

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

#### 1.1. Product identifier

Product form	: Substance
Trade name	: 2-Butoxyethanol (Butyl Glycol)
Chemical name	: 2-butoxyethanol; ethylene glycol monobutyl ether
EC Index-No.	: 603-014-00-0
EC-No.	: 203-905-0
CAS-No.	: 111-76-2
REACH registration No.	: 01-2119475108-36
Product code	: BG
Formula	: C6H14O2

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

##### Relevant identified uses

Main use category	: Industrial use, Professional use
Use of the substance/mixture	: Formulation [mixing] of preparations and/or re-packaging Uses in Coatings Cleaning/washing agents and additives

#### 1.3. Details of the supplier of the safety data sheet

##### Supplier

Valet-Chem Ltd  
Summit Close  
NG17 8GJ Kirkby In Ashfield Nottingham, Nottinghamshire  
United Kingdom  
T T +44 (0) 844 414 0987  
[info@valetchem.co.uk](mailto:info@valetchem.co.uk)

##### Supplier information

Leading Solvents Ireland Ltd  
The Courtyard, Manor House  
3 Church Road  
Malahide, Co.Dubin  
Ireland  
T +353 1 845 7660

#### 1.4. Emergency telephone number

Emergency number : +44 (0) 844 414 0987 (Office hours only)

Country/Area	Organisation	Emergency number
Ireland	National Poisons Information Centre. Beaumont Hospital. PO Box 1297. Beaumont Road 9 Dublin.	+353 1 809 2566 (Healthcare professionals-24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)
United Kingdom	NHS 111/NHS 24/NHS Direct.	111 0845 4647 or call a doctor

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

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

Acute toxicity (inhal.), Category 3	H331
Acute toxicity (oral), Category 4	H302
Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category 2	H319
Full text of H- and EUH-statements: see section 16	

##### Adverse physicochemical, human health and environmental effects

See section 11 for toxicological information. See section 9/10 for physicochemical information. See section 12 for environmental information.

# 2-Butoxyethanol (Butyl Glycol)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 2.2. Label elements

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

Hazard pictograms (CLP) :



GHS06

Signal word (CLP) :

Danger

Hazard statements (CLP) :

H331 - Toxic if inhaled.

H302 - Harmful if swallowed.

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

Precautionary statements (CLP) :

P261 - Avoid breathing spray, vapours.

P264 - Wash hands thoroughly after handling.

P280 - Wear protective clothing, eye protection, face protection.

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

P337+P313 - If eye irritation persists: Get medical advice/attention.

P403+P233 - Store in a well-ventilated place. Keep container tightly closed.

### 2.3. Other hazards

Other hazards which do not result in classification : Flammable liquid with a flash point >60 - <=100 °C. Vapors may produce explosive mixtures with air at temperatures over the flash point.

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Substance type

: Mono-constituent

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
2-butoxyethanol	CAS-No.: 111-76-2 EC-No.: 203-905-0 EC Index-No.: 603-014-00-0 REACH-no: 01-2119475108-36	100	Acute Tox. 3 (Inhalation), H331 (ATE=0.5 mg/l/4h) Acute Tox. 4 (Oral), H302 (ATE=1200 mg/kg bodyweight) Skin Irrit. 2, H315 Eye Irrit. 2, H319

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

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general

: Take off contaminated clothing. Wash contaminated clothing before reuse.

First-aid measures after inhalation

: If inhaled, remove to fresh air and keep at rest in a position comfortable for breathing. If breathing is difficult, give oxygen. Call a physician immediately.

First-aid measures after skin contact

: Wash immediately with plenty of water. Call a physician immediately.

# 2-Butoxyethanol (Butyl Glycol)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

First-aid measures after eye contact	: Rinse immediately with plenty of water (for at least 15 minutes). Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists, consult an eye specialist immediately. Go to an ophthalmic hospital if possible.
First-aid measures after ingestion	: Rinse mouth thoroughly with water. Do NOT induce vomiting unless directed to do so by a physician. If a person vomits when lying on his back, place them in the recovery position. Call a physician immediately.

