# Chemical Safety Data Sheet MSDS / SDS

## 2-butoxyethyl acetate SDS

Revision Date:2024-04-25 Revision Number:1



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

### Product identifier

Product name: 2-butoxyethyl acetate

CAS: 112-07-2

### 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.in

Address: 5 vasavi Layout Basaveswara Nilayam Pragathi Nagar Hyderabad, India -500090

Telephone: +91 9550333722

## SECTION 2: Hazards identification

### Classification of the substance or mixture

Acute toxicity - Category 4, Dermal
Acute toxicity - Category 4, Inhalation

### GHS label elements, including precautionary statements

Pictogram(s)

Signal word Warning

### Hazard statement(s)

H312 Harmful in contact with skin
H332 Harmful if inhaled

### Precautionary statement(s)

### Prevention

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P271 Use only outdoors or in a well-ventilated area.

### Response

P302+P352 IF ON SKIN: Wash with plenty of water/...
P317 Get medical help.
P321 Specific treatment (see ... on this label).
P362+P364 Take off contaminated clothing and wash it before reuse.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

### Storage

none

### Disposal

P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

### Other hazards which do not result in classification

no data available

## SECTION 3: Composition/information on ingredients

**Substance**

| | |
|---|---|
| Chemical name: | 2-butoxyethyl acetate |
| Common names and synonyms: | 2-butoxyethyl acetate |
| CAS number: | 112-07-2 |
| EC number: | 203-933-3 |
| Concentration: | 100% |

## SECTION 4: First aid measures

**Description of necessary first-aid measures**

**If inhaled**

Fresh air, rest. Refer for medical attention.

**Following skin contact**

Remove contaminated clothes. Rinse and then wash skin with water and soap.

**Following eye contact**

First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then refer for medical attention.

**Following ingestion**

Rinse mouth. Give one or two glasses of water to drink. Do NOT induce vomiting. Refer for medical attention .

**Most important symptoms/effects, acute and delayed**

Inhalation of concentrated vapor may cause headache, nausea, dizziness. Liquid causes irritation of eyes and mild irritation of skin. Ingestion produces same symptoms as inhalation. (USCG, 1999)

**Indication of immediate medical attention and special treatment needed, if necessary**

Immediate first aid: Ensure that adequate decontamination has been carried out. If patient is not breathing, start artificial respiration, preferably with a demand-valve resuscitator, bag-valve-mask device, or pocket mask, as trained. Perform CPR as necessary. Immediately flush contaminated eyes with gently flowing water. Do not induce vomiting. If vomiting occurs, lean

patient forward or place on left side (head-down position, if possible) to maintain an open airway and prevent aspiration. Keep patient quiet and maintain normal body temperature. Obtain medical attention. Ethylene glycol, glycols, and related compounds

## SECTION 5: Firefighting measures

### Suitable extinguishing media

Use water in flooding quantities as fog. Cool all affected containers with flooding quantities of water. Apply water from as far a distance as possible. Use alcohol foam, dry chemical or carbon dioxide. Keep run-off water out of sewers and water sources.

### Specific hazards arising from the chemical

Combustible. Above 71°C explosive vapour/air mixtures may be formed.

### Special protective actions for fire-fighters

Use water spray, powder, alcohol-resistant foam, carbon dioxide.

## SECTION 6: Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Personal protection: filter respirator for organic gases and vapours adapted to the airborne concentration of the substance. Ventilation. Collect leaking liquid in sealable containers. Absorb remaining liquid in sand or inert absorbent. Then store and dispose of according to local regulations.

### Environmental precautions

Personal protection: filter respirator for organic gases and vapours adapted to the airborne concentration of the substance. Ventilation. Collect leaking liquid in sealable containers. Absorb remaining liquid in sand or inert absorbent. Then store and dispose of according to local regulations.

### Methods and materials for containment and cleaning up

SRP: Wastewater from contaminant suppression, cleaning of protective clothing/equipment, or contaminated sites should be contained and evaluated for subject chemical or decomposition product concentrations. Concentrations shall be lower than applicable environmental discharge or disposal criteria. Alternatively, pretreatment and/or discharge to a POTW is acceptable only after review by the governing authority. Due consideration shall be given to remediation worker exposure (inhalation, dermal and ingestion) as well as fate during treatment, transfer and disposal. If it is not practicable to manage the chemical in this fashion, it

must meet Hazardous Material Criteria for disposal.

