mg/kg
<b>Carcinogenicity:</b>	ipr-mus TDLo:800 mg/kg
<b>IARC =</b>	No data available
<b>NTP =</b>	No data available
<b>Reproductive toxicity:</b>	No data available
<b>RTECS Number:</b>	EO2975000

## 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity:</b>	
<b>Fish:</b>	No data available
<b>Crustacea:</b>	No data available
<b>Algae:</b>	No data available
<b>Persistence / degradability:</b>	66% (NO <sub>2</sub> ), 85% (NH <sub>3</sub> ) (by BOD), 100% (by HPLC), 98% (by TOC)
<b>Bioaccumulative potential(BCF):</b>	3.2
<b>Mobility in soil</b>	
<b>log Pow:</b>	0.86
<b>Soil adsorption (Koc):</b>	No data available
<b>Henry's Law constant(PaM<sup>3</sup>/mol):</b>	No data available

## 13. DISPOSAL CONSIDERATIONS

Recycle to process, if possible. Consult your local regional authorities. You may be able to burn in a chemical incinerator equipped with an afterburner and scrubber system but exert extra care in igniting as this material is highly flammable. Observe all federal, state and local regulations when disposing of the substance

## 14. TRANSPORT INFORMATION

<b>Hazards Class:</b>	3: Flammable liquid.
<b>Subsidiary risk:</b>	8: Corrosive.
<b>UN-No:</b>	1125
<b>Proper shipping name:</b>	n-Butylamine
<b>Packing group:</b>	II

## 15. REGULATORY INFORMATION

**Safe management ordinance of dangerous chemical product (State Council announces on January 26, 2002):** Safe use and production, the storage of a dangerous chemical, transport, loading and unloading were prescribed.

**The list of a dangerous chemical(2002)/CN-No.:** 32172

## 16. OTHER INFORMATION

**The reference company name of written contents**

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## 16. OTHER INFORMATION

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