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

Symptoms/effects after inhalation	: Inhalation may cause irritation (cough, short breathing, difficulty in breathing).
Symptoms/effects after skin contact	: irritation (itching, redness, blistering).
Symptoms/effects after eye contact	: redness, itching, tears.
Symptoms/effects after ingestion	: Ingestion may cause nausea, vomiting and diarrhea. May cause irritation to the digestive tract.

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media	: Use extinguishing media appropriate for surrounding fire. water spray, carbon dioxide (CO <sub>2</sub> ), foam and powder. Use a water spray to cool packaging exposed to fire.
Unsuitable extinguishing media	: high volume water jet.

### 5.2. Special hazards arising from the substance or mixture

Fire hazard	: Incomplete combustion may form toxic pyrolysis products.
Hazardous decomposition products in case of fire	: Carbon dioxide (CO <sub>2</sub> ). carbon monoxide. Toxic fumes may be released.

### 5.3. Advice for firefighters

Precautionary measures fire	: Evacuate area.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
Other information	: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Keep people away from and upwind of spill/leak.
------------------	---

#### For non-emergency personnel

Protective equipment	: Wear personal protective equipment. Avoid contact with eyes, skin and clothing. Do not breathe gas/fumes/vapour/spray. Wear respiratory protection. Keep away unprotected persons.
Emergency procedures	: Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid contact with skin and eyes.

#### For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
----------------------	---

### 6.2. Environmental precautions

Avoid release to the environment. Do not flush into surface water or sewer system. Avoid subsoil penetration. If the product contaminates rivers and lakes or drains inform respective authorities.

# 2-Butoxyethanol (Butyl Glycol)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

### 6.4. Reference to other sections

See Section 1 for emergency contact information.  
See Section 8 for information on personal protective equipment.  
See Section 13 for waste treatment information.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Keep container tightly closed. Use appropriate personal protection equipment (PPE). Avoid contact with eyes, skin and clothing. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Hygiene measures : Handle in accordance with good industrial hygiene and safety procedures.

### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Take precautionary measures against static discharge.

Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed. Keep in an area equipped with solvent resistant flooring.

Incompatible materials : Store away from incompatible materials (see section 10).

Heat and ignition sources : The product is not flammable. Normal measures for preventive fire protection.

Information on mixed storage : Keep away from food, drink and animal feedingstuffs.

Storage area : Store away from heat/moisture.

Special rules on packaging : Keep only in original container.

Packaging materials : Do not store in: Aluminium. Copper. Galvanized steel.

#### Germany

Storage class (LGK, TRGS 510) : LGK 6.1C - Combustible substances of acute toxicity, category 3 / hazardous substances that are toxic or produce chronic effects

Joint storage table

LGK 1	LGK 2A	LGK 2B	LGK 3	LGK 4.1A
LGK 4.1B	LGK 4.2	LGK 4.3	LGK 5.1A	LGK 5.1B
LGK 5.1C	LGK 5.2	LGK 6.1A	LGK 6.1B	LGK 6.1C
LGK 6.1D	LGK 6.2	LGK 7	LGK 8A	LGK 8B
LGK 10	LGK 11	LGK 12	LGK 13	LGK 10-13

Joint storage not permitted for : LGK 1, LGK 2A, LGK 4.1A, LGK 5.1A, LGK 5.1C, LGK 5.2, LGK 6.2, LGK 7

Joint storage with restrictions permitted for : LGK 4.2, LGK 4.3, LGK 5.1B

Joint storage permitted for : LGK 2B, LGK 3, LGK 4.1B, LGK 6.1A, LGK 6.1B, LGK 6.1C, LGK 6.1D, LGK 8A, LGK 8B, LGK 10, LGK 11, LGK 12, LGK 13, LGK 10-13

