

## Chemical Safety Data Sheet MSDS / SDS

## Butyl propionate

Revision Date:2025-01-25 Revision Number:1

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

## Product identifier

Product name : Butyl propionate  
CBnumber : CB9171282  
CAS : 590-01-2  
EINECS Number : 209-669-5  
Synonyms : butyl propanoate,BUTYL PROPIONATE

## 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

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.

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

P241 Use explosion-proof electrical/ventilating/lighting/.../equipment.

P240 Ground/bond container and receiving equipment.

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

## Hazard statements

H318 Causes serious eye damage

H315 Causes skin irritation

H303 May be harmful if swallowed

H226 Flammable liquid and vapour

---

## SECTION 3: Composition/information on ingredients

### Substance

|              |                                      |
|--------------|--------------------------------------|
| Product name | : Butyl propionate                   |
| Synonyms     | : butyl propanoate, BUTYL PROPIONATE |
| CAS          | : 590-01-2                           |
| EC number    | : 209-669-5                          |
| MF           | : C7H14O2                            |
| MW           | : 130.18                             |

---

## SECTION 4: First aid measures

### Description of first aid measures

#### General advice

Consult a physician. Show this material safety data sheet to the doctor in attendance.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

#### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

#### If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

### 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

---

## SECTION 5: Firefighting measures

### Extinguishing media

#### Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### Special hazards arising from the substance or mixture

Carbon oxides

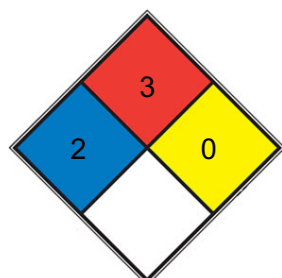
## Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

## Further information

Use water spray to cool unopened containers.

## NFPA 704



HEALTH 2 Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury (e.g. [diethyl ether](#), ammonium phosphate, iodine)

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, [N2](#))

SPEC.

HAZ.

---

## SECTION 6: Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition.

Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

For personal protection see section 8.

### Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

### Methods and materials for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

### Reference to other sections

For disposal see section 13.

---

## SECTION 7: Handling and storage

## Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

For precautions see section 2.2.

## Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

## Specific end use(s)

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

---

# SECTION 8: Exposure controls/personal protection

## control parameter

### Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

## Exposure controls

### Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

### Personal protective equipment

#### Eye/face protection

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Full contact

Material: butyl-rubber

Minimum layer thickness: 0,3 mm Break through time: 480 min

Material tested: Butoject? (KCL 897 / Aldrich Z677647, Size M)

Splash contact

Material: Nature latex/chloroprene Minimum layer thickness: 0,6 mm Break through time: 30 min

Material tested: Lapren? (KCL 706 / Aldrich Z677558, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the EC approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

#### Body Protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing., The type of protective equipment must be selected

according to the concentration and amount of the dangerous substance at the specific workplace.

#### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

---

## SECTION 9: Physical and chemical properties

### Information on basic physicochemical properties

|  |                                  |
|--|----------------------------------|
| Appearance                                   | colorless liquid                 |
| Odour  | No data available                |
| Odour Threshold                              | 0.036ppm                         |
| pH   | No data available                |
| Melting point/freezing point                 | -75 °C                           |
| Initial boiling point and boiling range      | 145 °C at 1.008 hPa - lit.       |
| Flash point                                  | 38 °C - closed cup               |
| Evaporation rate                             | No data available                |
| Flammability (solid, gas)                    | No data available                |
| Upper/lower flammability or explosive limits | No data available                |
| Vapour pressure                              | No data available                |
| Vapour density                               | 4.5 (vs air)                     |
| Relative density                             | 0,875 g/cm <sup>3</sup> at 25 °C |
| Water solubility                             | 1.5g/l                           |
| Partition coefficient: n-octanol/water       | No data available                |
| Autoignition temperature                     | No data available                |
| Decomposition temperature                    | No data available                |
| Viscosity                                    | 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

No data available

## Chemical stability

Stable under recommended storage conditions.

