MATERIAL SAFETY DATA SHEET

Ethylene glycol monobutyl ether

Effective Date: 2026/04/08

Ethylene glycol monobutyl ether(EB\BCS);BUTYL GLYCOL (BG);BUTYL GLYCOL ETHER (BGE)

Section 1 Product and Company Identification

Product Identifier

Product Name	Ethylene glycol monobutyl ether(EB\BCS);BUTYL GLYCOL (BG);BUTYL GLYCOL ETHER (BGE)
Synonyms	Butyl Glycol Ether(BGE)
CAS No.	111-76-2
EC No.	203-905-0
Molecular Formula	C6H14O2

Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Relevant Identified Uses Mainly used as the solvent for nitrocellulose, synthetic resin, painting, enamel, grease and paint remover. It is used as intermediate in painting industry, enamels, adhesives, printing industry, brake fluid, leather, textile, cleaning agent, etc. It can also be used as dispersing agent of pigment, solvent for cleaning and cutting oil and organic synthetic intermediate, assistant solvent of mineral oil emulsion and analysis reagent.

Uses Advised Against Please consult manufacturer.

Details of the Supplier of the Safety Data Sheet

COSMO CHEMISTRY

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Surat, Gujarat, India – 395006
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Section 2 Hazards Identification

Hazard class and label elements of the product according to GHS (the tenth revised edition):

GHS Hazard Class

Flammable Liquids Category 4
Acute Toxicity – Oral Category 4
Corrosion/Irritation Category 2
Serious Eye Damage/Eye Irritation Category 2
Acute Toxicity – Inhalation Category 3

GHS Label Elements

Pictogram

Signal Word Danger

Hazard Statements

H227 Combustible liquid
H302 Harmful if swallowed
H315 Causes skin irritation
H319 Causes serious eye irritation
H331 Toxic if inhaled

Precautionary Statements

Prevention

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 Wash hands and other parts of the body thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or with adequate ventilation.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

P264+P265 Wash hands and other parts of the body thoroughly after handling. Do not touch eyes.

Response

P319 Get emergency medical help immediately.
P321 Specific treatment (see measures on this label).
P330 Rinse mouth.
P301+P317 IF SWALLOWED: Get medical help.
P302+P352 IF ON SKIN: Wash with plenty of water.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P332+P317 If skin irritation occurs: Get medical help.
P337+P317 If eye irritation persists: Get medical help.
P362+P364 Take off contaminated clothing and wash it before reuse.
P370+P378 In case of fire: Use suitable extinguishing medium to extinguish.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P403 Store in a well-ventilated place.
P405 Store locked up.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Section 3 Composition/Information on Ingredients

Component	**Concentration (weight percent, %)**	**CAS No.**	**EC No.**
Ethylene glycol monobutyl ether(EB\BCS);BUTYL GLYCOL (BG);BUTYL GLYCOL ETHER (BGE)	99	111-76-2	203-905-0
Water	1	7732-18-5	231-791-2

Section 4 First Aid Measures

Description of First Aid Measures

General Advice Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance.

Eye Contact Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable.

Skin Contact Take off contaminated clothing and shoes immediately. Wash off with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable.

Ingestion Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately.

Inhalation Move victim into fresh air. If breathing is difficult, give oxygen. Do not use mouth to mouth resuscitation if victim ingested or inhaled the substance. If not breathing, give artificial respiration and consult a physician immediately.

Protecting of First-aiders Ensure that medical personnel are aware of the substance involved. Take precautions to protect themselves and prevent spread of contamination.

Most Important Symptoms and Effects, both Acute and Delayed

1 Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.

Indication of Any Immediate Medical Attention and Special Treatment Needed

1 Treat symptomatically.
2 Symptoms may be delayed.

Section 5 Fire Fighting Measures

Extinguishing Media

Suitable Extinguishing Media Dry chemical, carbon dioxide or alcohol-resistant foam.
Unsuitable Extinguishing Media Do not use a solid water stream as it may scatter or spread fire.

Specific Hazards Arising from the Substance or Mixture

1 May emit poisonous fumes on fire.
2 Containers may explode when heated.

3 Fire exposed containers may vent contents through pressure relief valves.
4 May expansion or decompose explosively when heated or involved in fire.

