

# Safety data sheet

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

Date / Revised: 31.08.2017

Product: **Kollisolv® PEG 400**

Version: 1.3

(ID no. 30554047/SDS\_GEN\_00/EN)

Date of print 01.09.2017

## 1. Identification

### Product identifier

## Kollisolv® PEG 400

Chemical name: polyethylene glycol

CAS Number: 25322-68-3

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

Relevant identified uses: pharmaceutical excipient

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

Company:

BASF SE

67056 Ludwigshafen

GERMANY

Operating Division Nutrition and Health

Telephone: +49 621 60-48434

E-mail address: EN-global-safety-data@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

No need for classification according to GHS criteria for this product.

## Label elements

### Globally Harmonized System (GHS)

The product does not require a hazard warning label in accordance with GHS criteria.

## Other hazards

### According to UN GHS criteria

The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) 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

polyethylene glycol

CAS Number: 25322-68-3

Ph. Eur.: Macrogols

### Mixtures

Not applicable

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## 4. First-Aid Measures

### Description of first aid measures

Remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air.

On skin contact:

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:

Rinse mouth and then drink plenty of water.

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

Symptoms: No significant symptoms are expected due to the non-classification of the product.

### **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, foam, carbon dioxide, dry powder

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

Burning produces harmful and toxic fumes.

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

Special protective equipment:  
Wear a self-contained breathing apparatus.

Further information:

Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

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## **6. Accidental Release Measures**

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

No special precautions necessary. Ensure adequate ventilation.

### **Environmental precautions**

Do not discharge into drains/surface waters/groundwater.

### **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 contaminated material as prescribed.

### **Reference to other sections**

Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

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## 7. Handling and Storage

### Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice.

Protection against fire and explosion:

The substance/product is non-combustible. No special precautions necessary.

### Conditions for safe storage, including any incompatibilities

Suitable materials for containers: High density polyethylene (HDPE), Low density polyethylene (LDPE), Stainless steel 1.4301 (V2), Stainless steel 1.4401, glass

Further information on storage conditions: Keep container tightly closed and dry.

### 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

| 25322-68-3: polyethylene glycol

### Exposure controls

Personal protective equipment

Respiratory protection:

Respiratory protection in case of vapour/aerosol release. Combination filter for gases/vapours of organic compounds and solid and liquid particles (f.e. EN 14387 Type A-P2)

Hand protection:

Chemical resistant protective gloves (EN 374)

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

Handle in accordance with good industrial hygiene and safety practice. Hands and/or face should be washed before breaks and at the end of the shift.

## 9. Physical and Chemical Properties

### Information on basic physical and chemical properties

Form:	liquid	
Colour:	colourless	
Odour:	almost odourless	
Odour threshold:	not determined	
pH value:	4,5 - 7,0 (20 °C)	
freezing range:	approx. 0 - 10 °C	
Boiling point:	The substance / product decomposes therefore not determined.	
Flash point:	244 °C	(DIN ISO 2592)
Evaporation rate:	not determined	
Flammability:	not flammable	
Flammability of Aerosol Products:	not applicable, the product does not form flammable aerosoles	
Lower explosion limit:	For liquids not relevant for classification and labelling.	
Upper explosion limit:	For liquids not relevant for classification and labelling.	
Ignition temperature:	320 °C	(DIN 51794)
Vapour pressure:	< 0,1 hPa (20 °C)	
Density:	approx. 1,13 g/cm <sup>3</sup> (approx. 20 °C)	(DIN 51757)
Relative vapour density (air):	not determined	
Solubility in water:	soluble	
Solubility (qualitative) solvent(s):	Water, ethanol; ethyl alcohol, acetone; propan-2-one; propanone, trichloromethane; chloroform soluble	
Partitioning coefficient n-octanol/water (log Kow):	not determined	
Thermal decomposition:	> 200 °C	
Viscosity, kinematic:	approx. 105 - 152 mm <sup>2</sup> /s (approx. 20 °C)	(DIN 51562)
Explosion hazard:	not explosive	
Fire promoting properties:	not fire-propagating	

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**Other information**

Bulk density:

not relevant

Hygroscopy:

hygroscopic

Molar mass:

400 g/mol

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**10. Stability and Reactivity****Reactivity**

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

Corrosion to metals: No corrosive effect on metal.

