

# Safety data sheet

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BASF Safety data sheet according to the United Nations' Globally Harmonized System (UN GHS)

Date / Revised: 08.09.2023 Version: 4.0

Product: BUTYL GLYCOL ACETATE

(ID no. 30034846/SDS\_GEN\_00/EN)

Date of print 07.10.2025

#### 1. Identification

## **Product identifier**

# **BUTYL GLYCOL ACETATE**

Chemical name: 2-butoxyethyl acetate

CAS Number: 112-07-2

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

Relevant identified uses: Chemical, solvent(s)

## Details of the supplier of the safety data sheet

Company:
BASF SE
67056 Ludwigshafen
GERMANY
Operating Division Petrochemicals

Telephone: +49 621 60-42151

E-mail address: sds-petrochemicals@basf.com

## **Emergency telephone number**

International emergency number: Telephone: +49 180 2273-112

#### 2. Hazards Identification

# Classification of the substance or mixture

According to UN GHS criteria

Flam. Liq. 4

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Acute Tox. 4 (oral) Acute Tox. 4 (dermal) Aquatic Acute 3

For the classifications not written out in full in this section the full text can be found in section 16.

#### Label elements

## Globally Harmonized System (GHS)

#### Pictogram:



# Signal Word: Warning

Hazard Statement:

H227 Combustible liquid.

H302 + H312 Harmful if swallowed or in contact with skin.

H402 Harmful to aquatic life.

Precautionary Statements (Prevention):

P280 Wear protective gloves and eye protection or face protection.
P210 Keep away from heat, hot surfaces, sparks, open flames and other

ignition sources. No smoking.

P273 Avoid release to the environment.

P270 Do not eat, drink or smoke when using this product.
P264 Wash contaminated body parts thoroughly after handling.

Precautionary Statements (Response):

P312 Call a POISON CENTER or physician if you feel unwell.
P303 + P352 IF ON SKIN (or hair): Wash with plenty of soap and water.

P361 + P364 Take off immediately all contaminated clothing and wash it before

reuse.

P330 Rinse mouth.

P370 + P378 In case of fire: Use water spray, dry powder, foam or carbon dioxide for

extinction.

Precautionary Statements (Storage):

P403 Store in a well-ventilated place.

Precautionary Statements (Disposal):

P501 Dispose of contents and container to hazardous or special waste

collection point.

#### Other hazards

## According to UN GHS criteria

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

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See section 12 - Results of PBT and vPvB assessment.

# 3. Composition/Information on Ingredients

#### **Substances**

#### Chemical nature

2-Butoxyethyl acetate (Content (W/W): >= 99 %)

CAS Number: 112-07-2 EC-Number: 203-933-3 INDEX-Number: 607-038-00-2

## Hazardous ingredients (GHS)

According to UN GHS criteria

2-Butoxyethyl acetate

Content (W/W): >= 99 % - <= 100 Flam. Liq. 4

% Acute Tox. 4 (oral)
CAS Number: 112-07-2 Acute Tox. 4 (dermal)

EC-Number: 203-933-3 Aquatic Acute 3

INDEX-Number: 607-038-00-2 H227, H302 + H312, H402

For the classifications not written out in full in this section the full text can be found in section 16.

#### **Mixtures**

Not applicable

## 4. First-Aid Measures

#### **Description of first aid measures**

If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). First aid personnel should pay attention to their own safety.

Remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

On skin contact:

Wash thoroughly with soap and water

On contact with eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open.

On ingestion:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

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

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.

Hazards: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11. (Further) symptoms and / or effects are not known so far

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

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

## 5. Fire-Fighting Measures

## **Extinguishing media**

Suitable extinguishing media:

dry powder, water spray, carbon dioxide, foam

Unsuitable extinguishing media for safety reasons:

water jet

Additional information:

Use extinguishing measures to suit surroundings.

## Special hazards arising from the substance or mixture

Flammable liquid Cool endangered containers with water-spray. See SDS section 7 - Handling and storage.

## Advice for fire-fighters

Special protective equipment:

Wear a self-contained breathing apparatus. Special protective equipment for firefighters

Further information:

Evacuate area of all unnecessary personnel. Fight fire from maximum distance.

