

# Safety data sheet

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BASF Safety data sheet according to UN GHS 4th rev.

Date / Revised: 29.03.2019

Version: 1.1

Product: **Golpanol® BEO**

(ID no. 30042694/SDS\_GEN\_00/EN)

Date of print 30.03.2019

## 1. Identification

### Product identifier

## Golpanol® BEO

Chemical name: 2- Butyne- 1,4-diol ethoxylate

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

Relevant identified uses: chemical for industrial metal-working

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

#### Company:

BASF SE  
67056 Ludwigshafen  
GERMANY

Telephone: +49 621 60-0  
E-mail address: global.info@basf.com

### Emergency telephone number

International emergency number:  
Telephone: +49 180 2273-112

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## 2. Hazards Identification

### Classification of the substance or mixture

#### According to UN GHS criteria

Acute Tox. 4 (oral)  
Skin Sens. 1B  
STOT RE (Liver) 2 (oral)

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For the classifications not written out in full in this section the full text can be found in section 16.

## Label elements

### Globally Harmonized System (GHS)

Pictogram:



Signal Word:

Warning

Hazard Statement:

H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H373	May cause damage to organs (Liver) through prolonged or repeated exposure (oral).

Precautionary Statements (Prevention):

P280	Wear protective gloves.
P260	Do not breathe dust/gas/mist/vapours.
P272	Contaminated work clothing should not be allowed out of the workplace.
P270	Do not eat, drink or smoke when using this product.
P264	Wash with plenty of water and soap thoroughly after handling.

Precautionary Statements (Response):

P333 + P311	If skin irritation or rash occurs: Call a POISON CENTER or doctor/physician.
P303 + P352	IF ON SKIN (or hair): Wash with plenty of soap and water.
P301 + P330	IF SWALLOWED: rinse mouth.
P362 + P364	Take off contaminated clothing and wash it before reuse.

Precautionary Statements (Disposal):

P501	Dispose of contents/container to hazardous or special waste collection point.
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Labeling of special preparations (GHS):

May produce an allergic reaction. But-2-yne-1,4-diol

## Other hazards

### According to UN GHS criteria

No specific dangers known, if the regulations/notes for storage and handling are considered.

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### 3. Composition/Information on Ingredients

#### Substances

##### Chemical nature

2- Butyne- 1,4-diol ethoxylate

##### Hazardous ingredients (GHS)

According to UN GHS criteria

But-2-yne-1,4-diol

Content (W/W):  $\geq 0\%$  -  $< 3\%$ 

CAS Number: 110-65-6

EC-Number: 203-788-6

INDEX-Number: 603-076-00-9

Acute Tox. 3 (Inhalation - dust)

Acute Tox. 3 (oral)

Acute Tox. 3 (dermal)

Skin Corr./Irrit. 1B

Eye Dam./Irrit. 1

Skin Sens. 1

STOT SE 3 (irr. to respiratory syst.)

STOT RE (Liver, Kidney, Spleen) 2

Aquatic Acute 3

H317, H335, H373, H314, H301 + H311 +  
H331, H402

##### Specific concentration limit:

Skin Corr./Irrit. 2: 25 -  $< 50\%$ Eye Dam./Irrit. 2: 25 -  $< 50\%$ Skin Corr./Irrit. 1B:  $\geq 50\%$ 

For the classifications not written out in full in this section the full text can be found in section 16.

#### Mixtures

Not applicable

### 4. First-Aid Measures

#### Description of first aid measures

Remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

On skin contact:

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Wash thoroughly with soap and water.

On contact with eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open.

On ingestion:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

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

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11.

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

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

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## **5. Fire-Fighting Measures**

### **Extinguishing media**

Suitable extinguishing media:  
water spray, dry powder, foam

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

harmful vapours

Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.

### **Advice for fire-fighters**

Special protective equipment:

Wear a self-contained breathing apparatus.

Further information:

The degree of risk is governed by the burning substance and the fire conditions. Contaminated extinguishing water must be disposed of in accordance with official regulations.

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## **6. Accidental Release Measures**

High risk of slipping due to leakage/spillage of product.

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

Use personal protective clothing. Information regarding personal protective measures see, section 8.

### **Environmental precautions**

Contain contaminated water/firefighting water. Do not discharge into drains/surface waters/groundwater.

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**Methods and material for containment and cleaning up**

For large amounts: Dike spillage. Pump off product.

For residues: Pick up with suitable absorbent material.

Dispose of absorbed material in accordance with regulations.

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**7. Handling and Storage****Precautions for safe handling**

No special measures necessary provided product is used correctly.

Protection against fire and explosion:

Take precautionary measures against static discharges.

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

Further information on storage conditions: Keep container tightly closed and dry; store in a cool place.