#### Switzerland

Storage class (LK) : LK 6.1 - Toxic materials

### 7.3. Specific end use(s)

No additional information available

# 2-Butoxyethanol (Butyl Glycol)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### DNEL and PNEC

2-Butoxyethanol (Butyl Glycol) (111-76-2)	
<b>DNEL/DMEL (Workers)</b>	
Acute - systemic effects, inhalation	1091 mg/m <sup>3</sup>
Acute - local effects, inhalation	246 mg/m <sup>3</sup>
Long-term - systemic effects, inhalation	98 mg/m <sup>3</sup>
<b>DNEL/DMEL (General population)</b>	
Acute - systemic effects, inhalation	426 mg/m <sup>3</sup>
Acute - systemic effects, oral	26.7 mg/kg bodyweight/day
Acute - local effects, inhalation	147 mg/m <sup>3</sup>
Long-term - systemic effects, oral	6.3 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	59 mg/m <sup>3</sup>
<b>PNEC (Water)</b>	
PNEC aqua (freshwater)	8.8 mg/l
PNEC aqua (marine water)	0.88 mg/l
PNEC aqua (intermittent, freshwater)	26.4 mg/l
<b>PNEC (Sediment)</b>	
PNEC sediment (freshwater)	34.6 mg/kg dwt
PNEC sediment (marine water)	3.46 mg/kg dwt
<b>PNEC (Soil)</b>	
PNEC soil	2.33 mg/kg dwt
<b>PNEC (Oral)</b>	
PNEC oral (secondary poisoning)	0.02 g/kg food
<b>PNEC (STP)</b>	
PNEC sewage treatment plant	463 mg/l

#### 8.2. Exposure controls

##### Appropriate engineering controls

##### Appropriate engineering controls:

Ensure good ventilation of the work station. Provide sufficient air exchange and/or exhaust.

##### Personal protection equipment

##### Personal protective equipment symbol(s):



# 2-Butoxyethanol (Butyl Glycol)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### Eye and face protection

Eye protection			
Type	Field of application	Characteristics	Standard
Safety glasses, Safety goggles	Dust, Droplet, Fine dust	With side shields, Wear a face shield	EN 166

### Skin protection

#### Skin and body protection:

Wear suitable protective clothing

#### Hand protection:

Protective gloves. 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. Protective gloves should be replaced at first signs of wear.

Hand protection					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Butyl rubber	6 (> 480 minutes)	≥0.5		EN ISO 374

### Respiratory protection

Respiratory protection			
Device	Filter type	Condition	Standard
	A-P2	Vapour protection, Protection for Liquid particles	EN 14387

### Environmental exposure controls

#### Environmental exposure controls:

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: clear. Colourless.
Molecular mass	: 118.18 g/mol
Odour	: Sweet. slight.
Odour threshold	: 0.1 – 0.48 ppm
Melting point	: -74.8 °C Atm. press.: 1 atm Decomposition: 'no' Sublimation: 'no'
Freezing point	: Not available
Boiling point	: 0 (168 – 173) °C
Flammability	: Not available
Explosive properties	: Explosive vapour/air mixtures may be formed. Product is not explosive.
Oxidising properties	: Not oxidising.
Lower explosion limit	: 1.1 vol %
Upper explosion limit	: 10.6 vol %
Flash point	: 67 °C Atm. press.: 1013 hPa
Auto-ignition temperature	: 230 °C
Decomposition temperature	: Not available
pH	: neutral
Viscosity, kinematic	: 3.642 mm <sup>2</sup> /s (20 °C)
Viscosity, dynamic	: 3.3 mPa·s (20 °C)
Solubility	: Water: > 1000 g/l (20 °C)
Partition coefficient n-octanol/water (Log Kow)	: Not available
Partition coefficient n-octanol/water (Log Pow)	: 0.81 (25 °C)
Vapour pressure	: 0.8 hPa Temp.: 20 °C
Vapour pressure at 50°C	: Not available