Formation of Remarks:

flammable gases:

Forms no flammable gases in the presence of water.

**Chemical stability**

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

**Possibility of hazardous reactions**

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

**Conditions to avoid**

Temperature: &lt; 0 °C

**Incompatible materials**

Substances to avoid:

acids, oxidizing agents, isocyanates

**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:

Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact.

Experimental/calculated data:

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LD50 rat (oral): > 8.000 mg/kg (similar to OECD guideline 401)  
No mortality was observed.

LD50 rabbit (dermal): > 2.000 mg/kg (similar to OECD guideline 402)

#### Irritation

Assessment of irritating effects:  
Not irritating to eyes and skin.

Experimental/calculated data:

Skin corrosion/irritation rabbit: non-irritant (similar to OECD guideline 404)

Serious eye damage/irritation rabbit: non-irritant (similar to OECD guideline 405)

#### Respiratory/Skin sensitization

Assessment of sensitization:  
The chemical structure does not suggest a sensitizing effect.

#### Germ cell mutagenicity

Assessment of mutagenicity:  
The substance was not mutagenic in bacteria. The substance was not mutagenic in mammalian cell culture. The substance was not mutagenic in a test with mammals.

#### 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.

#### Developmental toxicity

Assessment of teratogenicity:  
No indications of a developmental toxic / teratogenic effect were seen in animal studies.

#### Specific target organ toxicity (single exposure)

Assessment of STOT single:  
Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

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

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Assessment of repeated dose toxicity:

The substance may cause damage to the kidney after repeated ingestion of high doses, as shown in animal studies.

#### Aspiration hazard

No aspiration hazard expected.

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## 12. Ecological Information

### Toxicity

Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Toxicity to fish:

LC50 (96 h) > 500 mg/l, *Leuciscus idus* (DIN 38412 Part 15, static)

The details of the toxic effect relate to the nominal concentration. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Microorganisms/Effect on activated sludge:

EC20 (30 min) > 100 mg/l, activated sludge, industrial (DIN EN ISO 8192-OECD 209-88/302/EEC,P. C, aerobic)

### Persistence and degradability

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

Readily biodegradable (according to OECD criteria). Easily eliminated from water.

Elimination information:

90 - 100 % DOC reduction (13 d) (OECD 301 A (new version)) (aerobic, activated sludge, domestic)

50 - 60 % DOC reduction (59 d) (DIN EN ISO 11734) (anaerobic, anaerobic sludge)

88 % DOC reduction (7 d) (OECD Guideline 302 B) (aerobic, activated sludge, industrial)

### Bioaccumulative potential

Bioaccumulation potential:

Accumulation in organisms is not to be expected.

### Mobility in soil

Assessment transport between environmental compartments:

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

### Results of PBT and vPvB assessment



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According to Annex XIV of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria. Self classification

### **Other adverse effects**

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

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## **13. Disposal Considerations**

### **Waste treatment methods**

Observe national and local legal requirements.  
Incinerate in suitable incineration plant, observing local authority regulations.

Contaminated packaging:  
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

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

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

**UN number**

See corresponding entries for "UN number" for the respective regulations in the tables above.

**UN proper shipping name**

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See corresponding entries for "UN proper shipping name" for the respective regulations in the tables above.

#### **Transport hazard class(es)**

See corresponding entries for "Transport hazard class(es)" for the respective regulations in the tables above.

#### **Packing group**

See corresponding entries for "Packing group" for the respective regulations in the tables above.

#### **Environmental hazards**

See corresponding entries for "Environmental hazards" for the respective regulations in the tables above.

#### **Special precautions for user**

See corresponding entries for "Special precautions for user" for the respective regulations in the tables above.

#### **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

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## **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.

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## **16. Other Information**

Any other intended applications should be discussed with the manufacturer. Corresponding occupational protection measurements must be followed.

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 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.

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