Advice for Firefighters

1 As in any fire, wear self-contained breathing apparatus (MSHA/NIOSH approved or equivalent) and full protective gear.
2 Fight fire from a safe distance, with adequate cover.
3 Prevent fire extinguishing water from contaminating surface water or the ground water system.

Section 6 Accidental Release Measure

Personal Precautions, Protective Equipment and Emergency Procedures

1 Ensure adequate ventilation. Remove all sources of ignition.
2 Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.
3 Use personal protective equipment. Avoid breathing vapours, mist, gas or dust.

Environmental Precautions

1 Prevent further leakage or spillage if safe to do so.
2 Discharge into the environment must be avoided.

Methods and Materials for Containment and Cleaning Up

1 Absorb spilled material in dry sand or inert absorbent. In case of large amount of spillage, contain a spill by bunding.
2 Adhered or collected material should be promptly disposed of, in accordance with appropriate

laws and regulations.

3 Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

Section 7 Handling and Storage

Precautions for Handling

1 Handling is performed in a well ventilated place.
2 Wear suitable protective equipment.
3 Avoid contact with skin and eyes.
4 Keep away from heat/sparks/open flames/hot surfaces.
5 Take precautionary measures against static discharges.

Precautions for Storage

1 Keep containers tightly closed.
2 Keep containers in a dry, cool and well-ventilated place.
3 Keep away from heat/sparks/open flames/hot surfaces.
4 Store away from incompatible materials and foodstuff containers.

Section 8 Exposure Controls/Personal Protection

Control Parameters

Occupational Exposure Limit Values

Component	Country/Region	Limit Value - Eight Hours ppm	mg/m³	Limit Value - Short Term ppm	mg/m³
Ethylene glycol monobutyl ether(EB\BCS);BUTYL GLYCOL (BG);BUTYL GLYCOL ETHER (BGE) 111-76-2	USA - OSHA	50	240	-	-
	South Korea	20	97	-	-
	Ireland	20	98	50	246
	Germany (AGS)	10	49	40	196
	Denmark	20	98	40	196
	Australia	20	96.9	50	242

Biological Limit Values
No information available

Monitoring Methods

1 EN 14042 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.
2 GBZ/T 160 Determination of toxic substances in workplace air (Series effective standard) and GBZ/T 300 Determination of toxic substances in workplace air (Series standard).

Engineering Controls

1 Ensure adequate ventilation, especially in confined areas.
2 Ensure that eyewash stations and safety showers are close to the workstation location.
3 Use explosion-proof electrical/ventilating/lighting/equipment.
4 Set up emergency exit and necessary risk-elimination area.

Personal Protection Equipment

Eye Protection Tightly fitting safety goggles (approved by EN 166(EU) or NIOSH (US).
Hand Protection Wear protective gloves (such as butyl rubber), passing the tests according to EN 374(EU), US F739 or AS/NZS 2161.1 standard.

Respiratory protection If exposure limits are exceeded or irritation or other symptoms are experienced, use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges.

Skin and Body Protection Wear fire/flame resistant/retardant clothing and antistatic boots.

Section 9 Physical and Chemical Properties

Appearance: Colorless transparent liquid Odor: No information available
Odor Threshold: No information available pH: No information available
Melting Point/Freezing Point (℃): No information available Initial Boiling Point and Boiling Range (℃): No information available
Flash Point (℃) (Closed Cup): 63.0 Evaporation Rate: No information available
Flammability: Not applicable Upper/lower explosive limits(%(v/v)): Lower limit: 1.1; Upper limit: 10.6
Vapor Pressure (KPa): 0.117 (25℃) Relative Vapour Density(Air=1): 4.08
Relative Density(Water=1): 0.9 (20℃) Solubility: Miscible with water
n-Octanol/Water Partition Coefficient: 0.8 Auto-Ignition Temperature(℃): 238
Decomposition Temperature (℃): No information available Kinematic Viscosity (mm^2/s): No information available

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Section 10 Stability and Reactivity

Reactivity Contact with incompatible substances can cause decomposition or other chemical reactions.