# 2-Butoxyethanol (Butyl Glycol)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Density : 900 kg/m<sup>3</sup> Type: 'density' Temp.: 20 °C  
Relative density : 0.9 (20 °C)  
Relative vapour density at 20°C : 4.1 (air=1.0)  
Particle characteristics : Not applicable

### 9.2. Other information

#### Other safety characteristics

Relative evaporation rate (butylacetate=1) : 0.08 Method: ASTM D3539  
Refractive index : 1.419 – 1.42 20 °C Method: ISO 5661  
Surface tension : 65 mN/m 20 °C

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Does not decompose when used and stored as recommended.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Peroxides may be formed on prolonged contact with air.

### 10.4. Conditions to avoid

Keep away from heat, sparks and flame. Take precautionary measures against static discharge.

### 10.5. Incompatible materials

Strong oxidizing agents. Acids. Strong bases. Aluminium. alkalis.

### 10.6. Hazardous decomposition products

Aldehydes. ketones. Organic acids.

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Harmful if swallowed.  
Acute toxicity (dermal) : Not classified  
Acute toxicity (inhalation) : Toxic if inhaled.

#### 2-Butoxyethanol (Butyl Glycol) (111-76-2)

LD50 oral	1414 mg/kg bodyweight Animal: guinea pig, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 1020 - 1961
-----------	--

Skin corrosion/irritation : Causes skin irritation.  
pH: neutral  
Serious eye damage/irritation : Causes serious eye irritation.  
pH: neutral  
Respiratory or skin sensitisation : Not classified  
Germ cell mutagenicity : Not classified  
Carcinogenicity : Not classified  
Reproductive toxicity : Not classified  
STOT-single exposure : Not classified  
STOT-repeated exposure : Not classified

#### 2-Butoxyethanol (Butyl Glycol) (111-76-2)

NOAEL (dermal, rat/rabbit, 90 days)	> 150 mg/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study)
-------------------------------------	---

# 2-Butoxyethanol (Butyl Glycol)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Aspiration hazard : Not classified

### 2-Butoxyethanol (Butyl Glycol) (111-76-2)

Viscosity, kinematic	3.642 mm <sup>2</sup> /s (20 °C)
----------------------	----------------------------------

### 11.2. Information on other hazards

No additional information available

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Not classified

### 2-Butoxyethanol (Butyl Glycol) (111-76-2)

LC50 - Fish [1]	1474 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	≈ 1800 mg/l Test organisms (species): Daphnia magna
NOEC (chronic)	100 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	≥ 100 mg/l Test organisms (species): Oryzias latipes Duration: '14 d'

### 12.2. Persistence and degradability

### 2-Butoxyethanol (Butyl Glycol) (111-76-2)

Persistence and degradability	Not rapidly degradable
-------------------------------	------------------------

### 12.3. Bioaccumulative potential

### 2-Butoxyethanol (Butyl Glycol) (111-76-2)

Partition coefficient n-octanol/water (Log Pow)	0.81 (25 °C)
---	--------------

### 12.4. Mobility in soil

### 2-Butoxyethanol (Butyl Glycol) (111-76-2)

Surface tension	65 mN/m 20 °C
-----------------	---------------

### 12.5. Results of PBT and vPvB assessment

### 2-Butoxyethanol (Butyl Glycol) (111-76-2)

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

### 12.6. Endocrine disrupting properties

No additional information available

### 12.7. Other adverse effects

No additional information available

# 2-Butoxyethanol (Butyl Glycol)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

- Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions. Disposal together with normal waste is not allowed.
- Product/Packaging disposal recommendations : Special disposal required according to local regulations. Do not let product enter drains. Contact waste disposal services. This product shall be disposed of or recovered in compliance with Directive 2008/98/EC on waste as lastly amended.
- HP Code : HP6 - "Acute Toxicity:" waste which can cause acute toxic effects following oral or dermal administration, or inhalation exposure.  
HP4 - "Irritant – skin irritation and eye damage:" waste which on application can cause skin irritation or damage to the eye.

### SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number or ID number</b>				
Not regulated for transport				
<b>14.2. UN proper shipping name</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.3. Transport hazard class(es)</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.4. Packing group</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
<b>14.5. Environmental hazards</b>				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available				

#### 14.6. Special precautions for user

##### Overland transport

Not regulated

##### Transport by sea

Not regulated

##### Air transport

Not regulated

##### Inland waterway transport

Not regulated

##### Rail transport

Not regulated

#### 14.7. Maritime transport in bulk according to IMO instruments

Not applicable

# 2-Butoxyethanol (Butyl Glycol)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### SECTION 15: Regulatory information

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

##### EU-Regulations

###### REACH Annex XVII (Restriction List)

Not listed on REACH Annex XVII

###### REACH Annex XIV (Authorisation List)

Not listed on REACH Annex XIV (Authorisation List)

###### REACH Candidate List (SVHC)

Not listed on the REACH Candidate List

###### PIC Regulation (Prior Informed Consent)

Not listed on the PIC list (Regulation EU 649/2012)

###### POP Regulation (Persistent Organic Pollutants)

Not listed on the POP list (Regulation EU 2019/1021)

###### Ozone Regulation (2024/590)

Not listed on the Ozone Depletion list (Regulation EU 2024/590)

###### Council Regulation (EC) for the control of dual-use items

Not listed on the COUNCIL REGULATION (EC) of dual-use items.

###### Explosives Precursors Regulation (EU 2019/1148)

Not listed on the Explosives Precursors list (EU)

###### Drug Precursors Regulation (EC 273/2004)

Not listed on the Drug Precursors list (EU)

##### National regulations

###### Austria

Ordinance on Flammable Liquids (VbF)

: Not classified.

Toxic Substances Ordinance 2000

: Is subject to the Toxic Substances Ordinance 2000.

###### Denmark

Class for fire hazard

: Class III-1

Store unit

: 50 liter

Classification remarks

: Flammable according to the Danish Ministry of Justice; Emergency management guidelines for the storage of flammable liquids must be followed

Danish National Regulations

: Young people below the age of 18 years are not allowed to use the product

Pregnant/breastfeeding women working with the product must not be in direct contact with it.

If an employee is pregnant or breastfeeding and the person in question uses or is exposed to this product at work, the employer must always carry out a risk assessment of the work. The assessment must both deal with the dangerousness of the impact and its strength and duration. The employer's decision that a pregnant or lactating woman can perform a specific work task must therefore be made in the context of her specific working conditions. See also WEA-Guideline A.1.8-7 on the working environment of pregnant and breastfeeding workers. Listed or contains substance(s) on the Denmark - Indicative list of organic solvents present in Annex 3.4.1 of the WEA Guidance C.0.1-1: Butyl glycol (2000) (111-76-2)

# 2-Butoxyethanol (Butyl Glycol)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### Finland

### France

Occupational diseases	
Code	Description
RG 84	Conditions caused by liquid organic solvents for professional use: saturated or unsaturated aliphatic or cyclic liquid hydrocarbons and mixtures thereof; liquid halogenated hydrocarbons; nitrated derivatives of aliphatic hydrocarbons; alcohols; glycols, glycol ethers; ketones; aldehydes; aliphatic and cyclic ethers, including tetrahydrofuran; esters; dimethylformamide and dimethylacetamine; acetonitrile and propionitrile; pyridine; dimethylsulfone and dimethylsulfoxide

