

## Safety Data Sheet

according to UK REACH Regulation

### Diethylene glycol monobutyl ether solution 25 % in water for the determination of the cloud point of

Revision date: 31.08.2022

Product code: 14053

Page 1 of 11

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

##### 1.1. Product identifier

Diethylene glycol monobutyl ether solution 25 % in water for the determination of the cloud point of

UFI: NHW7-W1GR-K00M-QHJU

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

###### Use of the substance/mixture

Laboratory chemicals

Industrial uses: Uses of substances as such or in preparations at industrial sites

Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

###### Uses advised against

Do not use for private purposes (household).

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

Company name:	Fa. Bernd Kraft GmbH	
Street:	Stempelstraße 6	
Place:	D-47167 Duisburg	
Telephone:	0203/5194-0	Telefax: 0203/5194-290
e-mail:	info@berndkraft.de	
Contact person:	Abteilung Produktsicherheit	Telephone: 0203/5194-107/117
e-mail:	produktsicherheit@berndkraft.de	
Internet:	www.berndkraft.de	
Responsible Department:	Abteilung Produktsicherheit	

##### 1.4. Emergency telephone number:

For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

##### Further Information

inapplicable, this product is a mixture REACH registration number see section 3

#### SECTION 2: Hazards identification

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

###### GB CLP Regulation

Eye Irrit. 2; H319

Full text of hazard statements: see SECTION 16.

##### 2.2. Label elements

###### GB CLP Regulation

Signal word: Warning

Pictograms:



###### Hazard statements

H319 Causes serious eye irritation.

###### Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing

**Safety Data Sheet**

according to UK REACH Regulation

**Diethylene glycol monobutyl ether solution 25 % in water for the determination of the cloud point of**

Revision date: 31.08.2022

Product code: 14053

Page 2 of 11

P305+P351+P338 protection.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P337+P313 If eye irritation persists: Get medical advice/attention.

**2.3. Other hazards**

No data available

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

**3.2. Mixtures**

**Hazardous components**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
112-34-5	2-(2-butoxyethoxy)ethanol			25 - < 30 %
	203-961-6	603-096-00-8	01-2119475104-44	
	Eye Irrit. 2; H319			

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

**Specific Conc. Limits, M-factors and ATE**

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
112-34-5	203-961-6	2-(2-butoxyethoxy)ethanol	25 - < 30 %
	dermal: LD50 = 2764 mg/kg; oral: LD50 = 2410 mg/kg		

**Further Information**

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

**SECTION 4: First aid measures**

**4.1. Description of first aid measures**

**General information**

No data available

**After inhalation**

Provide fresh air.  
Call a doctor if you feel unwell.

**After contact with skin**

Wash immediately with: Water  
Take off immediately all contaminated clothing and wash it before reuse.

**After contact with eyes**

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.  
Remove contact lenses, if present and easy to do. Continue rinsing.

**After ingestion**

Rinse mouth immediately and drink plenty of water.  
Call a physician immediately.

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

Irritant  
Dyspnoea

## Safety Data Sheet

according to UK REACH Regulation

### Diethylene glycol monobutyl ether solution 25 % in water for the determination of the cloud point of

Revision date: 31.08.2022

Product code: 14053

Page 3 of 11

Dizziness  
Gastrointestinal complaints

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

No data available

### **SECTION 5: Firefighting measures**

#### **5.1. Extinguishing media**

##### **Suitable extinguishing media**

Carbon dioxide (CO<sub>2</sub>)  
Foam  
Extinguishing powder

##### **Unsuitable extinguishing media**

no restriction

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

Hazardous combustion products  
In case of fire may be liberated: Carbon dioxide (CO<sub>2</sub>) Carbon monoxide

#### **5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus.  
In case of fire and/or explosion do not breathe fumes.  
Avoid contact with skin, eyes and clothes.

#### **Additional information**

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.  
Move undamaged containers from immediate hazard area if it can be done safely.  
Use water spray jet to protect personnel and to cool endangered containers.

### **SECTION 6: Accidental release measures**

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

##### **For non-emergency personnel**

Provide adequate ventilation.  
Use personal protection equipment.  
Avoid contact with skin, eyes and clothes.  
Remove persons to safety.  
Emergency procedures  
Consult an expert  
Do not breathe dust/fume/gas/mist/vapours/spray.