Extend fire extinguishing measures to the surroundings. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

## 6. Accidental Release Measures

High risk of slipping due to leakage/spillage of product.

Release of substance/product can cause fire or explosion. Shut off or stop source of leak. Shut off or stop released substance/product under safe conditions.

Pack in tightly closed containers for disposal.

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

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Avoid inhalation. Handle in accordance with good industrial hygiene and safety practice.

Avoid all sources of ignition: heat, sparks, open flame. Use antistatic tools.

## **Environmental precautions**

Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater.

## Methods and material for containment and cleaning up

For large amounts: Pump off product.

For residues: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr). Dispose of absorbed material in accordance with regulations. Spills should be contained, solidified, and placed in suitable containers for disposal.

## 7. Handling and Storage

## Precautions for safe handling

Ensure thorough ventilation of stores and work areas. Prevent contact with air/oxygen (formation of peroxide). Handle in accordance with good industrial hygiene and safety practice.

Protection against fire and explosion:

Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy. Avoid all sources of ignition: heat, sparks, open flame. Ground all transfer equipment properly to prevent electrostatic discharge.

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

Further information on storage conditions: Keep container tightly closed in a cool, well-ventilated place. Protect from air.

#### Specific end use(s)

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

## 8. Exposure Controls/Personal Protection

## **Control parameters**

Components with occupational exposure limits

112-07-2: 2-Butoxyethyl acetate

## **Exposure controls**

Personal protective equipment

Respiratory protection:

Wear respiratory protection if ventilation is inadequate. Gas filter for gases/vapours of organic compounds (boiling point >65 °C, e. g. EN 14387 Type A)

Hand protection:

Chemical resistant protective gloves (EN ISO 374-1)

Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN ISO 374-1):

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butyl rubber (butyl) - 0.7 mm coating thickness

Manufacturer's directions for use should be observed because of great diversity of types. Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing.

#### Eye protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

#### Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

#### General safety and hygiene measures

Avoid inhalation of vapour. Avoid contact with the skin, eyes and clothing. Wearing of closed work clothing is required additionally to the stated personal protection equipment. Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and Chemical Properties

#### Information on basic physical and chemical properties

Form: liquid
Colour: colourless
Odour: ester-like

Odour threshold:

not determined

pH value:

not applicable, of low solubility

Melting point: -63,5 °C

(1.013,25 hPa) Literature data.

Boiling range: 184 - 195 °C (DIN 53171)

(1.013 hPa)

Flash point: 78 °C (closed cup)

Evaporation rate:

Value can be approximated from Henry's Law Constant or vapor

pressure.

Flammability: Combustible liquid.

bustible liquid. (derived from flash point)

Lower explosion limit: 1,0 %(V) (73 °C)

The lower explosion point of the substance/mixture has been determined. The explosion point describes the temperature of a flammable liquid at which the

concentration of the saturated vapour mixed with air equals the lower

explosion limit.

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Upper explosion limit: 6,1 %(V)

(106.9 °C)

The upper explosion point of the substance/mixture has been determined. This explosion point describes the temperature of a flammable liquid at which the concentration of the saturated vapour

mixted with air equals the upper

explosion limit.

Ignition temperature: 280 °C Vapour pressure: 0,5 hPa

(20 °C)

Literature data.

Density: 0,935 - 0,942 g/cm3

5,5 := g, 5:::5

(20 °C) Relative density: 0,935 - 0,942

(20 °C)

Relative vapour density (air):> 1 (estimated)

(20 °C)

Heavier than air.

Solubility in water: Literature data.

15 g/l (20 °C)

Solubility (qualitative) solvent(s): organic solvents

soluble

Partitioning coefficient n-octanol/water (log Kow): 1,51

(OECD Guideline 107)

ignition at room-temperature.

(DIN 51757)

(25 °C; pH value: 7)

The data refers to the undissociated

form of the substance.

Self ignition: Based on its structural properties the Test type: Spontaneous self-

product is not classified as self-

igniting.

Thermal decomposition: No decomposition if stored and handled as prescribed/indicated.