## Possibility of hazardous reactions

No data available

## Conditions to avoid

Heat, flames and sparks.

## Incompatible materials

Strong oxidizing agents, Strong bases

## Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides Other decomposition products - No data available

In the event of fire: see section 5

---

# SECTION 11: Toxicological information

## Information on toxicological effects

### Acute toxicity

LD50 Oral - Rat - > 5.000 mg/kg

Remarks: (External MSDS)

LC50 Inhalation - Rat - 4 h - > 30,8 mg/l Remarks: (RTECS)

LD50 Dermal - Rabbit - > 5.000 mg/kg Remarks: (External MSDS)

### Skin corrosion/irritation

Skin - Rabbit

Result: slight irritation Remarks: (RTECS)

Possible damages: Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.

### Serious eye damage/eye irritation Respiratory or skin sensitization

Patch test: - Human

Result: negative

Remarks: (External MSDS)

IARC: No ingredient of this product present at levels greater than or equal to 0.1% is

identified as probable, possible or confirmed human carcinogen by IARC.

### Reproductive toxicity

#### Specific target organ toxicity - single exposure

Acute oral toxicity - Risk of aspiration upon vomiting., Aspiration may cause pulmonary edema and pneumonitis.

Acute inhalation toxicity - Irritation symptoms in the respiratory tract., Cough, Shortness of breath

#### Specific target organ toxicity - repeated exposure Aspiration hazard

### Additional Information

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

After absorption of large quantities:

Systemic effects:

Discomfort, Dizziness, Nausea, respiratory paralysis, narcosis, cardiac arrest Damage to:

Kidney, Liver Further data:

Handle in accordance with good industrial hygiene and safety practice.

---

## SECTION 12: Ecological information

### **Toxicity**

### **Persistence and degradability**

### **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 n-butyl propionate is 102 µg/m<sup>3</sup> (annual averaging time).

### **Other adverse effects**

Discharge into the environment must be avoided.

---

## SECTION 13: Disposal considerations

### **Waste treatment methods**

### **Product**

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable.

Offer surplus and non-recyclable solutions to a licensed disposal company.

### **Incompatibilities**

Vapor may form explosive mixture with air. Incompatible with oxidizers (chlorates, nitrates, peroxides, permanganates, perchlorates, chlorine, bromine, fluorine, etc.); contact may cause fires or explosions. Keep away from alkaline materials, strong bases, strong acids, oxoacids, epoxides. May accumulate static electrical charges and cause ignition of its vapors.

### **Waste Disposal**

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.

### **Contaminated packaging**

Dispose of as unused product.

---

## SECTION 14: Transport information

### UN number

ADR/RID: 1914 IMDG: 1914 IATA: 1914

### UN proper shipping name

ADR/RID: BUTYL PROPIONATES IMDG: BUTYL PROPIONATES

IATA: Butyl propionates

|      |  |           |
|------|--|-----------|
| 14.3 | Transport hazard class(es)<br>ADR/RID: 3 IMDG: 3               | IATA: 3   |
| 14.4 | Packaging group<br>ADR/RID: III IMDG: III                      | IATA: III |
| 14.5 | Environmental hazards<br>ADR/RID: no IMDG Marine pollutant: no | IATA: no  |
| 14.6 | Special precautions for user<br>No data available              |           |

---

## 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

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

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

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

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

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

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

EC Inventory:Listed.

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

---

## SECTION 16: Other information

### Abbreviations and acronyms

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

CAS: Chemical Abstracts Service

EC50: Effective Concentration 50%

IATA: International Air Transportation Association

IMDG: International Maritime Dangerous Goods

LC50: Lethal Concentration 50%



LD50: Lethal Dose 50%

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

STEL: Short term exposure limit

TWA: Time Weighted Average

## 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/>

## Other Information

Explosive limits are unknown in literature, although the substance is combustible and has a flash point < 55°C.

### 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.