

## Chemical Safety Data Sheet MSDS / SDS

## sec-Butylamine

Revision Date:2025-02-01 Revision Number:1

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

## Product identifier

Product name : sec-Butylamine  
CBnumber : CB6853095  
CAS : 13952-84-6  
EINECS Number : 237-732-7  
Synonyms : sec-Butylamine,SBA

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

Relevant identified uses : For R&D use only. Not for medicinal, household or other use.  
Uses advised against : none

## Company Identification

Company : Chemicalbook  
Address : Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing  
Telephone : 400-158-6606

## SECTION 2: Hazards identification

## GHS Label elements, including precautionary statements

Symbol(GHS)



Signal word

Danger

## Precautionary statements

P405 Store locked up.

P310 Immediately call a POISON CENTER or doctor/physician.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.  
Continuerinsing.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off Immediately all contaminated clothing. Rinse SKIN with water/shower.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P273 Avoid release to the environment.

P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.

## Hazard statements

H410 Very toxic to aquatic life with long lasting effects

H400 Very toxic to aquatic life

H332 Harmful if inhaled

H318 Causes serious eye damage

H314 Causes severe skin burns and eye damage

H302 Harmful if swallowed

H301 Toxic if swallowed

H225 Highly Flammable liquid and vapour

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## SECTION 3: Composition/information on ingredients

### Substance

|              |                      |
|--------------|----------------------|
| Product name | : sec-Butylamine     |
| Synonyms     | : sec-Butylamine,SBA |
| CAS          | : 13952-84-6         |
| EC number    | : 237-732-7          |
| MF           | : C4H11N             |
| MW           | : 73.14              |

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## SECTION 4: First aid measures

### Description of first aid measures

#### General advice

First aiders need to protect themselves. Show this material safety data sheet to the doctor

#### If inhaled

After inhalation: fresh air. Call in physician.

#### In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

#### In case of eye contact

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

#### If swallowed

After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise.

### Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

### Indication of any immediate medical attention and special treatment needed

No data available

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## SECTION 5: Firefighting measures

## Extinguishing media

### Suitable extinguishing media

Carbon dioxide (CO<sub>2</sub>) Foam Dry powder

### Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

## Special hazards arising from the substance or mixture

Carbon oxides Nitrogen oxides (NO<sub>x</sub>) Combustible.

Pay attention to flashback.

Vapors are heavier than air and may spread along floors.

Development of hazardous combustion gases or vapours possible in the event of fire. Forms explosive mixtures with air at ambient temperatures.

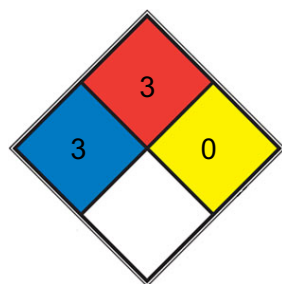
## Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

## Further information

Remove container from danger zone and cool with water. Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

## NFPA 704



**HEALTH 3** Short exposure could cause serious temporary or moderate residual injury (e.g. [liquid hydrogen](#), [sulfuric acid](#), [calcium hypochlorite](#), hexafluorosilicic acid)

**FIRE 3** Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions . Liquids having a flash point below 22.8 °C (73 °F) and having a boiling point at or above 37.8 °C (100 °F) or having a flash point between 22.8 and 37.8 °C (73 and 100 °F). (e.g. gasoline, [acetone](#))

**REACT 0** Normally stable, even under fire exposure conditions, and is not reactive with water (e.g. helium, [N<sub>2</sub>](#))

**SPEC.**

**HAZ.**

## SECTION 6: Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away

from heat and sources of ignition.

Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

### **Environmental precautions**

Do not let product enter drains. Risk of explosion.

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

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent material (e.g. Chemisorb? ). Dispose of properly. Clean up affected area.

### **Reference to other sections**

For disposal see section 13.

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## **SECTION 7: Handling and storage**

### **Precautions for safe handling**

#### **Advice on safe handling**

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

#### **Advice on protection against fire and explosion**

Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.

#### **Hygiene measures**

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.2.

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

#### **Storage conditions**

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition.

Light sensitive.

#### **Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

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## **SECTION 8: Exposure controls/personal protection**

### **control parameter**

#### **Hazard composition and occupational exposure limits**

Does not contain substances with occupational exposure limits.

