

*SAFETY DATA SHEET according to Regulation (EC) No. 1907/2006*

**BEROL 226**

Version 3.2  
Revision Date 2011/02/02

Print Date 2011/02/02  
MSDS code: **MVVV336**

**1. Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifier**

Trade name : BEROL 226

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

Use of the Substance/Mixture : At this time we do not yet have information on identified uses. They will be included in this safety data sheet when available.

Recommended restrictions on use : At that time we do not yet have information on use restrictions. They will be included in this safety data sheet when available.

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

Company : Brenntag UK & Ireland  
Albion House, Rawdon Park  
GB LS19 7XX Leeds Yeadon

Telephone : 0113 3879 200  
Telefax : 0113 3879 280  
E-mail address : msds@brenntag.co.uk

**1.4. Emergency telephone number**

Emergency telephone number : Emergency only telephone number (open 24 hours):  
01865 407333 (N.C.E.C. Culham)

**2. Hazards identification**

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

Classification according to Regulation (EC) No 1272/2008

REGULATION (EC) No 1272/2008			
Hazard class	Hazard category	Target Organs	Hazard statements
Serious eye damage	Category 1		H318

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**Chronic aquatic toxicity**

**Category 2**

**H411**

For the full text of the H-Statements mentioned in this Section, see Section 16.

**Classification according to EU Directives 67/548/EEC or 1999/45/EC**

Directive 67/548/EEC or 1999/45/EC	
Hazard symbol / Category of danger	Risk phrases
Irritant (Xi)	R38, R41
Dangerous for the environment (N)	R51/53

For the full text of the R-phrases mentioned in this Section, see Section 16.

**Most important adverse effects**

- Human Health : See section 11 for toxicological information.  
No further information available.
- Physical and chemical hazards : See section 9 for physicochemical information.  
No further information available.
- Potential environmental effects : See section 12 for environmental information.  
No further information available.

**2.2. Label elements**

**Labelling according to Regulation (EC) No 1272/2008**

Hazard symbols :



Signal word : Danger

Hazard statements : H318 Causes serious eye damage.  
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

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Prevention	: P273 P280	Avoid release to the environment. Wear protective gloves/ eye protection/ face protection.
Response	: P305 + P351 + P338  P308 P310  P391	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed or concerned: Immediately call a POISON CENTER or doctor/ physician. Collect spillage.

**Additional Labelling:**

The following percentage of the mixture consists of ingredient(s) with unknown acute toxicity: 29.9999 %

**Hazardous components which must be listed on the label:**

|| • (C9-C11) Alkyl alcohol, ethoxylate

**2.3. Other hazards**

No other information is available.

**3. Composition/information on ingredients****3.2. Mixtures**

Hazardous components	Amount [%]	Classification (REGULATION (EC) No 1272/2008)		Classification (67/548/EEC)
		Hazard class / Hazard category	Hazard statements	
CAS-No. : 68439-46-3 Coco alkylbis(hydroxyethyl)methylammonium chlorides, ethoxylated	>= 50 - < 60	1	H318	Xi; R38-R41

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<b>CAS-No.</b> : 61791-10-4		Eye Dam.1 Aquatic Chronic2	H318 H411	Xi; R41 N; R51/53
	>= 30 - < 40			
<b>Alkylglycol</b>				
	>= 10 - < 30			

For the full text of the R-phrases mentioned in this Section, see Section 16.

For the full text of the H-Statements mentioned in this Section, see Section 16.

**4. First aid measures**

**4.1 Description of first aid measures**

General advice	: Call a physician immediately.
If inhaled	: Not relevant
In case of skin contact	: Take off all contaminated clothing immediately. Wash off with warm water. If symptoms persist, call a physician.
In case of eye contact	: Rinse thoroughly with plenty of water, also under the eyelids. Call a physician immediately.
If swallowed	: Never give anything by mouth to an unconscious person. Clean mouth with water and drink afterwards plenty of water.

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

Symptoms	: No further information available.
Effects	: No further information available.

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

Treatment	: Treat symptomatically. No further information available.
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**5. Fire-fighting measures****5.1. Extinguishing media**

Suitable extinguishing media : Water spray  
Foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry powder  
Alcohol-resistant foam

Unsuitable extinguishing media : No information available.

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

Specific hazards during fire fighting : does not ignite  
May assist fire in burning materials  
Hazardous decomposition products  
None known.

**5.3. Advice for firefighters**

Special protective equipment for fire-fighters : Self-contained breathing apparatus (EN 133)  
Further information : No further information available.

**6. Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

Personal precautions : Wear personal protective equipment.

**6.2 Environmental precautions**

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

**6.3 Methods and materials for containment and cleaning up**

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Methods and materials for containment and cleaning up : Soak up with inert absorbent material. Treat recovered material as described in the section "Disposal considerations".

**6.4 Reference to other sections**

For personal protection see section 8.

**7. Handling and storage****7.1 Precautions for safe handling**

Advice on safe handling : Handle in accordance with good industrial hygiene and safety practice.  
Hygiene measures : Keep away from food, drink and animal feedingstuffs. Smoking, eating and drinking should be prohibited in the application area. Wash hands before breaks and at the end of workday.

**7.2 Conditions for safe storage, including any incompatibilities**

Requirements for storage areas and containers : No special storage conditions required.

Other data : Stable under normal conditions.

**7.3 Specific end uses**

Specific use(s) : No information available.

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(Additional) Information : Contains no substances with occupational exposure limit values.

