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# Technical Information

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## Kollisolv<sup>®</sup> PEG 300

Polyethylene Glycol USP/NF, FCC, Macrocols Ph. Eur., Macrogol 300 JP

Liquid polyethylene glycols for the pharmaceutical industry

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® = Registered trademark of BASF in many countries.

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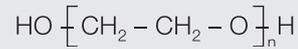
We create chemistry

## 1. Technical properties

### Description

Kollisol® PEG 300 is colorless, almost odorless and tasteless liquid at room temperature. The product is manufactured by alkali-catalysed polymerization of ethylene oxide with subsequent neutralization of the catalyst.

### Structural formula



With  $n = 6$

The number in the name of the product indicates its average molecular weight.

### CAS-number

25322-68-3

### Hygroscopicity

At room temperature and 80% r. h. approx. 55% of increase of weight was noted over a period of 42 days.

### Molecular weight

The average molecular weight is 300 g/mol.

### Solubility

Kollisol® PEG 300 is readily soluble in water, ethanol, acetone, glycols and chloroform and insoluble in ether, paraffin, oils and fats.

### Viscosity

Temperature: 20 °C – 80 °C

GP: 500 1/s

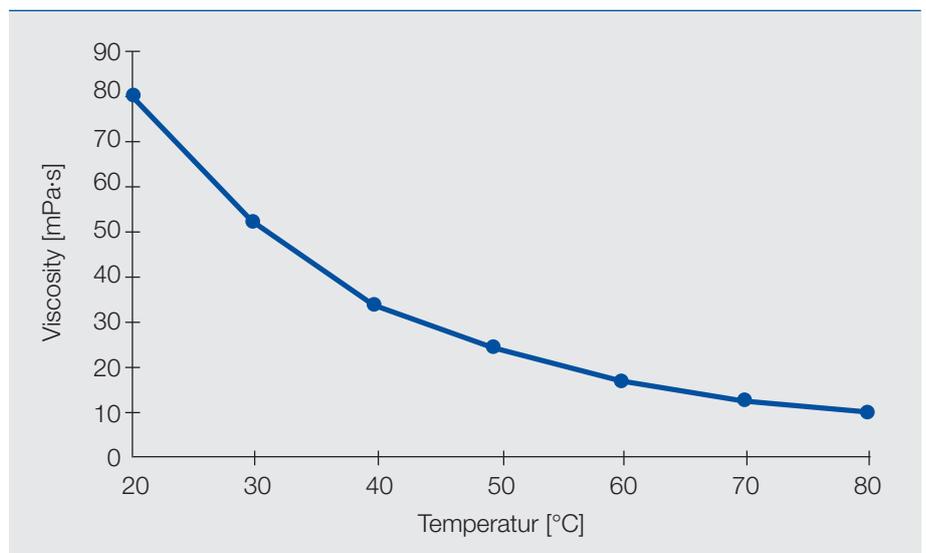


Figure 1: Dynamic viscosity of Kollisol® PEG 300

### Approximate density

At 20 °C density is approx. 1.13 g/cm<sup>3</sup>

## 2. Handling

Please refer to the individual Material Safety Data sheet (MSDS) for instructions on safe and proper handling and disposal.

## 3. Example application

The low-molecular weight liquid polyethylene glycols Kollisolv® PEG 300 is excellent solvent for a large number of substances that do not readily dissolve in water. It's widely used as solvent and solubilising agent for active substances and excipients in liquid and semi-solid preparations.

It is the ability of PEGs to form complexes with active substances that is responsible for their excellent solvent power. However, equilibrium constants for complex formation vary considerably from one substance to another, and certain drugs such as Penicillin G and Bacitracin can even become inactivated. The effect of the polyethylene glycol on the efficacy and absorption of a drug must therefore always be determined in tests. With regard to incompatible substances, please see the remarks in the European Pharmacopoeia, Vol. II/3, Monographs M1, Macrogol 300, p. 3. Polyethylene glycols can also be used to adjust the viscosity of liquid pharmaceutical preparations and ointments, to modify their absorption properties and to stabilise the preparation.

In the manufacture of soft gelatin capsules, liquid macrogol can be used as carrier for dissolved or suspended drugs.

Mixtures of solid and liquid polyethylene glycols can be used as water-soluble bases for ointments, suppositories and ovula.

For burns from chlorophenols or chlorocresols, a mixture of two parts Kollisolv® PEG 300 and one part ethanol is recommended.

## 4. Safety data sheet

Safety data sheets are available on request and are sent with every consignment.

## 5. Retest date and storage conditions

Please refer to Quality & Regulatory Product Information (QRPI).

## 6. Specification

For current specification, please speak to your local BASF sales or technical representative.

## 7. Regulatory status

Please refer to Quality & Regulatory Product Information (QRPI).

## 8. Toxicological data

The toxicological abstracts are available on request.

## 9. PRD and Article numbers

PRD-No.*	Product name	Article Numbers	Packaging
30554046	Kollisolv® PEG 300	50251695	130 kg Plastic drums
		50259796	0.5 kg Plastic bottle
		50548771	130 kg Plastic drums

\* BASF's commercial product number.

## 10. Publications

<https://pharmaceutical.basf.com/en.html>

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