

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006, as amended by  
Commission Regulation (EU) 2020/878



## BYK-1160

Version: 11.1  
SDB\_GB

Revision Date: 25.09.2025

Date of last issue: 02.02.2024  
Print Date: 30.09.2025

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

#### 1.1 Product identifier

Trade name : BYK-1160  
Product code : 000000000000140898

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

Use of the Substance/Mixture : Wetting & Dispersing Additive

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

Company : BYK-Chemie GmbH  
Abelstrasse 45  
46483 Wesel  
Telephone : +49 281 670-0  
Telefax : +49 281 65735  
  
Information : Regulatory Affairs  
Telephone : +49 281 670-23532  
Telefax : +49 281 670-23533  
E-mail address : GHS.BYK@altana.com

#### 1.4 Emergency telephone

+44 1235 239670

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

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

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

#### 2.2 Label elements

##### Labeling (REGULATION (EC) No 1272/2008)

Hazard pictograms : 

Signal Word : Warning

Hazard Statements : H319 Causes serious eye irritation.

Precautionary Statements : **Prevention:**  
P264 Wash skin thoroughly after handling.

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P280 Wear eye protection/ face protection.

### Response:

P305 + P351 + P338 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

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.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Chemical nature : modified polyether

#### Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
Alcohols, C12-14, ethoxylated	68439-50-9	Eye Irrit. 2; H319 Aquatic Acute 1; H400 Aquatic Chronic 3; H412 <hr/> M-Factor (Acute aquatic toxicity): 1	>= 20 - < 25
2,2' -oxybisethanol	111-46-6 203-872-2 01-2119457857-21	Acute Tox. 4; H302	>= 1 - < 3

For explanation of abbreviations see section 16.

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### SECTION 4: First aid measures

#### 4.1 Description of first-aid measures

- General advice : Move out of dangerous area.  
Show this material safety data sheet to the doctor in attendance.  
Do not leave the victim unattended.
- If inhaled : If unconscious, place in recovery position and seek medical advice.  
If symptoms persist, call a physician.
- In case of eye contact : Immediately flush eye(s) with plenty of water.  
Remove contact lenses.  
Protect unharmed eye.  
Keep eye wide open while rinsing.  
If eye irritation persists, consult a specialist.
- If swallowed : Keep respiratory tract clear.  
Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.  
If symptoms persist, call a physician.

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

- Symptoms : No information available.
- Risks : Causes serious eye irritation.

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

- Treatment : No information available.

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### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

- Suitable extinguishing media : Foam  
Carbon dioxide (CO<sub>2</sub>)  
Dry chemical
- Unsuitable extinguishing media : High volume water jet

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

- Specific hazards during fire fighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : Carbon oxides

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### 5.3 Advice for firefighters

Special protective equipment : Wear self-contained breathing apparatus for firefighting if necessary for fire-fighters

Further information : Standard procedure for chemical fires.  
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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## SECTION 6: Accidental release measures

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

Personal precautions : Use personal protective equipment.

### 6.2 Environmental precautions

Environmental precautions : Prevent further leakage or spillage if safe to do so.

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

Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).  
Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections

For disposal considerations see section 13., For personal protection see section 8.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advice on safe handling : Do not breathe vapors/dust.  
Avoid contact with skin and eyes.  
For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.  
Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Hygiene measures : When using do not eat or drink. When using do not smoke.  
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 : Keep container tightly closed in a dry and well-ventilated place. Electrical installations / working materials must comply with the technological safety standards.

Further information on storage stability : No decomposition if stored and applied as directed.

### 7.3 Specific end use(s)

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Specific use(s) : No data available

### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

##### Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
2,2' -oxybisethanol	111-46-6	TWA	23 ppm 101 mg/m <sup>3</sup>	GB EH40

##### Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006

Substance name	End Use	Routes of exposure	Potential health effects	Value
2,2' -oxybisethanol	Workers	Inhalation	Long-term systemic effects	44 mg/m <sup>3</sup>
	Workers	Inhalation	Long-term systemic effects	60 mg/m <sup>3</sup>
	Workers	Skin contact	Long-term systemic effects	43 mg/kg
	Consumers	Inhalation	Long-term systemic effects	12 mg/m <sup>3</sup>
	Consumers	Inhalation	Long-term local effects	12 mg/m <sup>3</sup>
	Consumers	Skin contact	Long-term systemic effects	21 mg/kg

##### Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006

Substance name	Environmental Compartment	Value
2,2' -oxybisethanol	Fresh water	10 mg/l
	Sea water	1 mg/l
	Intermittent releases	10 mg/l
	Fresh water sediment	20,9 mg/kg
	Soil	1,53 mg/kg
	Sewage treatment plant	199,5 mg/l
	Sea sediment	2,09 mg/kg

#### 8.2 Exposure controls

##### Personal protective equipment

Eye/face protection : Eye wash bottle with pure water  
Tightly fitting safety goggles  
Wear face-shield and protective suit for abnormal processing problems.

##### Hand protection

Material : butyl-rubber  
Break through time : 120,00 min

Remarks : The suitability for a specific workplace should be discussed

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Skin and body protection : with the producers of the protective gloves.  
Impervious clothing  
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

### Environmental exposure controls

General advice : Prevent further leakage or spillage if safe to do so.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state : liquid

Color : colorless

Odor : not significant

Odor Threshold : No data available

Melting point/ range : < 0 °C  
Method: derived

Initial boiling point : > 280 °C  
Method: derived

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Flash point : > 100,00 °C  
Method: 49 (Pensky-Martens)

Autoignition temperature : > 200,00 °C  
Method: DIN 51794

Decomposition temperature : No data available

pH : 6 (20 °C)  
Concentration: 10 %  
Method: Universal pH-value indicator

Viscosity  
Viscosity, dynamic : No data available

Solubility(ies)  
Water solubility : completely miscible

Solubility in other solvents : No data available

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Partition coefficient: n-octanol/water	:	No data available
Vapor pressure	:	< 1 hPa (20 °C) Method: derived
Relative density	:	No data available
Density	:	1,07 g/cm <sup>3</sup> (20,00 °C, 1.013 hPa) Method: 4 (20°C oscillating U-tube)
Bulk density	:	Not applicable
Relative vapor density	:	No data available

### 9.2 Other information

No data available

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No decomposition if stored and applied as directed.

### 10.2 Chemical stability

No decomposition if stored and applied as directed.

### 10.3 Possibility of hazardous reactions

Hazardous reactions : No decomposition if stored and applied as directed.

### 10.4 Conditions to avoid

Conditions to avoid : No data available

### 10.5 Incompatible materials

Materials to avoid : Strong oxidizing agents

### 10.6 Hazardous decomposition products

No decomposition if stored and applied as directed.

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## SECTION 11: Toxicological information

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

#### Acute toxicity

Not classified due to lack of data.

#### Product:

Acute oral toxicity : Acute toxicity estimate: > 2.000 mg/kg  
Method: Calculation method

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### Components:

#### **Alcohols, C12-14, ethoxylated:**

Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg

#### **Skin corrosion/irritation**

Not classified due to lack of data.

### Product:

Remarks : No data available

### Components:

#### **Alcohols, C12-14, ethoxylated:**

Species : Rabbit  
Result : Skin irritation

#### **Serious eye damage/eye irritation**

Causes serious eye irritation.

### Product:

Remarks : Causes serious eye irritation.

#### **Respiratory or skin sensitization**

##### **Skin sensitization**

Not classified due to lack of data.

##### **Respiratory sensitization**

Not classified due to lack of data.

### Product:

Remarks : No data available

### Components:

#### **2,2' -oxybisethanol:**

Test Type : Maximization Test  
Routes of exposure : Dermal  
Species : Guinea pig  
Method : Directive 67/548/EEC, Annex V, B.6.  
Result : Does not cause skin sensitization.  
GLP : yes

#### **Germ cell mutagenicity**

Not classified due to lack of data.

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### **Carcinogenicity**

Not classified due to lack of data.

### **Reproductive toxicity**

Not classified due to lack of data.

### **STOT-single exposure**

Not classified due to lack of data.

### **STOT-repeated exposure**

Not classified due to lack of data.

### **Repeated dose toxicity**

#### **Product:**

Remarks : No data available

### **Aspiration toxicity**

Not classified due to lack of data.

