# SAFETY DATA SHEET

**Creation Date** 05-Nov-2010 **Revision Date** 19-Dec-2025 **Revision Number** 8

**This safety data sheet was created pursuant to the requirements of: US OSHA Hazard Communication Standard 2024 (29 CFR 1910.1200)**

## 1. Identification

**Product Name** **2-Butoxyethyl acetate**

**Cat No. :** **AC403410000; AC403410010; AC403410020; AC403410025; AC403410050; AC403410100**

**CAS No** 112-07-2
**Synonyms** 2-Butoxyethanol acetate; Butyl Cellosolve acetate; Ethylene glycol monobutyl ether acetate

**Recommended Use** Laboratory chemicals.
**Uses advised against** Food, drug, pesticide or biocidal product use.

**Details of the supplier of the safety data sheet**

**Company**
Fisher Scientific Company
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

**Emergency Telephone Number**
For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11
Emergency Number **US:**001-201-796-7100 / **Europe:** +32 14 57 52 99
**CHEMTREC** Tel. No. **US:**001-800-424-9300 / **Europe:**001-703-527-3887

## 2. Hazard(s) identification

**Classification**
This chemical is considered hazardous according to [US] OSHA (29 CFR 1910.1200, 2024)

| | |
|---|---|
| Flammable liquids | Category 4 |
| Acute dermal toxicity | Category 4 |
| Acute Inhalation Toxicity - Vapors | Category 4 |

**Label Elements**

**Signal Word**
Warning

**Hazard Statements**
Combustible liquid
Harmful in contact with skin or if inhaled



**Precautionary Statements**
**Prevention**
Wear protective gloves/protective clothing/eye protection/face protection
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
**Inhalation**
IF INHALED: Remove person to fresh air and keep comfortable for breathing
Call a POISON CENTER or doctor if you feel unwell
**Skin**
IF ON SKIN: Wash with plenty of soap and water
Call a POISON CENTER or doctor if you feel unwell
Take off contaminated clothing and wash before reuse
**Fire**
In case of fire: Use CO2, dry chemical, or foam to extinguish
**Storage**
Store in a well-ventilated place. Keep cool
**Disposal**
Dispose of contents/container to an approved waste disposal plant
**Hazards not otherwise classified (HNOC)**
None identified

**Hazards classified under paragraph (d)(1)(ii) of 1910.1200**
No information available

## 3. Composition/information on Ingredients

| Component | CAS No | Weight % |
|---|---|---|
| Ethylene glycol, monobutyl ether acetate | 112-07-2 | >95 |

## 4. First-aid measures

**General Advice** If symptoms persist, call a physician.

**Eye Contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

**Skin Contact** Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.

**Inhalation** Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.

**Ingestion** Clean mouth with water and drink afterwards plenty of water.

**Most important symptoms and effects** None reasonably foreseeable. . Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting
**Notes to Physician** Treat symptomatically

## 5. Fire-fighting measures

**Suitable Extinguishing Media** Water spray, carbon dioxide (CO2), dry chemical, alcohol-resistant foam. Water mist may be used to cool closed containers.

**Unsuitable Extinguishing Media** No information available

**Flash Point** 76 °C / 168.8 °F

**Method -** No information available

**Autoignition Temperature** 340 °C / 644 °F

**Explosion Limits**

**Upper** 8.54%
**Lower** 0.88 %
**Sensitivity to Mechanical Impact** No information available
**Sensitivity to Static Discharge** No information available

**Specific Hazards Arising from the Chemical**
Combustible material. Containers may explode when heated.

**Hazardous Combustion Products**
Carbon monoxide (CO). Carbon dioxide ($CO_2$).
**Protective Equipment and Precautions for Firefighters**
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**NFPA**

| Health | Flammability | Instability | Physical hazards |
|---|---|---|---|
| 1 | 2 | 0 | N/A |

## 6. Accidental release measures

**Personal Precautions** Ensure adequate ventilation. Use personal protective equipment as required. Remove all sources of ignition. Take precautionary measures against static discharges.

**Environmental Precautions** Should not be released into the environment. Do not flush into surface water or sanitary sewer system.

**Methods for Containment and Clean Up** Keep in suitable, closed containers for disposal. Soak up with inert absorbent material. Remove all sources of ignition.

## 7. Handling and Storage

**Handling** Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Keep away from open flames, hot surfaces and sources of ignition.

**Storage.** Keep away from heat, sparks and flame. Keep containers tightly closed in a dry, cool and well-ventilated place. Incompatible Materials. Strong oxidizing agents.

## 8. Exposure controls / personal protection

**Exposure Guidelines**

| Component | ACGIH TLV | OSHA PEL | NIOSH | Mexico OEL (TWA) |
|---|---|---|---|---|
| Ethylene glycol, monobutyl ether acetate | TWA: 20 ppm | | REL = 5 ppm (TWA)<br>REL = 33 mg/m³ (TWA) | TWA: 20 ppm |

*Legend*

*ACGIH - American Conference of Governmental Industrial Hygienists*
*NIOSH: NIOSH - National Institute for Occupational Safety and Health*

**Engineering Measures** Ensure adequate ventilation, especially in confined areas.

**Personal Protective Equipment**

**Eye/face Protection** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin and body protection** Wear appropriate protective gloves and clothing to prevent skin exposure.