**Specific end use(s)**

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

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**8. Exposure Controls/Personal Protection****Control parameters**Components with occupational exposure limits

| 110-65-6: But-2-yne-1,4-diol

**Exposure controls**Personal protective equipment

Respiratory protection:

Respiratory protection in case of vapour/aerosol release. Particle filter with medium efficiency for solid and liquid particles (e.g. EN 143 or 149, Type P2 or FFP2)

Hand protection:

Chemical resistant protective gloves (EN 374)

Suitable materials for short-term contact (recommended: At least protective index 2, corresponding &gt; 30 minutes of permeation time according to EN 374)

butyl rubber (butyl) - 0.7 mm coating thickness

nitrile rubber (NBR) - 0.4 mm coating thickness

Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing.

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Manufacturer's directions for use should be observed because of great diversity of types.

Eye protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures

Wearing of closed work clothing is recommended.

## 9. Physical and Chemical Properties

### Information on basic physical and chemical properties

Form:	liquid	
Colour:	yellow	
Odour:	product specific	
Odour threshold:		
	not determined	
pH value:	6 - 8 (100 g/l, 23 °C)	(DIN ISO 976)
Melting point:	< -100 °C	(OECD Guideline 102)
glass transition temperature:	-79 °C	(OECD Guideline 102)
Boiling point:	(1.013,25 hPa) The substance / product decomposes therefore not determined.	
Flash point:	187 °C	(DIN EN 22719; ISO 2719)
Evaporation rate:		
	not determined	
Flammability:	not flammable	
Lower explosion limit:		
	For liquids not relevant for classification and labelling., The lower explosion point may be 5 - 15 °C below the flash point.	
Upper explosion limit:		
	For liquids not relevant for classification and labelling.	
Ignition temperature:	302 °C	(Regulation 440/2008/EC, A.15)
Vapour pressure:	0,000013 hPa (20 °C)	(OECD Guideline 104)
Density:	1,1429 g/cm3 (20 °C)	(OECD Guideline 109)

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Relative density:	1,1429 (20 °C)	(OECD Guideline 109)
Relative vapour density (air):	not determined	
Solubility in water:	completely soluble 1.000 g/l (20 °C)	(internal method)
Solubility (qualitative) solvent(s):	polar solvents soluble	
Partitioning coefficient n-octanol/water (log Kow):	1,6 - 4,3 (23 °C; pH value: 6,2) The statements are based on the properties of the individual components.	(OECD Guideline 117)
Self ignition:	Based on its structural properties the product is not classified as self- igniting.	Test type: Spontaneous self- ignition at room-temperature.
Thermal decomposition:	Not a substance liable to self-decomposition according to UN transport regulations, class 4.1.	
Viscosity, dynamic:	123 mPa.s (20 °C) The value was determined by calculation from the detected kinematic viscosity.	(OECD 114)
Viscosity, kinematic:	107 mm <sup>2</sup> /s (20 °C)	(OECD 114)
Explosion hazard:	not explosive	(Regulation 440/2008/EC, A.14)
Fire promoting properties:	Based on its structural properties the product is not classified as oxidizing.	

**Other information**

Self heating ability: It is not a substance capable of  
spontaneous heating.

pKA:

Study scientifically not justified.

Adsorption/water - soil:  
Surface tension:

KOC: 1 - 10; log KOC: 0 - 1

(calculated)

Based on chemical structure, surface  
activity is not to be expected.

Flow time:

< 30 s  
(20 °C)

(DIN 53211)

Grain size distribution:

The substance / product is marketed or used in a non solid or  
granular form.

Other Information:

If necessary, information on other physical and chemical parameters is indicated in this section.

## 10. Stability and Reactivity

### Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals: Corrosive effects to metal are not anticipated.

### Chemical stability

The product is stable if stored and handled as prescribed/indicated.

### Possibility of hazardous reactions

Reacts with alkalis. Reacts with acids. Reacts with heavy metal salts. Reacts with oxidizing agents.

### Conditions to avoid

See MSDS section 7 - Handling and storage.

### Incompatible materials

Substances to avoid:

heavy metal salts, mercury salts, strong bases, strong acids

### Hazardous decomposition products

Hazardous decomposition products:

No hazardous decomposition products if stored and handled as prescribed/indicated.

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## 11. Toxicological Information

### Information on toxicological effects

#### Acute toxicity

Assessment of acute toxicity:

Of moderate toxicity after single ingestion.

Virtually nontoxic after a single skin contact.

Experimental/calculated data:

LD50 rat (oral): 300 - 2.000 mg/kg (BASF-Test)

LD50 rat (dermal): > 5.000 mg/kg

#### Irritation

Assessment of irritating effects:

Not irritating to eyes and skin.



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Experimental/calculated data:

Skin corrosion/irritation rabbit: non-irritant (BASF-Test)

Serious eye damage/irritation rabbit: non-irritant

Respiratory/Skin sensitization

Assessment of sensitization:

Caused skin sensitization in animal studies.