**8.2. Exposure controls****Personal protective equipment***Respiratory protection*

Advice : Suitable respiratory protective device

*Hand protection*

Advice : Wear suitable gloves.  
The glove material has to be impermeable and resistant to the product / the substance / the preparation.  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.  
Neoprene gloves  
Nitrile rubber

*Eye protection*

Advice : Tightly fitting safety goggles

*Skin and body protection*

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Advice : Protective suit

**Environmental exposure controls**

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

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

Form	: liquid
Colour	: tan
Odour	: Currently we do not have any Information from our supplier about this.
Odour Threshold	: Currently we do not have any Information from our supplier about this.
pH	: 5 - 8 10 g/l
Melting point/range	: < -10 °C
Boiling point/boiling range	: > 100 °C 760 hPa
Flash point	: > 100 °C Method: ISO 2719
Evaporation rate	: Currently we do not have any Information from our supplier about this.
Flammability (solid, gas)	: Currently we do not have any Information from our supplier about this.
Upper explosion limit	: Currently we do not have any Information from our supplier about this.
Lower explosion limit	: Currently we do not have any Information from our supplier about this.
Vapour pressure	: Currently we do not have any Information from our supplier about this.
Relative vapour density	: Currently we do not have any Information from our supplier about this.
Density	: 1.01 g/cm <sup>3</sup>



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	20 °C
Water solubility	: completely miscible
Solubility in other solvents	: Medium: Ethanol completely miscible
Partition coefficient: n-octanol/water	: Currently we do not have any Information from our supplier about this.
Ignition temperature	: Currently we do not have any Information from our supplier about this.
Thermal decomposition	: Currently we do not have any Information from our supplier about this.
Viscosity, dynamic	: ca. 80 mPa.s 20 °C
Explosivity	: Currently we do not have any Information from our supplier about this.
Oxidizing properties	: Currently we do not have any Information from our supplier about this.

**9.2 Other information**

No further information available.

**10. Stability and reactivity****10.1. Reactivity**

Advice : No information available.

**10.2. Chemical stability**Advice : No decomposition if stored and applied as directed.  
No further information available.**10.3. Possibility of hazardous reactions**

Hazardous reactions : No information available.

**10.4. Conditions to avoid**

Conditions to avoid : No information available.

**10.5. Incompatible materials**

Materials to avoid : No information available.

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products**11. Toxicological information****11.1. Information on toxicological effects****Product: BEROL 226****Acute toxicity****Oral**Value type : LD50  
Value : > 2,000 mg/kg  
Species : rat**Irritation****Eyes**Species : rabbit  
Remarks : Severe eye irritation**Sensitisation**

Remarks : not sensitizing

**12. Ecological information****12.1. Toxicity****Product: BEROL 226**

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MSDS code: **MVVV336****Acute toxicity****Fish**

Test type : Toxicity to fish  
Species : Oncorhynchus mykiss  
Exposure Time : 96 h  
Value type : LC50  
Value : 10 - 30 mg/l

**Toxicity to daphnia and other aquatic invertebrates.**

Test type : Toxicity to daphnia  
Species : Daphnia  
Exposure time : 48 h  
Value type : EC50  
Value : 10 - 20 mg/l

**algae**

Test type : Toxicity to algae  
Exposure time : 72 h  
Value type : EC50  
Value : 1.6 mg/l

**12.2. Persistence and degradability****Product: BEROL 226****Persistence and degradability****Biodegradability**

Biodegradation : < 60 %  
Exposure time : 28 d  
Method : OECD 301 B  
Remarks : biodegradable

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Remarks : Bioaccumulation is not expected.

**12.4. Mobility in soil****12.5. Results of PBT and vPvB assessment****12.6. Other adverse effects****13. Disposal considerations****13.1. Waste treatment methods**

- Product : Disposal together with normal waste is not allowed. Special disposal required according to local regulations. Do not let product enter drains. Dispose of as special waste in compliance with local and national regulations.
- Contaminated packaging : Dispose of as unused product. Dispose of in accordance with local regulations.
- European Waste Catalogue Number : No waste code according to the European Waste Catalogue can be assigned for this product, as the intended use dictates the assignment. The waste code is established in consultation with the regional waste disposer.

**14. Transport information****14.1. UN number**

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**14.2. UN proper shipping name**

ADR : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(Coco alkylbis(hydroxyethyl)methylammonium chlorides, ethoxylated)

RID : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(Coco alkylbis(hydroxyethyl)methylammonium chlorides, ethoxylated)

IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(Coco alkylbis(hydroxyethyl)methylammonium chlorides, ethoxylated)

**14.3. Transport hazard class(es)**

ADR-Class : 9  
(Labels; Classification Code; Hazard identification No; Tunnel restriction code) 9; M6; 90; (E)

RID-Class : 9  
(Labels; Classification Code; Hazard identification No) 9; M6; 90

IMDG-Class : 9  
(Labels; EmS) 9; F-A, S-F

**14.4. Packaging group**

ADR : III

RID : III

IMDG : III

**14.5. Environmental hazards**

Labeling according to 5.2.1.8 ADR : no

Labeling according to 5.2.1.8 RID : no

Labeling according to 5.2.1.6.3 IMDG : no

Classification as environmentally hazardous according to 2.9.3 IMDG : no

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**14.6. Special precautions for user**

Not applicable.

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

IMDG : Not applicable.

**15. Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****15.2. Chemical Safety Assessment**

Currently we do not have any Information from our supplier about this.

**16. Other information****Full text of R-phrases referred to under sections 2 and 3.**

R38	Irritating to skin.
R41	Risk of serious damage to eyes.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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

H318	Causes serious eye damage.
H411	Toxic to aquatic life with long lasting effects.

|| Indicates updated section.

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The information provided in this Safety Data Sheet is correct to our knowledge at the date of its revision. The information given only describes the products with regard to safety arrangements and is not to be considered as a warranty or quality specification and does not constitute a legal relationship.

**The information contained in this Safety Data Sheet relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text**