**Respiratory Protection** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

**Recommended Filter type:** Organic gases and vapours filter. Type A. Brown. conforming to EN14387.

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

**Appearance**

| | | |
|---|---|---|
| **Physical State** | Liquid | |
| **Color** | Colorless | |
| **Odor** | sweet | |
| **Odor Threshold** | No information available | |

| **Property** | **Values** | **Remarks • Method** |
|---|---|---|
| **Melting Point/Range** | -64 °C / -83.2 °F | |
| **Softening Point** | No data available | |
| **Boiling Point/Range** | 193.5 °C / 380.3 °F | @ 760 mmHg |
| **Flash Point** | 76 °C / 168.8 °F | **Method -** No information available |
| **Flammability (liquid)** | Combustible liquid | On basis of test data |
| **Flammability (solid,gas)** | Not applicable | Liquid |
| **Explosion Limits** | **Lower** 0.88 vol% | |
| | **Upper** 8.54 vol% | |
| **Autoignition Temperature** | 340 °C / 644 °F | |
| **Decomposition Temperature** | No data available | |
| **pH** | No information available | |
| **Viscosity** | No data available | |
| **Water Solubility** | Soluble | |
| **Solubility in other solvents** | No information available | |

**Partition Coefficient (n-octanol/water)**

| **Component** | **log Pow** |
|---|---|
| Ethylene glycol, monobutyl ether acetate | 1.51 |

| | | |
|---|---|---|
| **Vapor Pressure** | 0.375 mmHg @ 25 °C | |
| **Density / Specific Gravity** | 0.939 | |
| **Bulk Density** | Not applicable | Liquid |
| **Vapor Density** | 5.3 (Air = 1.0) | (Air = 1.0) |
| **Particle characteristics** | Not applicable (liquid) | |

**Other Information**

| | |
|---|---|
| **Molecular Formula** | C8 H16 O3 |
| **Molecular Weight** | 160.21 |
| **Explosive Properties** | explosive air/vapour mixtures possible |

## 10. Stability and reactivity

**Reactive Hazard** None known, based on information available

**Stability** Stable under normal conditions.

**Conditions to Avoid** Incompatible products. Keep away from open flames, hot surfaces and sources of ignition.

**Incompatible Materials** Strong oxidizing agents

**Hazardous Decomposition Products** Carbon monoxide (CO), Carbon dioxide ($CO_2$)

**Hazardous Polymerization** No information available.

**Hazardous Reactions** None under normal processing.

## 11. Toxicological information

**Information on expected route of exposure**

**Inhalation** Not an expected route of exposure.
**Ingestion** May be harmful if swallowed.
**Eyes** Avoid contact with eyes.
**Skin** Avoid contact with skin. Harmful in contact with skin.

**Toxicology data for the components**

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|---|---|---|---|
| Ethylene glycol, monobutyl ether acetate | LD50 = 2400 mg/kg ( Rat ) | LD50 = 1500 mg/kg ( Rabbit ) | LC50 > 400 ppm ( Rat ) 4 h |

**Toxicologically Synergistic Products** No information available

**(b) skin corrosion/irritation;** Based on available data, the classification criteria are not met

**(c) serious eye damage/irritation;** Based on available data, the classification criteria are not met

**(d) respiratory or skin sensitization;**
**Respiratory** Based on available data, the classification criteria are not met
**Skin** Based on available data, the classification criteria are not met

**(e) germ cell mutagenicity;** Based on available data, the classification criteria are not met

**(f) carcinogenicity;** Based on available data, the classification criteria are not met

The table below indicates whether each agency has listed any ingredient as a carcinogen

| Component | CAS No | IARC | NTP | ACGIH | OSHA | Mexico |
|---|---|---|---|---|---|---|
| Ethylene glycol, monobutyl ether acetate | 112-07-2 | Not listed | Not listed | A3 | Not listed | A3 |

*ACGIH: (American Conference of Governmental Industrial Hygienists)*

*A1 - Known Human Carcinogen*
*A2 - Suspected Human Carcinogen*
*A3 - Animal Carcinogen*
*ACGIH: (American Conference of Governmental Industrial Hygienists)*

**(g) reproductive toxicity;** Based on available data, the classification criteria are not met

**(h) STOT-single exposure;** Based on available data, the classification criteria are not met

**(i) STOT-repeated exposure;** Based on available data, the classification criteria are not met

**Target Organs** None known.

**(j) aspiration hazard;** Based on available data, the classification criteria are not met

**Symptoms / effects,both acute and delayed** Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

**Other Adverse Effects** The toxicological properties have not been fully investigated.

**Endocrine Disrupting Properties** This product does not contain any known or suspected endocrine disruptors.

## 12. Ecological information

**Ecotoxicity**

Do not empty into drains. Contains a substance which is:. Harmful to aquatic organisms. The product contains following substances which are hazardous for the environment.