## SECTION 7: Handling and storage

### Precautions for safe handling

NO open flames. Above 71°C use a closed system and ventilation. Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

### Conditions for safe storage, including any incompatibilities

Separated from strong oxidants and strong bases. Cool. Keep in the dark.Separated from strong oxidants, and strong bases. Cool. Keep in the dark.

## SECTION 8: Exposure controls/personal protection

### Control parameters

### Occupational Exposure limit values

TLV: 20 ppm as TWA; A3 (confirmed animal carcinogen with unknown relevance to humans).MAK: 66 mg/m3, 10 ppm; peak limitation category: I(2); skin absorption (H); carcinogen category: 4; pregnancy risk group: C.EU-OEL: 133 mg/m3, 20 ppm as TWA; 333 mg/m3, 50 ppm as STEL; (skin)

### Biological limit values

no data available

### Appropriate engineering controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

### Individual protection measures, such as personal protective equipment (PPE)

### Eye/face protection

Wear safety goggles.

### Skin protection

Protective gloves. Protective clothing.

**Respiratory protection**

Use ventilation, local exhaust or breathing protection.

**Thermal hazards**

no data available

## SECTION 9: Physical and chemical properties and safety characteristics

| | |
|---|---|
| Physical state: | Liquid. |
| Colour: | Colourless. |
| Odour: | Fruity |
| Melting point/freezing point: | -63.5 °C. Atm. press.:1 atm. |
| Boiling point or initial boiling point and boiling range: | 192.3 °C. Atm. press.:1 atm. |
| Flammability: | Class IIIA Combustible Liquid: Fl.P. at or above 140°F and below 200°F. |
| Lower and upper explosion limit/flammability limit: | Lower = 0.88% at 200 deg F (93 deg C), upper 8.54% at 275 deg F (135 deg C) |
| Flash point: | 71 °C. Atm. press.:1 atm. |
| Auto-ignition temperature: | 340 °C. Atm. press.:1 atm. |
| Decomposition temperature: | no data available |
| pH: | no data available |
| Kinematic viscosity: | kinematic viscosity (in mm2/s) = 3.063. Temperature:0.0°C.;kinematic viscosity (in mm2/s) = 2.363. Temperature:10.0°C.;kinematic viscosity (in mm2/s) = 1.923. Temperature:20°C. |

| | |
|---|---|
| Solubility: | 1.5 % (NIOSH, 2016) |
| Partition coefficient n-octanol/water: | log Pow = 1.51. Temperature:25 °C. |
| Vapour pressure: | 0.375 mm Hg. Temperature:25 °C. Remarks:Equivalent to 50.0 Pa. |
| Density and/or relative density: | 942.2 kg/m3. Temperature:20 °C. |
| Relative vapour density: | 5.5 (vs air) |
| Particle characteristics: | no data available |

## SECTION 10: Stability and reactivity

### Reactivity

The substance can presumably form explosive peroxides. Reacts with strong oxidants and strong bases. This generates fire and explosion hazard.

### Chemical stability

no data available

### Possibility of hazardous reactions

Fire hazard: moderate when exposed to heat, flame or oxidizers.ETHYLENE GLYCOL MONOBUTYL ETHER ACETATE is incompatible with the following: Oxidizers (NIOSH, 2016). It is an ether-ester derivative. The ether being relatively unreactive. Flammable and/or toxic gases are generated by the combination of alcohols with alkali metals, nitrides, and strong reducing agents. They react with oxoacids and carboxylic acids to form esters plus water. Oxidizing agents convert alcohols to aldehydes or ketones.

### Conditions to avoid

no data available

### Incompatible materials

Oxidizers.

### Hazardous decomposition products

When heated to decomp, emits acrid smoke and irritating fumes.

## SECTION 11: Toxicological information

### Acute toxicity

Oral: LD50 - rat (male/female) - ca. 1 880 mg/kg bw. Remarks:Effect level was calculated using the density of 0.94 g/cm3. The original value in the study was 2.0 mL/kg b.w.

Inhalation: LC0 - rat (male/female) - > 400 ppm.

Dermal: LD50 - rabbit - ca. 1 500 mg/kg bw.

### Skin corrosion/irritation

no data available

### Serious eye damage/irritation

no data available

### Respiratory or skin sensitization

no data available

### Germ cell mutagenicity

no data available

### Carcinogenicity

TLV-A3

### Reproductive toxicity

no data available

### STOT-single exposure

The vapour is irritating to the eyes, skin and respiratory tract. The substance may cause effects on the central nervous system. Exposure far above the OEL could cause unconsciousness. The substance may cause effects on the blood. This may result in lesions of blood cells and kidney impairment.

