

## Butyl Glycol Ether

### SECTION 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

<b>Trade name</b>	Butyl Glycol Ether		
<b>Synonyms</b>	Butyl cellosolve, Ethylene glycol monobutyl ether		
<b>Use</b>	Hard-surface cleaner, Industrial & Institutional cleaning, Industrial use, Intermediate, Paint and Coatings, Paper Chemical, Raw material for chemical processes, Raw material for industry, Solvent		
<b>Company</b>	Sasol Chemicals (USA) LLC (an affiliate of Sasol Chemicals North America LLC)		
<b>Address</b>	900 Threadneedle Ste 100 Houston TX 77079		
<b>Telephone</b>	CHEMTREC North America Transportation Emergency (24-hr)		(800) 424-9300
	CHEMTREC World Wide		(703) 527-3887
	Other Emergencies (24-hr)		(337) 494-5142
	MSDS and Product Information (8:00am-4:30pm CST)		(281) 588-3491
	Health and Safety Information (7:30am-4:00pm CST)		(281) 588-3492
<b>E-mail address</b>	SasolElectronicSDS@us.sasol.com		

### SECTION 2 HAZARDS IDENTIFICATION

#### GHS Hazards

Flammable liquids	Category 4
Acute toxicity (Oral)	Category 4
Acute toxicity (Inhalation)	Category 4
Acute toxicity (Dermal)	Category 4
Eye irritation	Category 2A
Skin irritation	Category 2

#### LABEL ELEMENTS

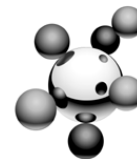
##### Hazard symbols



**Signal word** Warning

<b>Hazard statements</b>	H227 Combustible liquid.
	H302 Harmful if swallowed.
	H312 Harmful in contact with skin.
	H315 Causes skin irritation.
	H319 Causes serious eye irritation.
	H332 Harmful if inhaled.

#### Precautionary statements



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- Prevention**
- P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
  - P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
  - P264 Wash skin thoroughly after handling.
  - P270 Do not eat, drink or smoke when using this product.
  - P271 Use only outdoors or in a well-ventilated area.
  - P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
- Response**
- P370 + P378 In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide for extinction.
  - P301 + P312 IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel unwell.
  - P330 Rinse mouth.
  - P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
  - P362 Take off contaminated clothing and wash before reuse.
  - P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
  - P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - P337 + P313 If eye irritation persists: Get medical advice/ attention.
  - P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- Storage**
- P403 + P235 Store in a well-ventilated place. Keep cool.
- Disposal**
- P501 Dispose of contents/ container to an approved waste disposal plant.

### SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

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<u>Components</u>	<u>CAS-No.</u>	<u>Weight percent</u>
2-butoxyethanol	111-76-2	100

See Section 8 for Exposure Guidelines and Section 15 for Regulatory Classifications.

### SECTION 4 FIRST AID MEASURES

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- Eye contact** Rinse immediately with plenty of water for at least 15 minutes. If eye irritation persists, consult a specialist.
- Skin contact** If skin irritation persists, call a physician. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
- Inhalation** Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a physician immediately.
- Ingestion** Do NOT induce vomiting. Consult a physician.

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### SECTION 5 FIREFIGHTING MEASURES

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#### FLAMMABLE PROPERTIES

**Fire/explosion** NFPA Class IIIA combustible liquid.

**Suitable extinguishing media** Water spray, Foam, Dry chemical, Carbon dioxide (CO<sub>2</sub>)

**Protective equipment and precautions for firefighters** In the event of fire, wear self-contained breathing apparatus.

**Further information** Keep containers and surroundings cool with water spray.

### SECTION 6 ACCIDENTAL RELEASE MEASURES

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**Methods and materials for containment and cleaning up** Evacuate the area and eliminate all sources of ignition. 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).

### SECTION 7 HANDLING AND STORAGE

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**Safe handling advice** Ensure all equipment is electrically grounded before beginning transfer operations. Keep away from heat and sources of ignition.

**Storage/Transport pressure** Ambient

**Load/Unload temperature** Ambient

### SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

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#### ENGINEERING MEASURES

Air contaminant levels should be controlled below the PEL or TLV for this product (see Exposure Guidelines).

#### PERSONAL PROTECTIVE EQUIPMENT

**Eyes** Wear as appropriate: Goggles, Face-shield

**Skin** Wear suitable protective clothing, gloves and eye/face protection.

**Inhalation** Respiratory protection is normally not required except in emergencies or when conditions cause excessive airborne levels of mists or vapors. Use NIOSH approved respiratory protection.