#### **Exposure controls**

#### **Personal protective equipment**

### Eye/face protection

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

### Skin protection

This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

Splash contact Material: Viton?

Minimum layer thickness: 0,7 mm Break through time: 60 min

Material tested: Vitoject? (KCL 890 / Aldrich Z677698, Size M)

### Body Protection

Flame retardant antistatic protective clothing.

### Respiratory protection

required when vapours/aerosols 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 AX

The 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.

### Control of environmental exposure

Do not let product enter drains. Risk of explosion.

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## SECTION 9: Physical and chemical properties

### Information on basic physicochemical properties

|                                              |                                                                 |
|----------------------------------------------|-----------------------------------------------------------------|
| Appearance                                   | liquid                                                          |
| Odour                                        | No data available                                               |
| Odour Threshold                              | 0.17ppm                                                         |
| pH                                           | No data available                                               |
| Melting point/freezing point                 | Melting point/range: -72 °C - lit.                              |
| Initial boiling point and boiling range      | 63 °C - lit.                                                    |
| Flash point                                  | -20 °C - DIN 51755 Part 1                                       |
| Evaporation rate                             | No data available                                               |
| Flammability (solid, gas)                    | No data available                                               |
| Upper/lower flammability or explosive limits | Upper explosion limit: 9,0 %(V) Lower explosion limit: 1,8 %(V) |
| Vapour pressure                              | No data available                                               |
| Vapour density                               | No data available                                               |
| Relative density                             | 0.723 (20/4 °C)                                                 |
| Water solubility                             | 112g/l                                                          |
| Partition coefficient: n-octanol/water       | No data available                                               |

|                           |                                                                               |
|---------------------------|-------------------------------------------------------------------------------|
| Autoignition temperature  | No data available                                                             |
| Decomposition temperature | No data available                                                             |
| Viscosity                 | Viscosity, kinematic: No data available Viscosity, dynamic: No data available |
| Explosive properties      | No data available                                                             |
| Oxidizing properties      | No data available                                                             |

### Other safety information

No data available

## SECTION 10: Stability and reactivity

### Reactivity

Vapors may form explosive mixture with air.

### Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

### Possibility of hazardous reactions

Caution! In contact with nitrites, nitrates, nitrous acid possible liberation of nitrosamines! Violent reactions possible with:

Strong oxidizing agents perchlorates

peroxi compounds nitrites

Alcohols anhydrides

Acid anhydrides sodium hypochlorite

organic nitro compounds nitrosyl compounds acids

Risk of explosion with:

nitrates

### Conditions to avoid

Light. Warming.

### Incompatible materials

various plastics, various alloys

### Hazardous decomposition products

In the event of fire: see section 5

## SECTION 11: Toxicological information

### Information on toxicological effects

#### Acute toxicity

absorption

Symptoms: mucosal irritations, Cough, Shortness of breath, Possible damages:., damage of respiratory tract, Inhalation may lead to the

formation of oedemas in the respiratory tract., Symptoms may be delayed. Inhalation: absorption

LD50 Dermal - Rabbit - 2.500 mg/kg Remarks: (RTECS)

Dermal: absorption

#### **Skin corrosion/irritation**

Skin - Rabbit

Result: Causes burns. Remarks: (External MSDS)

#### **Serious eye damage/eye irritation**

Eyes - Rabbit

Result: Causes burns. Remarks: (External MSDS) Causes serious eye damage.

#### **Respiratory or skin sensitization**

#### **Germ cell mutagenicity**

Test Type: Ames test Result: negative

Remarks: (National Toxicology Program)

#### **Carcinogenicity**

No data available

#### **Reproductive toxicity**

**Specific target organ toxicity - single exposure Specific target organ toxicity - repeated exposure Aspiration hazard**

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## SECTION 12: Ecological information

### **Toxicity**

#### **Toxicity to fish**

LC50 - Leuciscus idus (Golden orfe) - 46 - 68 mg/l - 96 h Remarks: (External MSDS)

Toxicity to daphnia EC50 - Daphnia - 37,9 mg/l - 48 h

and other aquatic invertebrates

Remarks: (External MSDS)

#### **Toxicity to algae**

IC50 - Desmodesmus subspicatus (green algae) - 0,54 mg/l - 72 h Remarks: (External MSDS)

#### **Toxicity to bacteria**

EC10 - activated sludge - 1.995 mg/l - 30 min

Remarks: (External MSDS)

### **Persistence and degradability**

Biodegradability Result: 75 % - Readily biodegradable.