##### **For emergency responders**

Precautionary statements For emergency responders : Personal protection equipment: see section 8

#### **6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

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

##### **For containment**

Cover drains.  
Prevent spread over a wide area (e.g. by containment or oil barriers).  
Collect in closed and suitable containers for disposal.  
Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

##### **For cleaning up**

Clean contaminated articles and floor according to the environmental legislation.

## Safety Data Sheet

according to UK REACH Regulation

### Diethylene glycol monobutyl ether solution 25 % in water for the determination of the cloud point of

Revision date: 31.08.2022

Product code: 14053

Page 4 of 11

#### Other information

- Provide adequate ventilation.
- Do not breathe dust/fume/gas/mist/vapours/spray.
- Wear breathing apparatus if exposed to vapours/dusts/aerosols.

#### 6.4. Reference to other sections

- Safe handling: see section 7
- Personal protection equipment: see section 8
- Disposal: see section 13

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Advice on safe handling

- Read label before use. Handle and open container with care.
- When using do not eat, drink, smoke, sniff. Keep container tightly closed.
- Use personal protection equipment. Use extractor hood (laboratory).
- Do not breathe vapour/aerosol. Provide adequate ventilation.

#### Advice on protection against fire and explosion

- Usual measures for fire prevention.

#### Advice on general occupational hygiene

- Keep away from food, drink and animal feedingstuffs.
- Wash hands and face before breaks and after work and take a shower if necessary.
- When using do not eat or drink.
- Avoid: aerosol or mist formation Do not breathe vapour/aerosol.

#### Further information on handling

- Take off immediately all contaminated clothing and wash it before reuse.
- Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. If handled uncovered, arrangements with local exhaust ventilation have to be used.

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

#### Requirements for storage rooms and vessels

- Unsuitable container/equipment material:
  - Aluminium
  - Zinc
  - tin

#### Hints on joint storage

- national regulations

#### Further information on storage conditions

- Protect from sunlight.
- Keep container tightly closed.

### 7.3. Specific end use(s)

- Laboratory chemicals

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

**Safety Data Sheet**

according to UK REACH Regulation

**Diethylene glycol monobutyl ether solution 25 % in water for the determination of the cloud point of**

Revision date: 31.08.2022

Product code: 14053

Page 5 of 11

**Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
112-34-5	2-(2-Butoxyethoxy)ethanol	10	67.5		TWA (8 h)	WEL
		15	101.2		STEL (15 min)	WEL

**DNEL/DMEL values**

CAS No	Substance	Exposure route	Effect	Value
112-34-5	2-(2-butoxyethoxy)ethanol			
	Worker DNEL, long-term	inhalation	systemic	67,5 mg/m <sup>3</sup>
	Worker DNEL, long-term	inhalation	local	67,5 mg/m <sup>3</sup>
	Worker DNEL, acute	inhalation	local	101,2 mg/m <sup>3</sup>
	Worker DNEL, long-term	dermal	systemic	83 mg/kg bw/day
	Consumer DNEL, long-term	inhalation	systemic	40,5 mg/m <sup>3</sup>
	Consumer DNEL, long-term	inhalation	local	40,5 mg/m <sup>3</sup>
	Consumer DNEL, acute	inhalation	local	60,7 mg/m <sup>3</sup>
	Consumer DNEL, long-term	dermal	systemic	50 mg/kg bw/day
	Consumer DNEL, long-term	oral	systemic	5 mg/kg bw/day

**PNEC values**

CAS No	Substance	Value
112-34-5	2-(2-butoxyethoxy)ethanol	
	Freshwater	1,1 mg/l
	Freshwater (intermittent releases)	11 mg/l
	Marine water	0,11 mg/l
	Freshwater sediment	4,4 mg/kg
	Marine sediment	0,44 mg/kg
	Secondary poisoning	56 mg/kg
	Micro-organisms in sewage treatment plants (STP)	200 mg/l
	Soil	0,32 mg/kg

**8.2. Exposure controls**

**Appropriate engineering controls**

Technical measures and the application of suitable work processes have priority over personal protection equipment.

If handled uncovered, arrangements with local exhaust ventilation have to be used.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

goggles

Face protection umbrella

**Hand protection**

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is

**Safety Data Sheet**

according to UK REACH Regulation

**Diethylene glycol monobutyl ether solution 25 % in water for the determination of the cloud point of**

Revision date: 31.08.2022

Product code: 14053

Page 6 of 11

recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Suitable examples are gloves of KCL GmbH, D-36124 Eichenzell, e-mail: [vertrieb@kcl.de](mailto:vertrieb@kcl.de) with the following specification (test according to EN 374):

By long-term hand contact  
Trade name/designation KCL 730 Camatril® Velours  
Suitable material: NBR (Nitrile rubber) 0,4 mm  
Wearing time with permanent contact: > 480 min

By short-term hand contact  
Trade name/designation KCL 730 Camatril® Velours  
Suitable material: NBR (Nitrile rubber) 0,4 mm  
Wearing time with occasional contact (splashes): > 480 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: [www.kcl.de](http://www.kcl.de)).

