

# SAFETY DATA SHEET

Version 6.1  
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## SECTION 1: Identification of the hazardous chemical and of the supplier

### 1.1 Product identifiers

Product name : Butyl acetate

Product Number : 287725  
Brand : Sigma-Aldrich  
CAS-No. : 123-86-4

### 1.2 Other means of identification

No data available

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

Identified uses : For R&D use only. Not for pharmaceutical, household or other uses.

### 1.4 Details of the supplier of the safety data sheet

Company : SIGMA-ALDRICH (M) SDN BHD  
Level 3, Menara Sunway Annexe,  
Jalan Lagoon Timur, Bandar Sunway,  
46150 PETALING JAYA, SELANGOR  
MALAYSIA

Telephone : +60 (603)03-563-53321  
Fax : +60 (603)03-563-54116

### 1.5 Emergency telephone number

Emergency Phone # : 1-800-815-308 (CHEMTREC) \* + 62 0800  
140 1253 (Customer Call Centre)

## Section 2: Hazard identification

### 2.1 GHS Classification

Classification according to CLASS regulations 2013

Flammable liquids (Category 3), H226

Specific target organ toxicity - single exposure (Category 3), Central nervous system, H336

For the full text of the H-Statements mentioned in this Section, see Section 16.

### 2.2 GHS Label elements, including precautionary statements

Labelling according to CLASS regulations 2013

Pictogram



Signal word : Warning

Hazard statement(s)

H226 : Flammable liquid and vapour.

H336 : May cause drowsiness or dizziness.

## Precautionary statement(s)

### Prevention

- P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
- P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.

### Response

- P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
- P304 + P340 + P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.
- P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

### Storage

- P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

## 2.3 Other hazards

Repeated exposure may cause skin dryness or cracking.

## SECTION 3: Composition and information of the ingredients of the hazardous chemical

Substance / Mixture : Substance

### 3.1 Substances

- Formula :  $C_6H_{12}O_2$
- Molecular weight : 116.16 g/mol
- CAS-No. : 123-86-4
- EC-No. : 204-658-1
- Index-No. : 607-025-00-1

#### Hazardous components

Component	Classification	Concentration
<b>n-Butyl acetate</b>		
	Flam. Liq. 3; STOT SE 3; H226, H336	<= 100 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General advice

Consult a physician. Show this 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

Flush eyes with water as a precaution.

**If swallowed**

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

**4.2 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

**4.3 Indication of any immediate medical attention and special treatment needed**

No data available

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**SECTION 5: Firefighting measures****5.1 Extinguishing media****Suitable extinguishing media**

Dry powder Dry sand

**Unsuitable extinguishing media**

Do NOT use water jet.

**5.2 Special hazards arising from the substance or mixture**

Carbon oxides

**5.3 Advice for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

**5.4 Further information**

Use water spray to cool unopened containers.

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**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.  
For personal protection see section 8.

**6.2 Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

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

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

**6.4 Reference to other sections**

For disposal see section 13.

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**SECTION 7: Handling and storage****7.1 Precautions for safe handling**

Avoid inhalation of vapour 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.

## 7.2 Conditions for safe storage, including any incompatibilities

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.

## 7.3 Specific end use(s)

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

# SECTION 8: Exposure controls and personal protection

## 8.1 Control parameters

### Components with workplace control parameters

Component	CAS-No.	Value	Control parameters	Basis
n-Butyl acetate	123-86-4	TWA	150 ppm 713 mg/m <sup>3</sup>	Malaysia. Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health) Regulations 2000.

## 8.2 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

Face shield and safety glasses 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.

Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.4 mm

Break through time: 30 min

Material tested: Camatril® (KCL 730 / Aldrich Z677442, 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 CE 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**

Impervious clothing, 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. Discharge into the environment must be avoided.

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**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties**

a) Appearance	Form: liquid Colour: colourless, clear
b) Odour	fruity
c) Odour Threshold	No data available
d) pH	6.2 at 5.3 g/l at 20 °C
e) Melting point/freezing point	Melting point/range: -78 °C - lit.
f) Initial boiling point and boiling range	124 - 126 °C - lit.
g) Flash point	27 °C - closed cup - Regulation (EC) No. 440/2008, Annex, A.9
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	Upper explosion limit: 7.6 %(V) Lower explosion limit: 1.7 %(V)
k) Vapour pressure	11.2 hPa at 20 °C - Regulation (EC) No. 440/2008, Annex, A.4
l) Vapour density	4.01 - (Air = 1.0)
m) Relative density	0.88 g/cm <sup>3</sup> at 25 °C - lit.
n) Water solubility	5.3 g/l at 20 °C - OECD Test Guideline 105 - soluble
o) Partition coefficient: n-octanol/water	log Pow: 2.3 at 25 °C - OECD Test Guideline 117 - Bioaccumulation is not expected.
p) Auto-ignition temperature	415 °C at 1,010 hPa - DIN 51794
q) Decomposition temperature	No data available

- r) Viscosity 0.83 mm<sup>2</sup>/s at 20 °C - ASTM D 445 - 0.66 mm<sup>2</sup>/s at 40 °C - ASTM D 445 -
- s) Explosive properties No data available
- t) Oxidizing properties No data available

## 9.2 Other safety information

Conductivity	< 0.2 µS/cm
Surface tension	61.3 mN/m at 1g/l at 20 °C - OECD Test Guideline 115
Relative vapour density	4.01 - (Air = 1.0)

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

Heat, flames and sparks.

