

This safety data sheet was created pursuant to the requirements of:
UK REACH Regulations (SI 2019/758 as amended)

Supersedes date 11-Dec-2019

Revision date 30-Jul-2024

Revision Number 2

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Code(s)	11621
Safety data sheet number	11621
Product Name	BUTYL TRIGLYCOL
EC Number	907-996-4
Synonyms	TEGBE, BUTYL TRIGLYCOL, BTGE MIX, BUTYLTRIGLYCOL, REACTION MASS OF 2-(2-(2-BUTOXYETHOXY)ETHOXY)ETHANOL AND 3,6,9,12-TETRAOXAHEXADECAN-1-OL
Pure substance/mixture	Substance

Contains 2-[2-(2-BUTOXYETHOXY)ETHOXY]ETHANOL

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use	Industrial use Coatings Brake fluid Oilfield applications
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1.3. Details of the supplier of the safety data sheet

Supplier

Univar Solutions UK Ltd
Aquarius House
6 Mid Point Business Park
Bradford
GBR

For further information, please contact

E-mail address	SDS.EMEA@univarsolutions.com
Non-Emergency Telephone Number	+44 1274 267300 / +44 1274 267306

1.4. Emergency telephone number

Emergency Telephone	SGS - +32 (0)3 575 55 55 (24h)
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Serious eye damage/eye irritation	Category 1 - (H318)
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2.2. Label elements

Contains 2-[2-(2-BUTOXYETHOXY)ETHOXY]ETHANOL

**Signal word**

Danger

Hazard statements

H318 - Causes serious eye damage

Precautionary statements

P280 - Wear eye protection/ face protection

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310 - Immediately call a POISON CENTER or doctor

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients**3.1 Substances**

Chemical name	Weight-%	EC No (EU Index No)	UK REACH registration number	Classification according to GB CLP (SI 2020/1567 as amended)	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
2-[2-(2-BUTOXYETHOXY)ETHOXY]ETHANOL 143-22-6	70-85%	205-592-6	-	Eye Dam. 1 (H318)	Eye Dam. 1 :: C>=30% Eye Irrit. 2 :: 20%<=C<30%	-	-
3,6,9,12 - TETRAOXAHEXADECAN-1-OL 1559-34-8	18-30%	216-322-1	-	Eye Irrit. 2 (H319)	-	-	-
2-(2-BUTOXYETHOXY)ETHANOL 112-34-5	0-3.5%	203-961-6 (603-096-00-8)	-	Eye Irrit. 2 (H319)	-	-	-

Full text of H- and EUH-phrases: see section 16

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (UK REACH Article 59)

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice	Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.
Inhalation	Remove to fresh air. Get medical attention immediately if symptoms occur.
Eye contact	Get immediate medical attention. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area.
Skin contact	Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a doctor.
Self-protection of the first aider	Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

4.2. Most important symptoms and effects, both acute and delayed

Symptoms	Burning sensation.
Eyes	Burning sensation. May cause permanent damage if eye is not immediately irrigated.
Ingestion	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea

4.3. Indication of any immediate medical attention and special treatment needed

Note to doctors	Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Large Fire	CAUTION: Use of water spray when fighting fire may be inefficient.
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products	Carbon oxides. May emit toxic fumes under fire conditions.
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5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Ensure adequate ventilation.
Other information	Refer to protective measures listed in Sections 7 and 8.
For emergency responders	Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions	Prevent further leakage or spillage if safe to do so.
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6.3. Methods and material for containment and cleaning up

Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Collect with absorbent, non-combustible material into suitable containers.
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

Reference to other sections	See section 8 for more information. See section 13 for more information.
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SECTION 7: Handling and storage**7.1. Precautions for safe handling**

Advice on safe handling	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Eliminate all ignition sources if safe to do so. Ensure adequate ventilation.
General hygiene considerations	Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Wash face, hands and any exposed skin thoroughly after handling. Ensure that eyewash stations and safety showers are close to the workstation location.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children.
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7.3. Specific end use(s)

Specific use(s)	See section 1 for more information.
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Risk Management Methods (RMM)	The information required is contained in this Safety Data Sheet.
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SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Exposure Limits**

Chemical name	United Kingdom
2-(2-BUTOXYETHOXY)ETHANOL 112-34-5	TWA: 10 ppm TWA: 67.5 mg/m ³ STEL: 15 ppm STEL: 101.2 mg/m ³

Biological occupational exposure limits This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) - Workers No information available

Derived No Effect Level (DNEL) - General Public No information available.

Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure controls

Engineering controls Apply technical measures to comply with the occupational exposure limits. Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment

Eye/face protection Tight sealing safety goggles. Use eye protection according to EN 166.