### Germany

- Employment restrictions : Observe restrictions according Act on the Protection of Working Mothers (MuSchG).  
Observe restrictions according Act on the Protection of Young People in Employment (JArbSchG).
- Water hazard class (WGK) : WGK 1, Slightly hazardous to water (Classification according to AwSV; ID No. 47).
- Chemicals Prohibition Ordinance (ChemVerbotsV) : This product is subject to ChemVerbotsV Annex 2 Entry 1. The following requirements must be observed: authorization requirement (according to § 6 paragraph 1 sentence 1), basic requirements for carrying out the delivery (according to § 8 paragraph 1, 3 and 4), identification and documentation (according to § 9 paragraph 1 to 3) and exclusion of the shipping route (according to § 10).
- Major Accidents Ordinance (12. BImSchV) : Is listed in the Major Accidents Ordinance (12. BImSchV)

Major Accidents Ordinance (12. BImSchV)				
Number	Code	Title	Lower-tier	Upper-tier
1.1.2	H2	Acute toxic, category 2 (all exposure routes), category 3 (inhalation, oral)	50,000 kg	200,000 kg

### Netherlands

- ABM category : B(4) - low hazard for aquatic organisms
- SZW-lijst van kankerverwekkende stoffen : The substance is not listed
- SZW-lijst van mutagene stoffen : The substance is not listed
- SZW-lijst van reprotoxische stoffen – Borstvoeding : The substance is not listed
- SZW-lijst van reprotoxische stoffen – Vruchtbaarheid : The substance is not listed
- SZW-lijst van reprotoxische stoffen – Ontwikkeling : The substance is not listed

# 2-Butoxyethanol (Butyl Glycol)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### Poland

Polish National Regulations : Act of 25 February 2011 on chemical substances and their mixtures (J. o L. No. 63, item 322 as amended; consolidated text J. o L. 2019, item 1225).  
Act of 14 December 2012 on waste (J. o L. 2013, item 322 as amended; consolidated text J. o L. 2020, item 797).  
The announcement of Marshal of the Sejm of the Republic of Poland dated 19 October 2016 concerning the consolidated text announcement of the decree on the management of packaging and packaging waste (J. o L. 2016, item 1863 as amended).  
Decree of the Minister of Environment of 14 December 2014 on the catalogue of waste (J. o L. 2014, item 1923).  
Act of 19 August 2011 on the Carriage of Dangerous Goods (J. o L. 2011 No. 227, item 1367 as amended; consolidated text J. o L. 2020, item 154).  
Regulation of the Minister of Family, Labour and Social Policy of 12 June 2018 on the highest permissible concentration and intensity of noxious agents for health at work environment (J. o L. item 1286 as amended).  
The announcement of Minister of Health dated 9 September 2016 concerning the consolidated text announcement of the decree of the Minister of Health of 30 December 2004 on health and safety at work related to exposure to chemical agents at work (J. o L. of 16 September 2016, item 1488)  
Regulation of the Minister of Health of 2 February 2011 on tests and measurements of the noxious agents for health at work environment (J. o L. No. 33, item 166 as amended).  
Regulation of the Minister of Environment of 9 December 2003 on particularly hazardous substances to the environment (J. o L. No. 217, item 2141).  
ADR Agreement: Government Statement of 13 March 2023 on the entry into force of amendments to Annexes A and B to the Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), signed in Geneva on 30 September 1957 (J. o. L. 2023, item 891)  
Regulation of the Minister of Health of 25 August 2015 on the method of marking places, pipelines, and containers and tanks used for storing or containing hazardous substances or hazardous mixtures (J.o.L. 2015, item 1368 as amended)

### Spain

Royal Decree 665/1997 : Is not subject to the Royal Decree 665/1997

### Switzerland

Chemicals Ordinance (ChemO, SR 813.11) : Group 2

## 15.2. Chemical safety assessment

No additional information available

## SECTION 16: Other information

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration

# 2-Butoxyethanol (Butyl Glycol)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Abbreviations and acronyms:	
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstracts Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disruptor

Full text of H- and EUH-statements:	
Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.