

Safety Data Sheet

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

Version : V2.0.0.1

Report No. : DKM

Creation Date : 2021/11/10

Revision Date : 2021/11/10

*Prepared according to UN GHS (the 8th revised edition)

1 Identification

Product identifier

Product Name	BUTYL GLYCOL (BG);Ethylene glycol monobutyl ether(EB\BCS)
CAS No.	111-76-2
EC No.	203-905-0
Molecular Formula	C ₆ H ₁₄ O ₂

Recommended use of the product and restrictions on use

Relevant identified uses	Please consult manufacturer.
Uses advised against	Please consult manufacturer.

Details of the supplier

Name of the company	Hefei TNJ Chemical Industry Co.,Ltd.
Address of the company	D1508 Xincheng Business Center,Qianshan Road, Hefei China
Post code	230022
Telephone number	0551-65418677
Fax number	0551-65418697
E-mail address	info@tnjchem.com

Emergency phone number


Emergency phone number	0551-65418678
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2 Hazard(s) identification

Hazard classification according to GHS

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

GHS Label elements

Hazard pictograms	
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

Precautionary statements

◆ Prevention

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261	Avoid breathing gas/mist/vapour/spray.
P264	Wash face and hands 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

P317	Get medical help.
P321	Specific treatment (see related instructions 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 appropriate extinguishing media mentioned in Section 5 of the SDS 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.

◆ Storage

P403	Store in a well-ventilated place.
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◆ Disposal

P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
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Hazard description

◆ Physical and chemical hazards

	Combustible liquids in case of flame and high fever.
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◆ Health hazards

Inhaled	Cough. Dizziness. Drowsiness. Headache. Nausea. Weakness.
Ingestion	Abdominal pain. Diarrhoea. Nausea. Vomiting. (Further see Inhalation).
Skin Contact	MAY BE ABSORBED! Dry skin. (Further see Inhalation).
Eye	Redness. Pain. Blurred vision.

◆ Environmental hazards

	Please refer to 12th chapter of SDS.
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3 Composition/information on ingredients**Substance/mixture**

	Substance
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Component	CAS No.	EC No.	Concentration (wt, %)
Ethylene glycol monobutyl ether (EB\BCS); BUTYL GLYCOL (BG)	111-76-2	203-905-0	≥ 99

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	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.
Skin contact	Remove contaminated clothes. Rinse skin with plenty of water or shower. Refer for medical attention.
Ingestion	Rinse mouth. Give one or two glasses of water to drink. Refer for medical attention.
Inhalation	Fresh air , rest. Refer for medical attention.
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/effects, acute and delayed

1	Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure.
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Indication of any immediate medical attention and special treatment needed

1	Treat symptomatically.
2	Symptoms may be delayed.

5 Fire-fighting measures**Extinguishing media**

Suitable extinguishing media	Use extinguishing media suitable for surrounding area.
Unsuitable extinguishing media	There is no restriction on the type of extinguisher which may be used.

Specific hazards arising from the substance or mixture

1	Development of hazardous combustion gases or vapor possible in the event of fire.
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| 2 | May expansion or decompose explosively when heated or involved in fire. |
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Special protective equipment and precautions for fire-fighters

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| 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. |

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

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| 1 | Use personal protective equipment,do not breathe gas/mist/vapour/spray. |
| 2 | Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges. |
| 3 | Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. |

Environmental precautions

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| 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

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| 1 | Cut off the source of the leak as much as possible. |
| 2 | Keep leaks in a ventilated place. |
| 3 | Absorb spilled material in dry sand or inert absorbent. In case of large amount of spillage, contain a spill by bunding. |
| 4 | Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. |
| 5 | Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container. |

7 Handling and storage

Precautions for safe handling

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| 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. |

Conditions for safe storage, including any incompatibilities

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| 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. |

8 Exposure controls/personal protection

Control parameters

Component	Country/Region	Limit value - Eight hours		Limit value - Short term	
		ppm	mg/m ³	ppm	mg/m ³

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

Biological limit values	No relevant regulations
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◆ 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 300.1~GBZ/T 300.160-2017; GBZ/T 300.161~GBZ/T 300.164-2018 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

General requirement	
Eye protection	Must wear appropriate safety goggles.
Hand protection	Must wear anti static chemical protective gloves.
Respiratory protection	Must wear appropriate personal respiratory protective equipment.
Skin and body protection	Must wear anti static chemical protective clothing and anti static shoes.