Hand protection Wear suitable gloves. Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves. Gloves must conform to standard EN 374.

Gloves			
Duration of contact	PPE - Glove material	Glove thickness	Break through time
	Neoprene gloves Butyl rubber		

Skin and body protection Wear suitable protective clothing.

Respiratory protection When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Gas filter, type A.

General hygiene considerations Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Wash face, hands and any exposed skin thoroughly after handling. Ensure that eyewash stations and safety showers are close to the workstation location.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Liquid
Colour	Colourless
Odour	Mild.
Odour threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
Melting point / freezing point	-24 °C	No information available.
Initial boiling point and boiling range	267 °C	No information available.
Flammability		No information available.
Flammability Limit in Air		No information available.
Upper flammability or explosive limits		
Lower flammability or explosive limits		
Flash point	142 °C	No information available.
Autoignition temperature	202 °C	No information available.
Decomposition temperature		No information available.
pH		No information available.
pH (as aqueous solution)		No information available.
Kinematic viscosity		No information available.
Dynamic viscosity	9.4 mPa s @ 20°C	No information available.
Water solubility	Miscible in water 99.17 g/100 ml	No information available.
Solubility(ies)		No information available.
Partition coefficient	log Kow: 0.51	No information available.
Vapour pressure	0.00014 hPa @ 20°C	No information available.
Relative density	0.992 @ 20°C	No information available.
Bulk density	992 kg/m ³ @ 20°C	No information available.
Liquid Density	No information available	No information available.
Relative vapour density	7.1	No information available.
Particle characteristics		No information available.
Particle Size	No information available	
Particle Size Distribution	No information available	
Explosive properties	No information available	
Oxidising properties	No information available	

9.2. Other information Evaporation rate < 0.01 (butyl acetate = 1)

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity Stable under recommended storage conditions.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid Very hygroscopic; protect from moisture.

10.5. Incompatible materials

Incompatible materials Strong acids. Strong bases. Strong oxidising agents. Protect from moisture.

10.6. Hazardous decomposition products

Hazardous decomposition products Carbon oxides. May emit toxic fumes under fire conditions.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on likely routes of exposure

Product Information

Inhalation	Specific test data for the substance or mixture is not available.
Eye contact	Specific test data for the substance or mixture is not available. Causes serious eye damage. May cause irreversible damage to eyes.
Skin contact	Specific test data for the substance or mixture is not available. May cause irritation.
Ingestion	Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms Redness. Burning. May cause blindness.

Acute toxicity

Numerical measures of toxicity

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
2-[2-(2-BUTOXYETHOXY)ETH OXY]ETHANOL	= 5300 mg/kg (Rat)	= 3540 mg/kg (Rabbit)	-
3,6,9,12 - TETRAOXAHEXADECAN-1-OL	= 5175 mg/kg (Rat)	> 4000 mg/kg (Rat)	-
2-(2-BUTOXYETHOXY)ETHAN OL	> 2000 mg/kg (Rat)	= 2764 mg/kg (Rabbit)	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	May cause skin irritation.
Serious eye damage/eye irritation	Classification based on data available for ingredients. Causes burns. Causes serious eye damage.
Respiratory or skin sensitisation	Based on available data the classification criteria are not met.

Method	Species	Exposure route	Results
OECD 406	Guinea pig	Dermal	Not a skin sensitiser Read-across

Germ cell mutagenicity Based on available data the classification criteria are not met.

Product Information			
Method	Species	Results	
OECD 473	Hamster	Negative	

Carcinogenicity No information available.

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.

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity Not considered to be harmful to aquatic life.

2-(2-BUTOXYETHOXY)ETHANOL (112-34-5)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
	Leuciscus idus	LC50	> 100 mg/L		
	Daphnia magna	EC50	> 100 mg/L	48 hours	
OECD Test No. 201: Freshwater Algae and Cyanobacteria, Growth Inhibition Test	Scenedesmus subspicatus	EC50	> 100 mg/L	96 hours	

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
2-[2-(2-BUTOXYETHOXY)ETHOXY]ETHANOL	EC50: >500mg/L (72h, Desmodemus subspicatus)	LC50: =2400mg/L (96h, Pimephales promelas)	-	EC50: >500mg/L (48h, Daphnia magna)
3,6,9,12 - TETRAOXAHEXADECAN-1-OL	EC50: >1000mg/L (96h, Pseudokirchneriella subcapitata)	-	-	EC50: >1000mg/L (48h, Daphnia magna)

12.2. Persistence and degradability

Persistence and degradability Readily biodegradable.