## 11.2 Information on other hazards

### **Endocrine disrupting properties**

#### **Product:**

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### **Further information**

#### **Product:**

Remarks : No data available

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## SECTION 12: Ecological information

### 12.1 Toxicity

#### **Product:**

Toxicity to fish : Remarks: No data available

#### **Components:**

##### **Alcohols, C12-14, ethoxylated:**

Toxicity to fish : LC50 (Danio rerio (zebra fish)): 1 - 10 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): > 0,1 - 1 mg/l

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aquatic invertebrates                      Exposure time: 48 h

M-Factor (Acute aquatic toxicity)        :    1

### 12.2 Persistence and degradability

**Product:**

Biodegradability                                :    Remarks: No data available

### 12.3 Bioaccumulative potential

**Product:**

Bioaccumulation                                :    Remarks: No data available

### 12.4 Mobility in soil

No data available

### 12.5 Results of PBT and vPvB assessment

**Product:**

Assessment                                        :    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.

### 12.6 Endocrine disrupting properties

**Product:**

Assessment                                        :    The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### 12.7 Other adverse effects

**Product:**

Additional ecological information         :    No data available

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product    :    Do not dispose of waste into sewer.  
Do not contaminate ponds, waterways or ditches with chemical or used container.  
Send to a licensed waste management company.

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Contaminated packaging : Empty remaining contents.  
Dispose of as unused product.  
Do not re-use empty containers.

### SECTION 14: Transport information

#### 14.1 UN number or ID number

ADN : Not regulated as a dangerous good  
ADR : Not regulated as a dangerous good  
RID : Not regulated as a dangerous good  
IMDG : Not regulated as a dangerous good  
IATA : Not regulated as a dangerous good

#### 14.2 UN proper shipping name

ADN : Not regulated as a dangerous good  
ADR : Not regulated as a dangerous good  
RID : Not regulated as a dangerous good  
IMDG : Not regulated as a dangerous good  
IATA : Not regulated as a dangerous good

#### 14.3 Transport hazard class(es)

ADN : Not regulated as a dangerous good  
ADR : Not regulated as a dangerous good  
RID : Not regulated as a dangerous good  
IMDG : Not regulated as a dangerous good  
IATA : Not regulated as a dangerous good

#### 14.4 Packing group

ADN : Not regulated as a dangerous good  
ADR : Not regulated as a dangerous good  
RID : Not regulated as a dangerous good  
IMDG : Not regulated as a dangerous good  
IATA (Cargo) : Not regulated as a dangerous good  
IATA (Passenger) : Not regulated as a dangerous good

#### 14.5 Environmental hazards

Not regulated as a dangerous good

#### 14.6 Special precautions for user

Not applicable

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

Not applicable for product as supplied.

## SECTION 15: Regulatory information

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

Relevant EU provisions transposed through retained EU law

- |   |   |  |
|---|---|--|
| REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)              | : | Conditions of restriction for the following entries should be considered:<br>Number on list 3<br><br>Number on list 75: If you intend to use this product as tattoo ink, please contact your vendor. |
| REACH - List of substances subject to authorisation (Annex XIV)   | : | Not applicable   |
| Fire Hazard Class   | : | -: -   |
| Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. | : | Not applicable   |

### 15.2 Chemical Safety Assessment

Not applicable

## SECTION 16: Other information

Items where relevant changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

### Full text of H-Statements

- |      |   |  |
|------|---|--|
| H302 | : | Harmful if swallowed.                              |
| H319 | : | Causes serious eye irritation.                     |
| H400 | : | Very toxic to aquatic life.                        |
| H412 | : | Harmful to aquatic life with long lasting effects. |

### Full text of other abbreviations

- |                 |   |  |
|-----------------|---|--|
| Acute Tox.      | : | Acute toxicity                           |
| Aquatic Acute   | : | Short-term (acute) aquatic hazard        |
| Aquatic Chronic | : | Long-term (chronic) aquatic hazard       |
| Eye Irrit.      | : | Eye irritation                           |
| GB EH40         | : | UK. EH40 WEL - Workplace Exposure Limits |

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GB EH40 / TWA : Long-term exposure limit (8-hour TWA reference period)

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardization; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organization for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

### Further information

#### Classification of the mixture:

Eye Irrit. 2

H319

#### Classification procedure:

Calculation method

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.

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