9 Physical and chemical properties and safety characteristics

Physical and chemical properties

Physical state	Liquid
Colour	Colorless clear
Odor	No information available
Odor threshold	No information available
pH	No information available
Melting point/freezing point(°C)	-75
Initial boiling point and boiling range(°C)	171
Flash point(Closed cup,°C)	61
Evaporation rate	No information available
Flammability	Combustible
Upper/lower explosive	Upper limit : 12.7 ; Lower limit : 1.1

limits[%(v/v)]	
Vapor pressure	0.1kPa (20°C)
Relative vapour density(Air = 1)	4.1
Relative density(Water=1)	0.9 (20°C)
Solubility	Miscible with water
n-octanol/water partition coefficient	0.830
Auto-ignition temperature(°C)	238
Decomposition temperature(°C)	No information available
Kinematic viscosity	No information available
Particle characteristics	Not applicable

10 Stability and reactivity

| 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	No information available.
Conditions to avoid	Incompatible materials, heat, flame and spark.
Incompatible materials	No information available.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11 Toxicological information

| Acute toxicity

Component	LD ₅₀ (oral)	LD ₅₀ (dermal)	LC ₅₀ (inhalation,4h)
Ethylene glycol monobutyl ether (EB\BCS); BUTYL GLYCOL (BG)	470mg/kg(Rat)	220mg/kg(Rabbit)	2.175mg/L(Rat)

| Carcinogenicity

Component	List of carcinogens by the IARC Monographs	Report on Carcinogens by NTP
Ethylene glycol monobutyl ether (EB\BCS); BUTYL GLYCOL (BG)	Category 3	Not Listed

| Others

Ethylene glycol monobutyl ether (EB\BCS); BUTYL GLYCOL (BG) (Component)	
Skin corrosion/irritation	Causes skin irritation(Category 2)
Serious eye damage/irritation	Causes serious eye irritation(Category 2)
Skin sensitization	Based on available data, the classification criteria are not met
Respiratory sensitization	Based on available data, the classification criteria are not met

Reproductive toxicity	Based on available data, the classification criteria are not met
STOT-single exposure	Based on available data, the classification criteria are not met
STOT-repeated exposure	Based on available data, the classification criteria are not met
Aspiration hazard	Based on available data, the classification criteria are not met
Germ cell mutagenicity	Based on available data, the classification criteria are not met
Reproductive toxicity(additional)	Based on available data, the classification criteria are not met

12 Ecological information

| Acute aquatic toxicity

Component	Fish	Crustaceans	Algae
Ethylene glycol monobutyl ether (EB\BCS); BUTYL GLYCOL (BG)	LC ₅₀ : 1370mg/L (96h)(Fish)	EC ₅₀ : >1000mg/L (48h)(Crustaceans)	ErC ₅₀ : >1000mg/L (72h)(Algae)

| Chronic aquatic toxicity

Component	Fish	Crustaceans	Algae
Ethylene glycol monobutyl ether (EB\BCS); BUTYL GLYCOL (BG)	No information available	NOEC : >100mg/L(Crustaceans)	NOEC : 130mg/L(Algae)

| Persistence and degradability

Persistence and degradability	No information available
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| Bioaccumulative potential

Bioaccumulative potential	No information available
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| Mobility in soil

Mobility in soil	No information available
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| Results of PBT and vPvB assessment

Component	Results of PBT and vPvB assessment [according to (EC) No 1907/2006]
Ethylene glycol monobutyl ether (EB\BCS); BUTYL GLYCOL (BG)	Not PBT/vPvB

13 Disposal considerations

| Disposal considerations

Waste chemicals	Before disposal should refer to the relevant national and local laws and regulation. Recommend the use of incineration disposal.
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 section waste chemicals and contaminated packaging.

14 Transport information**| Label and Mark**

Transporting Label	Not applicable
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| IMDG-CODE

IMDG-CODE	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS
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| IATA-DGR

IATA-DGR	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS
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| UN-ADR

UN-ADR	NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS
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15 Regulatory information**| International chemical inventory**

Component	EINECS	TSCA	DSL	IECSC	NZIoC	PICCS	KECI	AIIC	ENCS
Ethylene glycol monobutyl ether (EB\BCS); BUTYL GLYCOL (BG)	√	√	√	√	√	√	√	√	√

[EINECS]	European Inventory of Existing Commercial Chemical Substances
[TSCA]	United States Toxic Substances Control Act Inventory
[DSL]	Canadian Domestic Substances List
[IECSC]	China Inventory of Existing Chemical Substances
[NZIoC]	New Zealand Inventory of Chemicals
[PICCS]	Philippines Inventory of Chemicals and Chemical Substances
[KECI]	Korea Existing Chemicals Inventory
[AIIC]	Australia. Inventory of Industrial Chemicals (AIIC)
[ENCS]	Japan Inventory of Existing & New Chemical Substances

Note:

- “√” Indicates that the substance included in the regulations.
 “x” No data or not included in the regulations.

16 Other information**| Information on revision**

Creation Date	2021/11/10
Revision Date	2021/11/10
Reason for revision	-

| Disclaimer

This Safety Data Sheet (SDS) was prepared according to UN GHS (the 8th 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.