### STOT-repeated exposure

The substance defats the skin, which may cause dryness or cracking. The substance may have effects on the blood. This may result in anaemia and kidney impairment.

### Aspiration hazard

no data available

## SECTION 12: Ecological information

### Toxicity

Toxicity to fish: LC50 - Oncorhynchus mykiss (previous name: Salmo gairdneri) - > 20 - < 40 mg/L - 96 h.

Toxicity to daphnia and other aquatic invertebrates: EC50 - Daphnia magna - 37 mg/L - 48 h.

Toxicity to algae: EC50 - Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum) - 1 570 mg/L - 72 h.

Toxicity to microorganisms: EC20 - activated sludge of a predominantly domestic sewage - > 1 000 mg/L - 180 min.
Remarks:Respiration rate.

### Persistence and degradability

AEROBIC: Ethylene glycol monobutyl ether acetate was determined to be "completely" biodegradable using the Zahn-Wellens screening method(1). Total degradation exceeded 90% in 28 days with a measured rate of 12% per day under the test conditions(1). No observable lag period was required before onset of degradation(1).

### Bioaccumulative potential

An estimated BCF of 4 was calculated in fish for ethylene glycol monobutyl ether acetate(SRC), using a water solubility of 9000 mg/L(1) and a regression-derived equation(2). According to a classification scheme(3), this BCF suggests the potential for bioconcentration in aquatic organisms is low(SRC).

### Mobility in soil

The rate constant for the vapor-phase reaction of ethylene glycol monobutyl ether acetate with photochemically-produced hydroxyl radicals has been estimated as 2.1X10-11 cu cm/molecule-sec at 25 deg C(SRC) using a structure estimation method(1). This corresponds to an atmospheric half-life of about 18 hours at an atmospheric concentration of 5X10+5 hydroxyl radicals per cu cm(1). A base-catalyzed second-order hydrolysis rate constant of 0.26 L/mole-sec(SRC) was estimated using a structure estimation method(2); this corresponds to half-lives of 300 and 30 days at pH values of 7 and 8, respectively(2). Ethylene glycol monobutyl ether acetate contains chromophores that absorb at wavelengths >290 nm(3) and therefore may be susceptible to direct photolysis by sunlight(SRC).

### Other adverse effects

no data available

## SECTION 13: Disposal considerations

### Disposal methods

### Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

### Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

## SECTION 14: Transport information

### UN Number

ADR/RID: Not dangerous goods. (For reference only, please check.)
IMDG: Not dangerous goods. (For reference only, please check.)
IATA: Not dangerous goods. (For reference only, please check.)

### UN Proper Shipping Name

ADR/RID: Not dangerous goods. (For reference only, please check.)
IMDG: Not dangerous goods. (For reference only, please check.)
IATA: Not dangerous goods. (For reference only, please check.)

### Transport hazard class(es)

ADR/RID: Not dangerous goods. (For reference only, please check.)
IMDG: Not dangerous goods. (For reference only, please check.)
IATA: Not dangerous goods. (For reference only, please check.)

### Packing group, if applicable

ADR/RID: Not dangerous goods. (For reference only, please check.)
IMDG: Not dangerous goods. (For reference only, please check.)
IATA: Not dangerous goods. (For reference only, please check.)

### Environmental hazards

ADR/RID: No
IMDG: No
IATA: No

### Special precautions for user

no data available

### Transport in bulk according to IMO instruments

no data available

## SECTION 15: Regulatory information

### Safety, health and environmental regulations specific for the product in question

### European Inventory of Existing Commercial Chemical Substances (EINECS)

Listed.

### EC Inventory

Listed.

### United States Toxic Substances Control Act (TSCA) Inventory

Listed.

**China Catalog of Hazardous chemicals 2015**

Not Listed.

**New Zealand Inventory of Chemicals (NZIoC)**

Listed.

**(PICCS)**

Listed.

**Vietnam National Chemical Inventory**

Listed.

**IECSC)**

Listed.

**Korea Existing Chemicals List (KECL)**

Listed.

## 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**

IPCS - The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home

HSDB - Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm

IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/

eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en

CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple

ChemIDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp

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

Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp

ECHA - European Chemicals Agency, website: https://echa.europa.eu/

**Other Information**

Check for peroxides prior to distillation; eliminate if found.