SAFETY DATA SHEET
Butyl Diglycol Ether

Issued: 20/11/2026
Revision No: 5

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

Product Identifier:

Trade Names: Butyl Glycol Ether

REACH Registration Number: 01-2119475108-36-XXXX

Substance Name: 2-butoxyethanol

CAS Number: 111-76-2

EINECS Number: 203-905-0

Relevant identified uses of the substance or mixture and uses advised against:

Use of the substance/mixture: Industrial use, raw material for washing and cleaning agents, solvent, raw material for printing inks and printing ink additives.

Details of the supplier of the safety data sheet:

Company name: Nexchem Ltd
Unit 3 Barshaw Park
Leycroft Road
Leicester
LE4 1ET
Tel: 0116 2311130
24/7 Emergency Tel: 0800 246 1274
Email: sales@nexchem.co.uk

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture:

Classification (REGULATION (EC) No 1272/2008):

Acute toxicity, Category 4 H302: Harmful if swallowed.

Acute toxicity, Category 3 H331: Toxic if inhaled

Skin irritation, Category 2 H315: Causes skin irritation.

Eye irritation, Category 2 H319: Causes serious eye irritation.

Label elements:

Hazard Pictogram:



Signal word(s): Danger

[cont…]

Hazard Statements:
H302 Harmful if swallowed
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.

Precautionary Statements:
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 Wash skin thoroughly after handling
P280 Wear protective gloves/eye protection/face protection.
P304 + P340 + P311 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTRE/doctor if you feel unwell.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.

Hazardous components which must be listed on the label: 2-butoxyethanol

Other hazards: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Mixture: Chemical nature stabilised by the addition of an inhibitor.

Chemical name	CAS No. EC No. Index No. REACH reg No.	Classification	Concentration (%w/w)
2-butoxyethanol	111-76-2 203-905-0 603-014-00-0 01-2119475108-36-XXXX	Acute Tox. 4; H302 Acute Tox. 3; H331 Skin Irrit. 2; H315 Eye Irrit. 2; H319	>=90 - <100

For the full text of the H-Statements: See Section 16.

4. FIRST AID MEASURES

Description of first aid measures:

General advice: Take off all contaminated clothing immediately. If you feel unwell, seek medical advice (show the label where possible).

Inhalation: Provide fresh air. Call a physician immediately.

Skin contact: Wash off with plenty of water immediately, seek medical advice if necessary. Take off all contaminated clothing immediately

Eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Ingestion: Rinse mouth. Call a physician immediately.

Most import symptoms and effects, both acute and delayed:

Risks: Harmful if swallowed, toxic if inhaled. Causes skin irritation. Causes serious eye irritation.

Indication of any immediate medical attention and special treatment needed:
For specialist advice physicians should contact the Poisons Information Service.

[cont…]

5. FIRE-FIGHTING MEASURES

Extinguishing Media: Suitable extinguishing media: Water spray, dry powder, foam, carbon dioxide (CO2).

Special hazards arising from the substance or mixture:

Specific hazards during firefighting: No information available.

Advice for fire-fighters:

Further information: Standard procedure for chemicals fires. In the event of fire, cool tanks with water spray.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Personal precautions: Use personal protective equipment.

Environmental precautions: Avoid subsoil penetration. Do not flush into surface water or sanitary sewer system.

Methods and material for containment and cleaning up:

Method for cleaning up: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

Reference to other sections: For personal protection see Section 8.

7. HANDLING AND STORAGE

Precautions for safe handling:

Advice on safe handling: Wear personal protective equipment. Avoid contact with skin and eyes.

Advice on protection against fire and explosion: Take precautionary measures against static discharges.

Conditions for safe storage, including any incompatibilities: No further information.