2-(2-BUTOXYETHOXY)ETHANOL (112-34-5)

Method	Exposure time	Value	Results
OECD Test No. 301E: Ready Biodegradability: Modified OECD Screening Test (TG 301 E)	28 days	>70% Biodegradation	Readily biodegradable

12.3. Bioaccumulative potential

Bioaccumulation Not likely to bioaccumulate.

Component Information

Chemical name	Partition coefficient
2-[2-(2-BUTOXYETHOXY)ETHOXY]ETHANOL	0.51
2-(2-BUTOXYETHOXY)ETHANOL	1

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment The product does not contain any substance(s) classified as PBT or vPvB.

Chemical name	PBT and vPvB assessment
2-[2-(2-BUTOXYETHOXY)ETHOXY]ETHANOL	The substance is not PBT / vPvB
3,6,9,12 - TETRAOXAHEXADECAN-1-OL	The substance is not PBT / vPvB
2-(2-BUTOXYETHOXY)ETHANOL	The substance is not PBT / vPvB

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products Waste is classified as hazardous waste. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority.

Contaminated packaging Do not reuse empty containers.

SECTION 14: Transport information

IATA

14.1 UN number or ID number	Not regulated
14.2	
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

IMDG

14.1 UN number or ID number	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None
14.7 Maritime transport in bulk according to IMO instruments	No information available

RID

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated

14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

ADR

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****National regulations****Authorisations and/or restrictions on use:**

This product contains one or more substances subject to restriction (UK REACH - Annex XVII).

This product does not contain substances subject to authorisation (UK REACH - Annex XIV).

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorisation per REACH Annex XIV
2-(2-BUTOXYETHOXY)ETHANOL - 112-34-5	Use restricted. See item 55.	-

Persistent Organic Pollutants

Not applicable

Export Notification requirements

Not applicable

Named dangerous substances per COMAH Regulations 2015 (as amended)

Not applicable

The Ozone-Depleting Substances Regulations 2015

Not applicable

The Biocidal Products Regulations 2001 (as amended)

Not applicable

The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (as amended)

Not applicable

Poisons Act 1972 (Explosive Precursors) Regulations (as Amended)

Not applicable

International Inventories

TSCA	Contact supplier for inventory compliance status
DSL/NDL	Contact supplier for inventory compliance status
EINECS/ELINCS	Contact supplier for inventory compliance status
ENCS	Contact supplier for inventory compliance status
IECSC	Contact supplier for inventory compliance status
KECI	Contact supplier for inventory compliance status
PICCS	Contact supplier for inventory compliance status
AIIC	Contact supplier for inventory compliance status

NZIoC

Contact supplier for inventory compliance status

Legend:**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances**ENCS** - Japan Existing and New Chemical Substances**IECSC** - China Inventory of Existing Chemical Substances**KECL** - Korean Existing and Evaluated Chemical Substances**PICCS** - Philippines Inventory of Chemicals and Chemical Substances**AIIC** - Australian Inventory of Industrial Chemicals**NZIoC** - New Zealand Inventory of Chemicals**15.2. Chemical safety assessment****Chemical Safety Report**

A Chemical Safety Assessment has been carried out for this substance

SECTION 16: Other information**Key or legend to abbreviations and acronyms used in the safety data sheet****Full text of H-Statements referred to under section 3**

H318 - Causes serious eye damage

H319 - Causes serious eye irritation

Legend

SVHC: Substances of Very High Concern for Authorisation:

Legend Section 8: Exposure controls/personal protection

TWA TWA (time-weighted average)

Ceiling Maximum limit value

+ Sensitisers

STEL

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STEL (Short Term Exposure Limit)

Skin designation

Revision Note **SDS sections updated 1 3 9 16****Classification procedure**

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute oral toxicity

Acute dermal toxicity

Acute inhalation toxicity - gas

Acute inhalation toxicity - vapour

Acute inhalation toxicity - dust/mist

Skin corrosion/irritation

Serious eye damage/eye irritation

Respiratory sensitisation

Skin sensitisation

Mutagenicity

Carcinogenicity

Reproductive toxicity

STOT - single exposure

STOT - repeated exposure

Acute aquatic toxicity

Chronic aquatic toxicity

Aspiration hazard

Ozone

Method Used

Calculation method

Calculation method

Calculation method

Calculation method

Calculation method

Calculation method

Calculation method

Calculation method

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Calculation method

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)

European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)

European Chemicals Agency (ECHA) (ECHA_API)
Environmental Protection Agency
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
National Institute of Technology and Evaluation (NITE)
Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
U.S. National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
Organisation for Economic Co-operation and Development Screening Information Data Set
World Health Organization

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This material safety data sheet complies with the requirements of UK REACH Regulations (SI 2019/758 as amended)
Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

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 Safety Data Sheet