### 10.5 Incompatible materials

Strong oxidizing agents, Strong reducing agents, Strong bases

### 10.6 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

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - Rat - female - 10,760 mg/kg

(OECD Test Guideline 423)

LD50 Dermal - Rabbit - male and female - 14,112 mg/kg

(OECD Test Guideline 402)

#### Skin corrosion/irritation

Skin - Rabbit

Result: No skin irritation - 4 h

(OECD Test Guideline 404)

Drying-out effect resulting in rough and chapped skin.

#### Serious eye damage/eye irritation

Eyes - Rabbit

Result: No eye irritation

(OECD Test Guideline 405)

#### Respiratory or skin sensitisation

No data available

**Germ cell mutagenicity**

Ames test

Escherichia coli/Salmonella typhimurium

Result: negative

OECD Test Guideline 474

Mouse - male and female - Red blood cells (erythrocytes)

Result: negative

**Carcinogenicity**

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

IARC: No component 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**

No data available

**Specific target organ toxicity - single exposure**

May cause drowsiness or dizziness. - Central nervous system

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

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available

**Additional Information**

Repeated dose toxicity - Rat - male and female - Oral - 13 Weeks - No observed adverse effect level - 125 mg/kg - Lowest observed adverse effect level - 500 mg/kg

RTECS: AF7350000

Drowsiness

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

After absorption of large quantities:

somnolence, Drowsiness, narcosis

Handle in accordance with good industrial hygiene and safety practice.

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**SECTION 12: Ecological information****12.1 Toxicity**

Toxicity to fish	flow-through test LC50 - Pimephales promelas (fathead minnow) - 18 mg/l - 96 h (OECD Test Guideline 203)
Toxicity to daphnia and other aquatic invertebrates	static test EC50 - Daphnia magna (Water flea) - 44 mg/l - 48 h (OECD Test Guideline 202)
Toxicity to algae	static test ErC50 - Pseudokirchneriella subcapitata (green algae) - 397 mg/l - 72 h (OECD Test Guideline 201) Remarks: (in analogy to similar products)

Toxicity to bacteria      static test IC50 - Tetrahymena pyriformis - 356 mg/l - 40 h  
Remarks: (ECHA)

## 12.2 Persistence and degradability

Biodegradability      aerobic - Exposure time 28 d  
Result: 83 % - Readily biodegradable.  
(OECD Test Guideline 301D)

Theoretical oxygen demand      2,207 mg/g  
Remarks: (Lit.)

Ratio BOD/ThBOD      7 - 46 %  
Remarks: (Lit.)

## 12.3 Bioaccumulative potential

No data available

## 12.4 Mobility in soil

No data available

## 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

## 12.6 Other adverse effects

Harmful to aquatic life.  
Discharge into the environment must be avoided.

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# SECTION 13: Disposal information

## 13.1 Waste treatment methods

### Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable.

### Contaminated packaging

Dispose of as unused product.

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# SECTION 14: Transportation information

## 14.1 UN number

ADR/RID: 1123      IMDG: 1123      IATA-DGR: 1123

## 14.2 UN proper shipping name

ADR/RID: BUTYL ACETATES  
IMDG: BUTYL ACETATES  
IATA-DGR: Butyl acetates

## 14.3 Transport hazard class(es)

ADR/RID: 3      IMDG: 3      IATA-DGR: 3

## 14.4 Packaging group

ADR/RID: III      IMDG: III      IATA-DGR: III

## 14.5 Environmental hazards

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

## 14.6 Special precautions for user

None



## 14.7 Incompatible materials

Strong oxidizing agents, Strong reducing agents, Strong bases

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## SECTION 15: Regulatory information

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

#### Notification status

<b>AICS:</b>	On the inventory, or in compliance with the inventory
<b>DSL:</b>	All components of this product are on the Canadian DSL
<b>ENCS:</b>	On the inventory, or in compliance with the inventory
<b>ISHL:</b>	On the inventory, or in compliance with the inventory
<b>KECI:</b>	On the inventory, or in compliance with the inventory
<b>NZIoC:</b>	On the inventory, or in compliance with the inventory
<b>PICCS:</b>	On the inventory, or in compliance with the inventory

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## SECTION 16: Other information

### Full text of H-Statements referred to under sections 2 and 3.

H226	Flammable liquid and vapour.
H336	May cause drowsiness or dizziness.

### Further information

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