Germ cell mutagenicity

Assessment of mutagenicity:

The substance was not mutagenic in bacteria. No mutagenic effect was found in various tests with mammalian cell culture and mammals. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Carcinogenicity

Assessment of carcinogenicity:

The whole of the information assessable provides no indication of a carcinogenic effect.

Reproductive toxicity

Assessment of reproduction toxicity:

The results of animal studies gave no indication of a fertility impairing effect. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Developmental toxicity

Assessment of teratogenicity:

In animal studies the substance did not cause malformations.

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Specific target organ toxicity (single exposure)

Assessment of STOT single:

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

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:

The substance may cause damage to the liver after repeated ingestion.

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## 12. Ecological Information

### Toxicity

Toxicity to fish:

LC50 (96 h) > 100 mg/l, *Leuciscus idus* (DIN 38412 Part 15, static)

Analogous: Assessment derived from products with similar chemical character.

Aquatic invertebrates:

EC0 (48 h) > 100 mg/l, *Daphnia magna* (OECD Guideline 202, part 1, static)

Nominal values (confirmed by concentration control analytics) No effects at the highest test concentration.

Aquatic plants:

EC50 (72 h), algae

not determined

Microorganisms/Effect on activated sludge:

EC50 (30 min) > 1.000 mg/l, (OECD Guideline 209, static)

Nominal concentration.

Chronic toxicity to fish:

No data available regarding toxicity to fish.

Chronic toxicity to aquatic invertebrates:

No data available regarding toxicity to daphnids.

Assessment of terrestrial toxicity:

No data available concerning terrestrial toxicity.

### Persistence and degradability

Assessment biodegradation and elimination (H<sub>2</sub>O):

Not readily biodegradable (by OECD criteria).

Elimination information:

60 - 70 % DOC reduction (28 d) (OECD 301 A (new version)) (aerobic, activated sludge, domestic, non-adapted)

Assessment of stability in water:

According to structural properties, hydrolysis is not expected/probable.

### Bioaccumulative potential

Assessment bioaccumulation potential:

No significant accumulation in organisms is expected as a result of the distribution coefficient of n-octanol/water (log Pow).

### Mobility in soil

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Assessment transport between environmental compartments:

Volatility: The substance will not evaporate into the atmosphere from the water surface.

Adsorption in soil: Adsorption to solid soil phase is not expected.

### Results of PBT and vPvB assessment

According to Annex XIII of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not fulfill the criteria for PBT (Persistent/bioaccumulative/toxic) and vPvB (very persistent/very bioaccumulative).

### Other adverse effects

The substance is not listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer.

### Additional information

Add. remarks environm. fate &amp; pathway:

Treatment in biological waste water treatment plants has to be performed according to local and administrative regulations.

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## 13. Disposal Considerations

### Waste treatment methods

Must be disposed of or incinerated in accordance with local regulations.

Contaminated packaging:

Uncontaminated packaging can be re-used.

Packs that cannot be cleaned should be disposed of in the same manner as the contents.

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## 14. Transport Information

### Land transport

ADR

	Not classified as a dangerous good under transport regulations
UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

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**RID**

	Not classified as a dangerous good under transport regulations
UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

**Inland waterway transport****ADN**

	Not classified as a dangerous good under transport regulations
UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user:	None known

**Transport in inland waterway vessel**

Not evaluated

**Sea transport****IMDG**

	Not classified as a dangerous good under transport regulations
UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

**Air transport****IATA/ICAO**

	Not classified as a dangerous good under transport regulations
UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable

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Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

### Transport in bulk according to Annex II of MARPOL and the IBC Code

Regulation:	Not evaluated
Shipment approved:	Not evaluated
Pollution name:	Not evaluated
Pollution category:	Not evaluated
Ship Type:	Not evaluated

## 15. Regulatory Information

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

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

## 16. Other Information

Information on intended use: This product is of industrial quality and unless otherwise specified or agreed intended exclusively for industrial use. Any other intended applications should be discussed with the manufacturer. This includes the mentioned and recommended usage. In particular this concerns the application for products that are the object of special standards and regulations.

Full text of classifications, hazard symbols and hazard statements, if mentioned in section 2 or 3:

Acute Tox.	Acute toxicity
Skin Sens.	Skin sensitization
STOT RE	Specific target organ toxicity — repeated exposure
Skin Corr./Irrit.	Skin corrosion/irritation
Eye Dam./Irrit.	Serious eye damage/eye irritation
STOT SE	Specific target organ toxicity — single exposure
Aquatic Acute	Hazardous to the aquatic environment - acute
H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.
H373	May cause damage to organs (Liver, Kidney, Spleen) through prolonged or repeated exposure.
H314	Causes severe skin burns and eye damage.
H301 + H311 + H331	Toxic if swallowed, in contact with skin or if inhaled
H402	Harmful to aquatic life.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the

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corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

Vertical lines in the left hand margin indicate an amendment from the previous version.