Specific end use(s): Consult the technical guidelines for the use of the substance/mixture.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters:

Component	CAS number	Value	Control Parameters	Basis
2-butoxyethanol	111-76-2	TWA	25 ppm 123 mg/m^3	GB EH40
		STEL	50 ppm 246 mg/m^3	GB EH40
	Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			
European occupational exposure limits				
2-butoxyethanol	111-76-2	TWA	20 ppm 98 mg/m^3	2003/39/EC
		STEL	50 ppm 246 mg/m^3	2003/39/EC
	Skin: Identifies the possibility of significant uptake through the skin. Indicative			

[cont…]

Biological occupational exposure limits			
Substance name	**Control parameters**	**Sampling time**	**Basis**
2-butoxyethanol	butoxyacetic acid: 240 millimoles per mole creatinine (Urine)	After shift	GB EH40 BAT

Derived No Effect Level (DNEL):

2-(2-butoxyethoxy)ethanol:

End use	Routes of exposure	Potential health effects	Value
Professional use	Inhalation	Long-term exposure - systemic effects	98 mg/m^3
		Acute/short-term exposure - systemic effects	1091 mg/m^3
		Long-term exposure – local effects	
	Remarks: No hazard identified		
Professional use	Inhalation	Acute/short-term exposure – local effects	246 mg/m^3
	Dermal	Long-term exposure – systemic effects	
	Remarks: Low hazard		
Professional use	Dermal	Acute/short-term exposure - systemic effects	
		Long-term exposure – local effects	
	Remarks: No hazard identified		
Professional use	Dermal	Acute/short-term exposure – local effects	
	Eye contact	Local effects	
	Remarks: Medium hazard		
Consumer use	Inhalation	Long-term exposure – systemic effects	59 mg/m^3
		Acute/short-term exposure - systemic effects	426 mg/m^3
		Long-term exposure – local effects	
		Acute/short-term exposure – local effects	147 mg/m^3
	Remarks: No hazard identified		
Consumer use	Dermal	Long-term exposure – systemic effects	
		Acute/short-term exposure - systemic effects	
		Long-term exposure – local effects	
	Remarks: No hazard identified		
Consumer use	Dermal	Acute/short-term exposure – local effects	
	Oral	Long-term exposure – systemic effects	6.3 mg/kg bw/day
	Oral	Acute/short-term exposure - systemic effects	26.7 mg/kg bw/day
	Eye contact	Local effects	
	Remarks: Medium hazard		

[cont…]

Predicted No Effect Concentrations (PNEC):

Substance name	Environmental compartment	Value
2-butoxyethanol	Fresh water	
	Remarks: no hazard identified	
	Sea water	
	Remarks: no hazard identified	
	Fresh water sediment	
	Remarks: no hazard identified	
	Sea sediment	
	Remarks: no hazard identified	
	Soil	
	Remarks: no hazard identified	
	Intermittent use/release	
	Remarks: no hazard identified	
	Sewage treatment plant	66 mg/l
	Food	
	Remarks: No hazard identified	

Exposure controls:

Personal protective equipment:

Respiratory protection: In inadequately ventilated areas, where workplace limits are exceeded, where unpleasant odours exist or where aerosols are in use, or smoke and mist occur, use self-contained breathing apparatus or breathing apparatus with a type A filter or appropriate combined filter (e.g. where aerosols are in use, or smoke and mist occur, A-P2 or ABEK-P2), in compliance with EN 141.

Hand protection: The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other., Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Be aware that in daily use the durability of a chemical resistant protective glove can be notably shorter than the breakthrough time measured according to EN 374, due to the numerous outside influences (e.g. temperature).

Gloves suitable for permanent contact:

Material: Fluorinated rubber

Break through time: >= 480 min

Layer thickness: 0.4 mm

Material: Butyl-rubber

Break through time: >= 480 min

Layer thickness: 0.5 mm

Unsuitable glove material: Natural rubber/natural latex, polychloroprene, nitrile rubber/nitrile latex, polyvinylchloride

Eye protection: Tightly fitting safety goggles

Skin and body protection: Wear suitable protective equipment.