Viscosity, dynamic: 1,8 mPa.s

(20 °C)

Literature data. 1,923 mm2/s

(20 °C)

Explosion hazard: Based on the chemical structure

there is no indication of explosive

properties.

Fire promoting properties: Based on its structural properties

the product is not classified as

oxidizing.

## Other information

Viscosity, kinematic:

Self heating ability: not applicable, the product is a liquid

pKA:

The substance does not dissociate.

Adsorption/water - soil: KOC: 15,08; log KOC: 1,18 (calculated)

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Surface tension:

Based on chemical structure, surface

activity is not to be expected.

Grain size distribution: The substance / product is marketed or used in a non solid or

granular form.

Molar mass: 160,21 g/mol

# 10. Stability and Reactivity

## Reactivity

When heated can give off ignitable vapours.

Corrosion to metals: Corrosive effects to metal are not anticipated.

Formation of Remarks: Forms no flammable gases in the

flammable gases: presence of water.

## **Chemical stability**

The product is stable if stored and handled as prescribed/indicated.

## Possibility of hazardous reactions

Reacts with strong oxidizing agents.

#### Conditions to avoid

No special precautions other than good housekeeping of chemicals.

#### Incompatible materials

Substances to avoid: strong oxidizing agents

#### Hazardous decomposition products

Hazardous decomposition products:

No hazardous decomposition products if stored and handled as prescribed/indicated.

## 11. Toxicological Information

#### Information on toxicological effects

#### Acute toxicity

Assessment of acute toxicity:

Of moderate toxicity after single ingestion. Of moderate toxicity after short-term skin contact. The inhalation of a highly enriched/saturated vapor-air-mixture represents an unlikely acute hazard. The European Union (EU) has classified this substance as 'harmful' after inhalation.

Experimental/calculated data:

LD50 rat (oral): approx. 1.880 mg/kg (OECD Guideline 401)

LC50 rat (by inhalation): > 400 ppm 4 h (OECD Guideline 403)

No mortality was observed. Highest concentration technically achievable. The vapour was tested.

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LD50 rabbit (dermal): approx. 1.500 mg/kg

#### **Irritation**

Assessment of irritating effects:

Not irritating to the skin. Not irritating to the eyes.

Experimental/calculated data:

Skin corrosion/irritation rabbit: non-irritant (BASF-Test)

Serious eye damage/irritation rabbit: non-irritant (BASF-Test)

#### Respiratory/Skin sensitization

Assessment of sensitization:

Skin sensitizing effects were not observed in animal studies.

Experimental/calculated data:

Buehler test guinea pig: Non-sensitizing. (Guideline 92/69/EEC, B.6)

#### Germ cell mutagenicity

#### Assessment of mutagenicity:

The substance was not mutagenic in bacteria. The substance was not mutagenic in mammalian cell culture. The substance was not mutagenic in a test with mammals. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

## Carcinogenicity

Assessment of carcinogenicity:

In long-term animal studies in which the substance was given by inhalation, a carcinogenic effect was not observed.

## Reproductive toxicity

Assessment of reproduction toxicity:

The results of animal studies gave no indication of a fertility impairing effect. The product has not been tested. The statement has been derived from the structure of the product.

#### Developmental toxicity

#### Assessment of teratogenicity:

In animal studies the substance did not cause malformations. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

## Specific target organ toxicity (single exposure)

## Assessment of STOT single:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

#### Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

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Assessment of repeated dose toxicity:

Damages blood cells. Due to the species specific mode of action, the effects are not expected to occur in humans.

Aspiration hazard

not applicable

# 12. Ecological Information

## **Toxicity**

Assessment of aquatic toxicity:

Acutely harmful for aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Toxicity to fish:

LC50 (96 h) 28,3 mg/l, Oncorhynchus mykiss (OECD Guideline 203, static)

The details of the toxic effect relate to the nominal concentration. Literature data.

Aquatic invertebrates:

EC50 (48 h) 37 mg/l, Daphnia magna (DIN 38412 Part 11, static)

The details of the toxic effect relate to the nominal concentration.

Aquatic plants:

EC50 (72 h) 1.570 mg/l (growth rate), Pseudokirchneriella subcapitata (ISO 8692, static)

The details of the toxic effect relate to the nominal concentration. Literature data.