(OECD Test Guideline 301F)

### **Bioaccumulative potential**

### **Mobility in soil**

## Results of PBT and vPvB assessment

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.

## Toxics Screening Level

The initial threshold screening level (ITSL) for sec-butylamine is 5 µg/m<sup>3</sup> based on an annual averaging time.

## Other adverse effects

Discharge into the environment must be avoided.

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# SECTION 13: Disposal considerations

## Waste treatment methods

### Incompatibilities

Incompatible with organic anhydrides; isocyanates, vinyl acetate; acrylates, substituted allyls; alkylene oxides; epichlorohydrin, ketones, aldehydes, alcohols, glycols, phenols, cresols, caprolactum solution. Attacks some metals in presence of moisture.

## Product

See [www.retrologistik.com](http://www.retrologistik.com) for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

## Waste Disposal

Use a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. All federal, state, and local environmental regulations must be observed.

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# SECTION 14: Transport information

## UN number

ADR/RID: 3286 IMDG: 3286 IATA: 3286

## UN proper shipping name

ADR/RID: FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S. (sec.-butylamine) IMDG: FLAMMABLE LIQUID, TOXIC, CORROSIVE, N.O.S. (sec.-butylamine)

IATA: Flammable liquid, toxic, corrosive, n.o.s. (sec.-butylamine)

## Transport hazard class(es)

ADR/RID: 3 (6.1, 8) IMDG: 3 (6.1, 8) IATA: 3 (6.1)(8)

## Packaging group

ADR/RID: II IMDG: II IATA: II

## Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

## Special precautions for user

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## SECTION 15: Regulatory information

### Safety, health and environmental regulations/legislation specific for the substance or mixture

#### Regulations on the Safety Management of Hazardous Chemicals

China Catalog of Hazardous chemicals 2015: Listed. website: <https://www.mem.gov.cn/>

#### Measures for Environmental Management of New Chemical Substances

European Inventory of Existing Commercial Chemical Substances (EINECS): Listed. website: <https://echa.europa.eu/>

United States Toxic Substances Control Act (TSCA) Inventory: Listed. website: <https://www.epa.gov/>

EC Inventory: Listed.

New Zealand Inventory of Chemicals (NZIoC): Listed. website: <https://www.epa.govt.nz/>

Vietnam National Chemical Inventory: Listed. website: <https://chemicaldata.gov.vn/>

Philippines Inventory of Chemicals and Chemical Substances (PICCS): Listed. website: <https://emb.gov.ph/>

Chinese Chemical Inventory of Existing Chemical Substances (China IECSC): Listed. website: <https://www.mee.gov.cn/>

Korea Existing Chemicals List (KECL): Listed. website: <http://ncis.nier.go.kr>

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## SECTION 16: Other information

### Abbreviations and acronyms

CAS: Chemical Abstracts Service

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

IMDG: International Maritime Dangerous Goods

IATA: International Air Transportation Association

TWA: Time Weighted Average

STEL: Short term exposure limit

LC50: Lethal Concentration 50%

LD50: Lethal Dose 50%

EC50: Effective Concentration 50%

### References

**[1]** CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>

**[2]** ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>

**[3]** ECHA - European Chemicals Agency, website: <https://echa.europa.eu/>

**[4]** eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website:

[http://www.echemportal.org/echemportal/index?pageID=0&request\\_locale=en](http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en)

**[5]** ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: <http://www.phmsa.dot.gov/hazmat/library/erg>

**[6]** Germany GESTIS-database on hazard substance, website: <http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp>

**[7]** HSDB - Hazardous Substances Data Bank, website: <https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>

**[8]** IARC - International Agency for Research on Cancer, website: <http://www.iarc.fr/>

**[9]** IPCS - The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>

【10】Sigma-Aldrich, website: <https://www.sigmaaldrich.com/>

**Disclaimer:**

The information in this MSDS is only applicable to the specified product, unless otherwise specified, it is not applicable to the mixture of this product and other substances. This MSDS only provides information on the safety of the product for those who have received the appropriate professional training for the user of the product. Users of this MSDS must make independent judgments on the applicability of this SDS. The authors of this MSDS will not be held responsible for any harm caused by the use of this MSDS.