Protective measures: Avoid contact with eyes. Wear suitable gloves and eye/face protection.

Environmental Exposure Controls:

General advice: Avoid subsoil penetration. Do not flush into surface water or sanitary sewer system.

[cont…]

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties:

Physical state:	Liquid (20°C, 1,013 hPa)
Colour:	Colourless
Odour:	Mild
Odour threshold:	No valid method available
pH:	20°C, 6 – 7; 10g/l
Melting point/range:	-75°C, 1,013 hPa
Boiling point/boiling range:	ca. 171°C; 1,013 hPa
Flash point:	ca. 67°C; 1,013 hPa; DIN 51755
Evaporation rate:	No data available
Flammability:	No data available
Lower explosion limit:	1.1% (V)
Upper explosion limit:	10.6% (V)
Vapour pressure:	1.17 hPa, 25°C
Relative vapour density:	No data available
Density:	0.9 g/cm^3, 20°C
Water solubility:	Completely miscible, 900 g/L, 25°C,

Partition coefficient: n-octanol/water: Log Pow: 0.81; 20°C

Autoignition temperature:	230°C, DIN 51794
Decomposition temperature:	No data available
Viscosity, dynamic:	3.3 mPa.s, 20°C
Explosive properties:	Not expected based on structure and functional groups
Oxidising properties:	Not expected based on structure and functional groups

Other information:

Self-ignition:	230°C, 1,013 hPa

10. STABILITY AND REACTIVITY

Reactivity: No data available.

Chemical stability: No data available.

Possibility of hazardous reactions: No data available.

Conditions to avoid: No data available.

Incompatible materials: No data available.

Hazardous decomposition products: No data available.

[cont…]

11. TOXICOLOGICAL INFORMATION

Acute toxicity: Harmful if swallowed.
Toxic if inhaled.

Product:

Acute oral toxicity: Acute toxicity estimate: 1,200 mg/kg, calculation method

Acute inhalation toxicity: Acute toxicity estimate: 3 mg/l (4 h), calculation method
Test atmosphere: vapour

Components:

2-butoxyethanol:

Acute oral toxicity: LD50 (guinea pig): > 300 – 2000 mg/kg. Information taken from reference works and the literature.

Acute toxicity estimate: 1,200 mg/kg

Method: Acute toxicity estimates according to Regulation (EC) No. 1272/2008

Acute inhalation toxicity: LC50 (Rat): 3 mg/l, exposure time: 4 h, test atmosphere: vapour.

Acute dermal toxicity: LD0 (Guinea pig): 2,000 mg/kg, method: OECD Test Guideline 402, symptoms: no symptoms known or expected.

Assessment: Acute dermal toxicity is not expected.

Remarks: Information taken from reference works and the literature.

Skin corrosion/irritation: Causes skin irritation.

Components:

2-butoxyethanol:

Species: Rabbit

Result: Skin irritation

Remarks: Information taken from reference works and the literature.

Serious eye damage/eye irritation: Causes serious eye irritation.

Components:

2-butoxyethanol:

Species: Rabbit

Method: OECD Test Guideline 405

Result: Eye irritation, remarks: information taken from reference works and the literature.

Respiratory or skin sensitisation:

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

Respiratory sensitisation: Not classified due to lack of data.

Components:

2-butoxyethanol:

Test type: Skin sensitisation

Species: Guinea pig

Method: OECD Test Guideline 406

Result: Not a skin sensitiser.

Remarks: Information taken from reference works and the literature.

Test type: Respiratory sensitisation

Remarks: No data available

[cont…]

Germ cell mutagenicity: Based on available data, the classification criteria are not met.
Components:
2-butoxyethanol:
Genotoxicity in vitro:
Result: Equivocal Conflicting results have been seen in different studies.
Remarks: Information taken from reference works and the literature.
Genotoxicity in vivo:
Remarks: In vivo tests did not show mutagenic effects Information taken from reference works and the literature.
Germ cell mutagenicity:
Assessment: The substance has been tested for mutagenicity and other types of genotoxic effects in in vitro and in vivo experiments and is evaluated as being non-mutagenic.