#### EXPOSURE GUIDELINES

Components Exposure limit(s)

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**2-butoxyethanol** OSHA PEL 50 ppm 240 mg/m<sup>3</sup>  
ACGIH TLV (8-hour) 20 ppm  
Confirmed animal carcinogen with unknown relevance to humans.

PEL= Permissible Exposure Limits

TLV= Threshold Limit Value

EL= Excursion Limit

TWA= Time Weighted Average (8 hr.)

STEL= Short Term Exposure Limit (15 min.)

WEEL= Workplace Environmental Exposure Level

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## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

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**Appearance** liquid;

**Colour** Clear, colorless

**Form** liquid

**Odour** mild

**Odour Threshold** no data available

**Flash point** 67 °C, 152 °F;

**Flammability** Upper explosion limit: ca. 10.6 %(V)  
Lower explosion limit: ca. 1.1 %(V)

**Boiling point/boiling range** 171 °C, 340 °F;

**Melting point/range** -75 °C, -103 °F;

**Auto-ignition temperature** ca. 230 °C, 446 °F;

**Decomposition temperature** no data available

**Flammability (solid, gas)** no data available

**Vapour pressure** 1 hPa @ 20 °C, 68 °F;

**Vapour density** 4.1

**Density** 0.9 g/cm<sup>3</sup> @ 20 °C, 60 °F;

**Specific gravity** no data available

**Water solubility** completely miscible

**Viscosity** no data available

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**Viscosity, dynamic** 3.3 mPa.s @ 20 °C, 68 °F;

**pH** 7 @ 20 °C, 68 °F;

**Evaporation rate** no data available

**Partition coefficient: n-octanol/water** no data available

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### SECTION 10 STABILITY AND REACTIVITY

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**Reactivity** Stable at normal ambient temperature and pressure.

**Chemical stability** No decomposition if stored and applied as directed.

**Conditions to avoid** Keep away from heat and sources of ignition.

**Hazardous decomposition products** Combustion products include carbon dioxide, carbon monoxide and possibly other unidentified organic compounds.

**Materials to avoid** Oxidizing agents

**Hazardous polymerisation** Stable

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### SECTION 11 TOXICOLOGICAL INFORMATION

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**Acute dermal toxicity** LD50 rabbit: > 1,000 - 2,000 mg/kg(literature value)

**Acute inhalation toxicity** LC50 rat (4 hours): > 10 - 20 mg/l (literature value)

**Acute oral toxicity** LD50 rat: > 300 - 2,000 mg/kg (literature value)

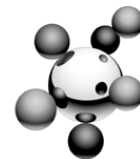
**Skin corrosion/irritation** (rabbit)  
Irritating.

**Eye damage/irritation** (rabbit)  
Irritating.

**Respiratory or skin sensitization** guinea pig: not sensitizing; Maximisation Test (literature value)

**Germ cell mutagenicity** **Genotoxicity in vitro:**  
Type: Ames test  
System: Salmonella typhimurium; with and without metabolic activation  
Result: In vitro tests did not show mutagenic effects.  
(literature value)

**Genotoxicity in vivo:**



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no data available

**Assessment Mutagenicity:**

Based on available data, the classification criteria are not met.

**Reproductive toxicity** **Reproductive toxicity:**  
no data available

**Assessment Reproductive toxicity:**

no data available

**Teratogenicity:**

no data available

**Assessment teratogenicity:**

no data available

**STOT - single exposure** no data available

**STOT - repeated exposure** no data available

**Aspiration toxicity** no data available

**Carcinogenicity** **Assessment carcinogenicity:**  
Contains no ingredient listed as a carcinogen

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## SECTION 12 ECOLOGICAL INFORMATION

<b>Toxicity to fish</b>	LC50 (Oncorhynchus mykiss (rainbow trout)) 96 hours: > 100 mg/l; static test (literature value)
<b>Toxicity to aquatic invertebrates</b>	EC50 (Daphnia magna (Water flea)) 48 hours: > 100 mg/l; static test (literature value)
<b>Toxicity to algae</b>	EC50 (Pseudokirchneriella subcapitata (green algae)) 72 hours: > 100 mg/l; static test (literature value)
<b>Chronic toxicity to fish</b>	NOEC (Danio rerio (zebra fish)) 21 d: > 100 mg/l; semi-static test; OECD Test Guideline 204 (literature value)
<b>Chronic toxicity to aquatic invertebrates</b>	EC10 (Daphnia magna (Water flea)) 21 d: > 100 mg/l; semi-static test; OECD Test Guideline 211 (literature value)
<b>Biodegradation</b>	Readily biodegradable.  OECD Test Guideline 301B (28 d): > 60 % (literature value)