**Skin protection**

Wear fire resistant or flame retardant clothing.  
Take off immediately all contaminated clothing and wash it before reuse.  
Wear suitable protective clothing. Take off immediately all contaminated clothing.  
Wash hands and face before breaks and after work and take a shower if necessary.

**Respiratory protection**

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

**Environmental exposure controls**

Do not allow to enter into surface water or drains.  
Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches.  
Danger of explosion

**SECTION 9: Physical and chemical properties**

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

Physical state:	Liquid	
Colour:	colourless	
Odour:	odourless	
Odour threshold:	No data available	
Melting point/freezing point:		No data available
Boiling point or initial boiling point and boiling range:		No data available
Flammability		
Solid/liquid:		No data available
Gas:		No data available
Lower explosion limits:		No data available
Upper explosion limits:		No data available
Flash point:		>105 °C
Auto-ignition temperature:		No data available
Decomposition temperature:		No data available

**Diethylene glycol monobutyl ether solution 25 % in water for the determination of the cloud point of**

Revision date: 31.08.2022

Product code: 14053

Page 7 of 11

pH-Value:	4,7
Viscosity / kinematic:	No data available
Water solubility:	Soluble in: Water
Solubility in other solvents	
No data available	
Dissolution rate:	No data available
Partition coefficient n-octanol/water:	No data available
Dispersion stability:	No data available
Vapour pressure:	No data available
Vapour pressure:	No data available
Density:	1,003 g/cm <sup>3</sup>
Relative density:	No data available
Bulk density:	No data available
Relative vapour density:	No data available
Particle characteristics:	No data available

**9.2. Other information**

**Information with regard to physical hazard classes**

Explosive properties	
No data available	
Sustaining combustion:	No data available
Self-ignition temperature	
Solid:	No data available
Gas:	No data available
Oxidizing properties	
No data available	

**Other safety characteristics**

Evaporation rate:	No data available
Solvent separation test:	No data available
Solvent content:	No data available
Solid content:	No data available
Sublimation point:	No data available
Softening point:	No data available
Pour point:	No data available
:	No data available
Viscosity / dynamic:	No data available
Flow time:	No data available

**Further Information**

No data available

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

No data available

**10.2. Chemical stability**

In case of air intake:  
Formation of: Peroxides

**10.3. Possibility of hazardous reactions**

Oxidising agent  
Aluminium

**Diethylene glycol monobutyl ether solution 25 % in water for the determination of the cloud point of**

Revision date: 31.08.2022

Product code: 14053

Page 8 of 11

**10.4. Conditions to avoid**

Heat

**10.5. Incompatible materials**

Aluminium  
Light metal

**10.6. Hazardous decomposition products**

Peroxides

**Further information**

No data available

**SECTION 11: Toxicological information**

**11.1. Information on hazard classes as defined in GB CLP Regulation**

**Toxicokinetics, metabolism and distribution**

There are no data available on the preparation/mixture itself.

**Acute toxicity**

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

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
112-34-5	2-(2-butoxyethoxy)ethanol				
	oral	LD50 2410 mg/kg	Mouse	Study report (1981)	OECD Guideline 401
	dermal	LD50 2764 mg/kg	Rabbit	Study report (1981)	OECD Guideline 402

**Irritation and corrosivity**

Causes serious eye irritation.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

**Sensitising effects**

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

**Carcinogenic/mutagenic/toxic effects for reproduction**

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.

**Information on likely routes of exposure**

There are no data available on the preparation/mixture itself.

**Specific effects in experiment on an animal**

There are no data available on the preparation/mixture itself.

**Additional information on tests**

There are no data available on the preparation/mixture itself.

**Practical experience**

There are no data available on the preparation/mixture itself.

**11.2. Information on other hazards**



**Diethylene glycol monobutyl ether solution 25 % in water for the determination of the cloud point of**

Revision date: 31.08.2022

Product code: 14053

Page 9 of 11

**Endocrine disrupting properties**

There are no data available on the preparation/mixture itself.