Carcinogenicity: Based on available data, the classification criteria are not met.
Components:
2-butoxyethanol:
Species: Mouse
Application route: Inhalation
Exposure time: 2 years
NOAEC: 125 ppm
Method: OECD Test Guideline 451
Result: Animal experiments showed a statistically significant number of tumours.
Remarks: Based on available data, the classification criteria are not met. The mechanism or mode of action is not relevant in humans. Information taken from reference works and the literature.
Species: Rat
Application route: Inhalation
Exposure time: 2 years
NOAEC: > 125 ppm
Method: OECD Test Guideline 451
Result: Did not show carcinogenic effects in animal experiments.
Remarks: Information taken from reference works and the literature.
Carcinogenicity - Assessment: Not classifiable as a human carcinogen.

Reproductive toxicity: Based on available data, the classification criteria are not met.
Components:
2-butoxyethanol:
Effects on fertility:
Test type: Two-generation study
Species: Mouse
Application Route: Oral
General Toxicity Parent: NOAEL: 720 mg/kg bw/day
General Toxicity F1: NOAEL: 720 mg/kg bw/day
General Toxicity F2: NOAEL: 720 mg/kg bw/day
Result: Based on available data, the classification criteria are not met.
Remarks: Information taken from reference works and the literature.

[cont…]

Effects on foetal development:

Species:	Rat
Application route:	Oral
General Toxicity Maternal:	NOAEL: 30 mg/kg bw/day
Teratogenicity:	NOAEL: 100 mg/kg bw/day
Result:	Embryotoxic effects and adverse effects on the off-spring were detected only at high maternally toxic doses Remarks: Information taken from reference works and the literature.

Reproductive toxicity - Assessment: Weight of evidence does not support classification for reproductive toxicity, No data available on effects via lactation. No evidence of adverse effects on sexual function and fertility, or on development, based on animal experiments.

STOT-single exposure:	Based on available data, the classification criteria are not met.
Components:	
2-butoxyethanol:	
Assessment:	The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT-repeated exposure:	Based on available data, the classification criteria are not met.
Components:	
2-butoxyethanol:	
Assessment:	The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Repeated dose toxicity:

Components:	
2-butoxyethanol:	
Species:	Rat
LOAEL:	69 mg/kg
Application route:	Oral
Exposure time:	Subchronic toxicity
Target organs:	Liver
Remarks:	Information taken from reference works and the literature.
Species:	Rat
LOAEL:	0.152 mg/l 0.152 mg/l
Application route:	Inhalation
Exposure time:	6 months
Remarks:	Information taken from reference works and the literature.

Aspiration toxicity:	Based on available data, the classification criteria are not met.
Components:	
2-butoxyethanol:	No aspiration toxicity classification
Further information:	
Components:	
2-butoxyethanol:	
Test type:	Toxicokinetics
Remarks:	The substance is readily absorbed through skin, intestinal tract and lungs. Information taken from reference works and the literature.

[cont…]

12. ECOLOGICAL INFORMATION

Toxicity:

Toxicity to fish:

2-butoxyethanol: LC50 (96 h) Oncorhynchus mykiss (rainbow trout):

> 100 mg/l; static test; OECD Test Guideline 203 (literature value)

2-butoxyethanol: LC50 (96 h) Menidia beryllina (Silverside):

> 1250 mg/l; marine test; OECD Test Guideline 203 (literature value)

Toxicity to daphnia and other aquatic invertebrates:

EC50 (Daphnia magna (Water flea)): > 100 mg/l, exposure time: 48 h, test type: static test, method: OECD Test Guideline 202. Information taken from reference works and the literature.