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**Bioaccumulation** no data available

**Mobility in soil** no data available

**Other adverse effects** This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).;

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### SECTION 13 DISPOSAL CONSIDERATIONS

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**Waste Code** Any unused product or empty containers may be disposed of as non-hazardous in accordance with state and federal requirements. Re-evaluation of the product may be required by the user at the time of disposal, since the product uses, transformations, mixtures, contamination, and spillage may change the classification. If the resulting material is determined to be hazardous, please dispose in accordance with state and federal (40 CFR 262) hazardous waste regulations.

**Disposal methods** Dispose of only in accordance with local, state, and federal regulations.

**Empty containers.** Empty containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Empty drums should be completely drained, triple-rinsed, properly bunged and promptly returned to a drum reconditioner, or properly disposed.

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### SECTION 14 TRANSPORT INFORMATION

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**DOT** NA 1993, Combustible liquid, n.o.s.(2-butoxyethanol), III  
This product is regulated as a hazardous material according to the Department of Transportation only in bulk quantities (greater than 119 gallons per package).

**IATA** Not regulated.

**IMDG** Not regulated.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

**Remarks** no data available

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### SECTION 15 REGULATORY INFORMATION

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#### U.S. FEDERAL REGULATIONS

##### OSHA Hazards (HCS 1994)

Combustible liquid., Eye irritation, Skin irritation

##### TSCA Inventory Listing

###### Components

2-butoxyethanol

###### CAS-No.

111-76-2

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### SARA 302 Status

#### Components

#### CAS-No.

#### Weight percent

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

### SARA 311/312 Classification

"Immediate (acute) health hazard", "Fire hazard"

### SARA 313 Chemical

#### Components

#### CAS-No.

#### Weight percent

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

### US. EPA CERCLA Hazardous Substances (40 CFR 302)

#### Components

#### Reportable Quantity

#### Weight percent

none

## INTERNATIONAL REGULATIONS

### WHMIS Classification

Class B, Division 3: Combustible liquid.  
Class D, Division 2, Subdivision B: Toxic material.

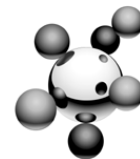
### European Union

Classification according to Regulation (EU) 1272/2008.

Flammable liquids, Category 4  
Acute toxicity (Dermal), Category 4  
Acute toxicity (Inhalation), Category 4  
Acute toxicity (Oral), Category 4  
Eye irritation, Category 2  
Skin irritation, Category 2

<b>Australia. Inventory of Chemical Substances (AICS)</b>	Listed
<b>Japan. Inventory of Existing and New Chemical Substances (ENCS)</b>	Listed
<b>Japan. Industrial Safety &amp; Health Law (ISHL) Inventory</b>	Listed
<b>Canada. Domestic Substances List (DSL) Inventory</b>	Listed
<b>Canadian Non-Domestic Substance Listing (NDSL)</b>	Not listed
<b>European Inventory of Existing Commercial Chemical Substances (EINECS) Listing</b>	Listed
<b>Philippines. Inventory of Chemicals / Chemical Substances (PICCS)</b>	Listed
<b>Korea. Existing Chemicals Inventory (KECI)</b>	Listed
<b>China. Inventory of Existing Chemical Substances (IECSC)</b>	Listed
<b>Mexico. National Inventory of Chemical Substances (INSQ)</b>	Listed





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New Zealand. Inventory of Chemicals (NZIoC)	Listed
Switzerland. Inventory of Notified New Substances (CHINV)	Listed
Taiwan. National Existing Chemical Inventory (NECI)	Listed

Please note: The names and CAS numbers which are used for this product in the stated inventories may deviate from the information which is listed in Section 3.

### STATE REGULATIONS

California Prop. 65  
Components  
none

CAS-No.

## SECTION 16 OTHER INFORMATION

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### HAZARD RATINGS

	<u>Health</u>	<u>Flammability</u>	<u>Physical Hazard/ Instability</u>
<b>HMIS®</b>	2	2	0
<b>NFPA</b>	2	2	0

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