

Butyl Glycol Ether

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

Trade name Butyl Glycol Ether

Synonyms Butyl cellosolve, Ethylene glycol monobutyl ether

Use Hard-surface cleaner, Industrial & Institutional cleaning, Industrial use, Intermediate, Paint and Coatings, Paper Chemical, Raw material for chemical processes, Raw material for industry, Solvent

Company Sasol Chemicals (USA) LLC
(an affiliate of Sasol Chemicals North America LLC)

Address 12120 Wickchester Lane Houston TX 77079

Telephone 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

E-mail address 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

Hazard statements 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.

Butyl Glycol Ether

Precautionary statements

- 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

<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

- 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.

Butyl Glycol Ether

SECTION 5 FIREFIGHTING MEASURES

FLAMMABLE PROPERTIES

Fire/explosion NFPA Class IIIA combustible liquid.

Suitable extinguishing media Water spray, Foam, Dry chemical, Carbon dioxide (CO₂)

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

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

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

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.

Butyl Glycol Ether

EXPOSURE GUIDELINES

<u>Components</u>	<u>Exposure limit(s)</u>
2-butoxyethanol	OSHA PEL 50 ppm 240 mg/m ³ 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

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

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 ³ @ 20 °C, 60 °F;
Specific gravity	no data available
Water solubility	completely miscible

Butyl Glycol Ether

Viscosity	no data available
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

SECTION 10 STABILITY AND REACTIVITY

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

SECTION 11 TOXICOLOGICAL INFORMATION

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 (GPMT) (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

Butyl Glycol Ether

(literature value)

Genotoxicity In vivo:
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

SECTION 12 ECOLOGICAL INFORMATION

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

Butyl Glycol Ether

OECD Test Guideline 301B (28 d): > 60 %
(literature value)

Bioaccumulation no data available

Mobility in soil no data available

Other adverse effects This substance is not considered to be persistent, bioaccumulating and toxic (PBT).;

SECTION 13 DISPOSAL CONSIDERATIONS

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.

SECTION 14 TRANSPORT INFORMATION

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 Shipment by water under IMDG is non-regulated; however it must be shipped per the applicable DOT hazard classification if any part of the shipment is by ground.

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

Remarks no data available

SECTION 15 REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS**OSHA Hazards (HCS 1994)**

Combustible liquid., Eye irritation, Skin irritation

Butyl Glycol Ether

TSCA Inventory Listing

Components

2-butoxyethanol

CAS-No.

111-76-2

SARA 302 Status

Components

CAS-No.

Weight percent

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

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

none

Reportable Quantity

Weight percent

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

Australia. Inventory of Chemical Substances (AICS)	Listed
Japan. Inventory of Existing and New Chemical Substances (ENCS)	Listed
Japan. Industrial Safety & Health Law (ISHL) Inventory	Listed
Canada. Domestic Substances List (DSL) Inventory	Listed
Canadian Non-Domestic Substance Listing (NDSL)	Not listed
European Inventory of Existing Commercial Chemical Substances (EINECS) Listing	Listed
Philippines. Inventory of Chemicals / Chemical Substances (PICCS)	Listed

Butyl Glycol Ether

Korea. Existing Chemicals Inventory (KECI)	Listed
China. Inventory of Existing Chemical Substances (IECSC)	Listed
Mexico. National Inventory of Chemical Substances (INSQ)	Listed
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

HAZARD RATINGS

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

THE DATA AND INFORMATION CONTAINED HEREIN ARE BEING FURNISHED FOR INFORMATIONAL PURPOSES ONLY, UPON THE EXPRESS CONDITION THAT EACH CUSTOMER SHALL MAKE ITS OWN ASSESSMENT OF APPROPRIATE USE AND APPROPRIATE SHIPPING, TRANSFER AND STORAGE MATERIALS AND PROCEDURES FOR SASOL CHEMICALS (USA) LLC'S PRODUCTS. ALTHOUGH BASED ON INFORMATION SOURCES WHICH SASOL CHEMICALS (USA) LLC CONSIDERS ACCURATE AND RELIABLE, SASOL CHEMICALS (USA) LLC MAKES NO WARRANTY, EITHER EXPRESS OR IMPLIED, INCLUDING ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, REGARDING THE VALIDITY OF THIS INFORMATION, THE INFORMATION SOURCES UPON WHICH THE SAME ARE BASED, OR THE RESULTS TO BE OBTAINED, AND EXPRESSLY DISCLAIMS LIABILITIES FOR DAMAGES OR INJURIES RESULTING FROM THE USE THEREOF.