EC0 (72 h) 300 mg/l (growth rate), Pseudokirchneriella subcapitata (ISO 8692, static)

The details of the toxic effect relate to the nominal concentration. Literature data.

Microorganisms/Effect on activated sludge:

EC20 (180 min) > 1.000 mg/l, (DIN EN ISO 8192, aerobic)

The details of the toxic effect relate to the nominal concentration.

Chronic toxicity to fish:

No data available.

Chronic toxicity to aquatic invertebrates:

EC10 (7 d) 30,4 mg/l, Ceriodaphnia dubia (OECD Guideline 211, semistatic)

The details of the toxic effect relate to the nominal concentration.

Assessment of terrestrial toxicity:

No data available concerning terrestrial toxicity.

## Persistence and degradability

Assessment biodegradation and elimination (H2O):

Readily biodegradable (according to OECD criteria).

Elimination information:

88 % BOD of the ThOD (28 d) (OECD 301F; ISO 9408; 92/69/EEC, C.4-D) (aerobic, activated sludge, domestic)

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Assessment of stability in water:

No data available.

## **Bioaccumulative potential**

Assessment bioaccumulation potential:

Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

Bioaccumulation potential:

No data available.

## Mobility in soil

Assessment transport between environmental compartments:

Volatility: The substance will not evaporate into the atmosphere from the water surface.

Adsorption in soil: Adsorption to solid soil phase is possible.

#### Results of PBT and vPvB assessment

According to Annex XIII of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not fulfill the criteria for PBT (Persistent/bioaccumulative/toxic) and vPvB (very persistent/very bioaccumulative). Self classification

## Other adverse effects

The substance is not listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer.

#### **Additional information**

Adsorbable organically-bound halogen (AOX):

This product contains no organically-bound halogen.

## 13. Disposal Considerations

#### Waste treatment methods

Must be sent to a suitable incineration plant, observing local regulations.

Contaminated packaging:

Contaminated packaging should be emptied as far as possible; then it can be passed on for recycling after being thoroughly cleaned.

#### 14. Transport Information

#### Land transport

**ADR** 

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Not classified as a dangerous good under transport regulations

UN number or ID number:
UN proper shipping name:
Transport hazard class(es):
Packing group:
Environmental hazards:

Not applicable
Not applicable
Not applicable

Special precautions for

user

Not applicable None known

RID

Not classified as a dangerous good under transport regulations

UN number or ID number:
UN proper shipping name:
Transport hazard class(es):
Packing group:
Environmental hazards:
Special precautions for

Not applicable
Not applicable
Not applicable
Not applicable
Not applicable

user

#### **Inland waterway transport**

**ADN** 

Not classified as a dangerous good under transport regulations

UN number or ID number:
UN proper shipping name:
Transport hazard class(es):
Packing group:
Environmental hazards:
Special precautions for

Not applicable
Not applicable
Not applicable
Not applicable
Not applicable
Not applicable

user:

Transport in inland waterway vessel

Not evaluated

#### Sea transport

**IMDG** 

Not classified as a dangerous good under transport regulations

UN number or ID number:
UN proper shipping name:
Transport hazard class(es):
Packing group:
Environmental hazards:
Special precautions for

Not applicable
Not applicable
Not applicable
Not applicable
Not applicable

user

## Air transport

IATA/ICAO

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Not classified as a dangerous good under transport regulations

UN number or ID number
UN proper shipping name:
Transport hazard class(es):
Packing group:
Environmental hazards:
Special precautions for

Not applicable
Not applicable
Not applicable
Not applicable
Not applicable
Not applicable

user

## Maritime transport in bulk according to IMO instruments

Maritime transport in bulk is not intended.

# 15. Regulatory Information

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

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

#### 16. Other Information

Full text of classifications, hazard symbols and hazard statements, if mentioned in section 2 or 3:

Flam. Liq. Flammable liquids
Acute Tox. Acute toxicity

Aquatic Acute Hazardous to the aquatic environment - acute

H227 Combustible liquid.

H302 + H312 Harmful if swallowed or in contact with skin.

H402 Harmful to aquatic life.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

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