Toxicity to algae/aquatic plants:

EC50 (Pseudokirchneriella subcapitata (green algae)):

> 100 mg/l, end point: growth rate, exposure time: 72 h, test type: static test, method: OECD Test Guideline 201, information taken from reference works and the literature.

EC10 (Pseudokirchneriella subcapitata (green algae)):

308 mg/l, end point: biomass, exposure time: 72 h, test type: static test, method: OECD Test Guideline 201, information taken from reference works and the literature.

Toxicity to microorganisms:

EC10 (activated sludge): 657 mg/l, end point: respiration inhibition, exposure time: 3 h, method: OECD Test Guideline 209, information taken from reference works and the literature.

Toxicity to fish (Chronic toxicity):

NOEC: > 100 mg/l, exposure time: 21 d, species: Danio rerio (zebra fish), test type: semi-static test, method: OECD Test Guideline 204, information taken from reference works and the literature.

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity):

NOEC: > 100 mg/l, end point: Reproduction rate, exposure time: 21 d, species: Daphnia magna (Water flea), test type: semi-static test, method: OECD Test Guideline 211, information taken from reference works and the literature.

Toxicity to soil dwelling organisms: The study is not necessary. unlikely direct and indirect exposure of the soil compartment.

Plant toxicity: The study is not necessary. unlikely direct and indirect exposure of the soil compartment.

Persistence and degradability:

2-butoxyethanol:

Biodegradability: Test type: aerobic, inoculum: activated sludge, result: readily biodegradable, biodegradation: > 60%, exposure time: 28d, method: OECD Test Guideline 301B, information taken from reference works and the literature.

Bio accumulative potential:

2-butoxyethanol: No bioaccumulation is to be expected (log Pow <= 4).

Mobility in soil:

2-butoxyethanol:

Distribution among environmental compartments: log Koc: 0.45 - 0.87

Method: QSAR

Remarks: Highly mobile in soils Information taken from reference works and the literature. [cont…]

Results of PBT and vPvB assessment:

Product: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

2-(2-butoxyethoxy)ethanol: Not persistent, bioaccumulative, and toxic (PBT).
Not very persistent and very bioaccumulative (vPvB).

Other adverse effects:

Product: This substance/mixture does not contain components considered to have endocrine disrupting properties for environment according to UK REACH Article 57(f) at levels of 0.1% or higher.

2-butoxyethanol: Does not have endocrine disrupting properties for the environment.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

Product: Can be incinerated, when in compliance with local regulations.

14. TRANSPORT INFORMATION

UN Number:

ADR/RID/IMDG/IATA: Not classified as dangerous goods

Proper Shipping Name:

ADR/RID/IMDG/IATA: Not classified as dangerous goods
ADN SUBSTANCES WITH A FLASH-POINT ABOVE 60°C AND NOT MORE THAN 100°C

Transport Hazard Class:

ADR/RID/IMDG/IATA: Not classified as dangerous goods

Packing Group:

ADR/RID/IMDG/IATA: Not classified as dangerous goods

Environmental Hazards:

ADR/RID/IMDG/IATA: Not classified as dangerous goods

Special precautions for user: Dangerous goods class 9, Identification-No. 9003 ADN, only when transported by inland waterways tanker.

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

Ship type: 3

Pollution category: Y

[cont…]

15. REGULATORY INFORMATION

Chemical safety assessment: A Chemical safety assessment has been carried out on for this substance.

Note: The regulatory information given above only indicates the principal regulations specifically Applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3:

H302: Harmful if swallowed.
H315: Causes skin irritation.
H319: Causes serious eye irritation.
H332: Harmful if inhaled.

Legal disclaimer: The information contained in this SDS does not constitute a risk assessment, and should not replace the user's own assessment of risks as required by other health and safety legislation. This advice is given by Nexchem Ltd who accept no legal liability for it except otherwise provided by law. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.