| Component | Freshwater Algae | Freshwater Fish | Microtox | Water Flea |
|---|---|---|---|---|
| Ethylene glycol, monobutyl ether acetate | EC50 > 500 mg/L, 72h (Desmodesmus subspicatus) | LC50: 20 - 40 mg/L, 96h (Oncorhynchus mykiss) | Not listed | EC50 = 37 mg/L, 48h (Daphnia magna) |

**Persistence and Degradability** Soluble in water Persistence is unlikely based on information available.

**Bioaccumulation/ Accumulation** No information available.

**Mobility** . Will likely be mobile in the environment due to its water solubility.

| Component | log Pow |
|---|---|
| Ethylene glycol, monobutyl ether acetate | 1.51 |

## 13. Disposal considerations

**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

## 14. Transport information

**DOT** COMBUSTIBLE LIQUID, NOT REGULATED FOR TRANSPORT IN THIS QUANTITY According to 49 CFR §173.150(f)(1), this material should reclassified as NA1993, Combustible Liquid, NOS if it is shipped in bulk

**UN-No** NA1993
**Proper Shipping Name** Combustible liquid, n.o.s.
**Packing Group** III

**TDG** Not regulated
**IATA** Not regulated
**IMDG/IMO** Not regulated

## 15. Regulatory Information

**United States of America Inventory**

| Component | CAS No | TSCA | TSCA Inventory notification - Active-Inactive | TSCA - EPA Regulatory Flags |
|---|---|---|---|---|
| Ethylene glycol, monobutyl ether acetate | 112-07-2 | X | ACTIVE | - |

**Legend:**
**TSCA** US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)
X - Listed
'-' - Not Listed

**TSCA - Per 40 CFR 751, Regulation of Certain Chemical Substances & Mixtures, Under TSCA Section 6(h) (PBT)** Not applicable

**TSCA 12(b)** - Notices of Export Not applicable

**International Inventories**
Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

| Component | CAS No | DSL | NDSL | EINECS | PICCS | ENCS | ISHL | AICS | IECSC | KECL |
|---|---|---|---|---|---|---|---|---|---|---|
| Ethylene glycol, monobutyl ether acetate | 112-07-2 | X | - | 203-933-3 | X | X | X | X | X | KE-04135 |

**KECL** - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

**U.S. Federal Regulations**

**SARA 313**
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

| Component | CAS No | Weight % | SARA 313 - Threshold Values % | SARA 313 - Reporting threasholds |
|---|---|---|---|---|
| Ethylene glycol, monobutyl ether acetate | 112-07-2 | >95 | 1.0 % | - |

**SARA 311/312 Hazard Categories**
Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

**CWA (Clean Water Act)** Not applicable

**Clean Air Act**

| Component | HAPS Data | Class 1 Ozone Depletors | Class 2 Ozone Depletors |
|---|---|---|---|
| Ethylene glycol, monobutyl ether acetate | X | | - |

**OSHA** - Occupational Safety and Health Administration Not applicable

**CERCLA**
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

**California Proposition 65** This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

| Component | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|---|---|---|---|---|---|
| Ethylene glycol, monobutyl ether acetate | - | X | X | X | - |

**U.S. Department of Transportation**
Reportable Quantity (RQ): N
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

**U.S. Department of Homeland Security** This product does not contain any DHS chemicals.

**Other International Regulations**

**Mexico - Grade** No information available

**Authorisation/Restrictions according to EU REACH** Not applicable

| Component | CAS No | REACH (1907/2006) - Annex XIV - Substances Subject to Authorization | REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances | REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC) |
|---|---|---|---|---|
| Ethylene glycol, monobutyl ether acetate | 112-07-2 | - | - | - |

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

| Component | CAS No | OECD HPV | Persistent Organic Pollutant | Ozone Depletion Potential | Restriction of Hazardous Substances (RoHS) |
|---|---|---|---|---|---|
| Ethylene glycol, monobutyl ether acetate | 112-07-2 | Listed | Not applicable | Not applicable | Not applicable |

**Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?**
Not applicable

**Other International Regulations**

| Component | CAS No | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements | Rotterdam Convention (PIC) | Basel Convention (Hazardous Waste) |
|---|---|---|---|---|---|
| Ethylene glycol, monobutyl ether acetate | 112-07-2 | Not applicable | Not applicable | Not applicable | Not applicable |

## 16. Other Information

**Prepared By**
Product stewardship (Regulatory Affairs)
Thermo Fisher Scientific
email - begel.sdsdesk@thermofisher.com

| | |
|---|---|
| **Creation Date** | 05-Nov-2010 |
| **Revision Date** | 19-Dec-2025 |
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| **Revision Summary** | Updated to the U.S. Department of Labor's Occupational Safety and Health Administration (OSHA) which published its Final Rule in the Federal Register revising the Hazard Communication Standard (HCS/HazCom), 29 CFR 1910.1200 (2024) (HCS §1910.1200, 2024), May 20, 2024, effective July 19, 2024. |

**Disclaimer**

**The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text**

## End of SDS