**Other information**

Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation).

Damage to:

liver

kidneys

**Further information**

Irritant

Dyspnoea

Dizziness

Gastrointestinal complaints

**SECTION 12: Ecological information**

**12.1. Toxicity**

There are no data available on the mixture itself.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
112-34-5	2-(2-butoxyethoxy)ethanol					
	Acute fish toxicity	LC50 mg/l	1300	96 h	Lepomis macrochirus	J Haz Mat, 1, p303-18 (1977) OECD Guideline 203
	Acute algae toxicity	ErC50 mg/l	> 100	96 h	Desmodesmus subspicatus	Study report (1992) OECD Guideline 201
	Acute crustacea toxicity	EC50 mg/l	> 100	48 h	Daphnia magna	Study report (1992) EU Method C.2

**12.2. Persistence and degradability**

There are no data available on the mixture itself.

**12.3. Bioaccumulative potential**

There are no data available on the mixture itself.

**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
112-34-5	2-(2-butoxyethoxy)ethanol	1

**12.4. Mobility in soil**

There are no data available on the mixture itself.

**12.5. Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

**12.6. Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

There are no data available on the mixture itself.

**12.7. Other adverse effects**

Avoid release to the environment.

**Further information**

Do not allow to enter into surface water or drains.

## Safety Data Sheet

according to UK REACH Regulation

### Diethylene glycol monobutyl ether solution 25 % in water for the determination of the cloud point of

Revision date: 31.08.2022

Product code: 14053

Page 10 of 11

#### SECTION 13: Disposal considerations

##### 13.1. Waste treatment methods

###### **Disposal recommendations**

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.  
Send to a physico-chemical treatment facility under observation of official regulations.  
Do not empty into drains.

###### **Contaminated packaging**

Handle contaminated packages in the same way as the substance itself.  
The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

#### SECTION 14: Transport information

##### **Land transport (ADR/RID)**

<u>14.1. UN number or ID number:</u>	No dangerous good in sense of this transport regulation.
<u>14.2. UN proper shipping name:</u>	No dangerous good in sense of this transport regulation.
<u>14.3. Transport hazard class(es):</u>	No dangerous good in sense of this transport regulation.
<u>14.4. Packing group:</u>	No dangerous good in sense of this transport regulation.

##### **Inland waterways transport (ADN)**

<u>14.1. UN number or ID number:</u>	No dangerous good in sense of this transport regulation.
<u>14.2. UN proper shipping name:</u>	No dangerous good in sense of this transport regulation.
<u>14.3. Transport hazard class(es):</u>	No dangerous good in sense of this transport regulation.
<u>14.4. Packing group:</u>	No dangerous good in sense of this transport regulation.

##### **Marine transport (IMDG)**

<u>14.1. UN number or ID number:</u>	No dangerous good in sense of this transport regulation.
<u>14.2. UN proper shipping name:</u>	No dangerous good in sense of this transport regulation.
<u>14.3. Transport hazard class(es):</u>	No dangerous good in sense of this transport regulation.
<u>14.4. Packing group:</u>	No dangerous good in sense of this transport regulation.

##### **Air transport (ICAO-TI/IATA-DGR)**

<u>14.1. UN number or ID number:</u>	No dangerous good in sense of this transport regulation.
<u>14.2. UN proper shipping name:</u>	No dangerous good in sense of this transport regulation.
<u>14.3. Transport hazard class(es):</u>	No dangerous good in sense of this transport regulation.
<u>14.4. Packing group:</u>	No dangerous good in sense of this transport regulation.

##### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

##### 14.6. Special precautions for user

No dangerous good in sense of this transport regulation.

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

No dangerous good in sense of this transport regulation.

#### SECTION 15: Regulatory information

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

###### **EU regulatory information**

Restrictions on use (REACH, annex XVII):  
Entry 3, Entry 55, Entry 75

###### **National regulatory information**

## Safety Data Sheet

according to UK REACH Regulation

### Diethylene glycol monobutyl ether solution 25 % in water for the determination of the cloud point of

Revision date: 31.08.2022

Product code: 14053

Page 11 of 11

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).  
Water hazard class (D): 1 - slightly hazardous to water

#### SECTION 16: Other information

##### Changes

This data sheet contains changes from the previous version in section(s): 9.

##### Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure
Eye Irrit. 2; H319	Calculation method

##### Relevant H and EUH statements (number and full text)

H319 Causes serious eye irritation.

##### Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material. The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*