Chemical Stability Stable under proper operation and storage conditions.

Possibility of Hazardous Reactions In contact with active metals (alkali metals, Na, Ca etc.) causes a reaction and release hydrogen gas, heat, flame and spark.

Conditions to Avoid Incompatible materials, heat, flame and spark.

Incompatible Materials Alkali, sodium, calcium, and other active metal, halogen, metal oxide, nonmetal oxide, acyl halide and metal phosphide.

Hazardous Decomposition products Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11 Toxicological Information

Acute Toxicity

Component	CAS No.	LD50(Oral)	LD50(Dermal)	LC50(Inhalation, 4h)
Ethylene glycol monobutyl ether(EB\BCS);BUTYL GLYCOL (BG);BUTYL GLYCOL ETHER (BGE)	111-76-2	470mg/kg(Rat)	220mg/kg(Rabbit)	2.175mg/L(Rat)

Skin Corrosion/Irritation
Causes skin irritation(Category 2)

Serious Eye Damage/Irritation
No information available

Skin Sensitization
No information available

Respiratory Sensitization
No information available

Germ Cell Mutagenicity
No information available

Carcinogenicity

ID	CAS No.	Component	IARC	NTP
1	111-76-2	Ethylene glycol monobutyl ether(EB\BCS);BUTYL GLYCOL (BG);BUTYL GLYCOL ETHER (BGE)	Category 3	Not Listed
2	7732-18-5	Water	Not Listed	Not Listed

Reproductive Toxicity
No information available

Reproductive Toxicity (Additional)
No information available

STOT-Single Exposure
No information available

STOT-Repeated Exposure
No information available

Aspiration Hazard
No information available

Section 12 Ecological Information

Acute Aquatic Toxicity

Component	CAS No.	Fish	Crustaceans	Algae
Ethylene glycol monobutyl ether(EB\BCS);BUTYL GLYCOL (BG);BUTYL GLYCOL ETHER (BGE)	111-76-2	LC50: 1370mg/L (96h)(Fish)	EC50: >1000mg/L (48h)	ErC50: >1000mg/L (72h)

Chronic Aquatic Toxicity

Component	CAS No.	Fish	Crustaceans	Algae
Ethylene glycol monobutyl ether(EB\BCS);BUTYL GLYCOL (BG);BUTYL GLYCOL ETHER (BGE)	111-76-2	No information available	NOEC: >100mg/L	NOEC: 130mg/L

Others

Persistence and Degradability No information available
Bioaccumulative Potential No information available
Mobility in Soil No information available

Results of PBT and vPvB Assessment Ethylene glycol monobutyl ether(EB\BCS);BUTYL GLYCOL (BG);BUTYL GLYCOL ETHER (BGE) does not meet the criteria for PBT and vPvB according to Regulation (EC) No 1907/2006, annex XIII.

Section 13 Disposal Considerations

Waste Chemicals Before disposal should refer to the relevant national and local laws and regulation.

Contaminated Packaging Containers may still present chemical hazard when empty. Keep away from hot and ignition source of fire. Return to supplier for recycling if possible.

Disposal Recommendations Refer to Waste chemicals and Contaminated packaging.

Section 14 Transport Information

Transporting Label

Marine pollutant None

UN Number 2810

UN Proper Shipping Name TOXIC LIQUID, ORGANIC, N.O.S.

Transport Hazard Class 6.1

Transport Subsidiary Hazard Class NONE

Packing Group III

Section 15 Regulatory Information

International Chemical Inventory

Component	EINECS	TSCA	DSL	IECSC	NZIoC	PICCS	KECL	AICS	ENCS
Ethylene glycol monobutyl ether(EB\BCS);BUTYL GLYCOL (BG);BUTYL GLYCOL ETHER (BGE)	√	√	√	√	√	√	√	√	√
Water	√	√	√	√	√	√	√	√	√

Note
"√" Indicates that the substance included in the regulations
"×" That no data or included in the regulations

Section 16 Additional Information

Disclaimer

This Safety Data Sheet (SDS) was prepared according to UN GHS (the 10th revised edition). The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user's reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.