

Technical Information

1,2-Propylene Glycol Care

PRD 30061790

Valid since	29.08.2023
Revision	4.0
WF-No.	33824
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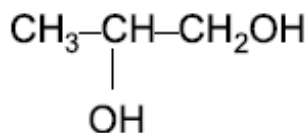
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Care Chemicals**Low-volatility, water-miscible, odorless solvent of very high purity; particularly suitable for applications in cosmetics****INCI name(s)**

Propylene Glycol

Chemical description

1,2-propanediol

Physical form:**Structural Formula****CASR-No.**

57-55-6

Ingredient

1,2-Propylene glycol

Remark

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Characteristic values

The specifications stated in the paragraphs 'Quality control data' and 'Additional product descriptive data' finally and conclusively describe the properties of the product.

Quality control data

(Data which is used for quality release and is certified for each batch.)

Test property	Specification	Test method
Appearance	clear, colorless liquid	Visual
Identification (IR)	conforms to monograph requirement	USP
Purity (CGC)	min. 99.8 %	PM02337QC
Relative density d (20/20)	1.035 - 1.040	PM00379
Relative density d (25/25)	1.035 - 1.037	PM00379
Refractive index n (20/D)	1.431 - 1.433	Ph.Eur.
Water (KF-titration)	max. 0.2 %	Ph.Eur.
Sulfated ash / Residue on ignition	max. 70 ppm	USP/Ph.Eur.
Chloride	max. 70 ppm	PM00621
Sulfate	max. 60 ppm	PM00621
Sum of unspecified impurities (CGC)	max. 0.1 %	PM02337QC
1,3-Propanediol (CGC)	max. 100 ppm	PM02337QC
Organic chlorine compounds as Cl	max. 1 ppm	PM00621
Acidity	conforms to monograph requirement	PM00158
Oxidizing substances	conforms to monograph requirement	Ph.Eur.
Reducing substances	conforms to monograph requirement	Ph.Eur.
Color (Hazen)	max. 10	PM00914
Identification: Ethylene glycol	conforms to monograph requirement	PM00637QC, USP
Identification: Diethylene glycol	conforms to monograph requirement	PM00637QC, USP
Ethylene glycol (GC)	max. 0.1 %	PM00637QC, USP
Diethylene glycol (GC)	max. 0.1 %	PM00637QC, USP

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Care Chemicals**Additional product descriptive data**

(Data which is proven statistically but not determined regularly.)

Test property	Specification	Test method
Arsenic	max. 2 ppm	PM01683
Heavy metals	max. 5 ppm	PM01683

Storage information**Shelf life**

24 months

Storage conditions

In original sealed containers and protected from moisture

Stabilising additives / Auxiliaries**Preservatives**

not present

Antioxidants

not present

Solvents

not present

Others

not present

General information**Raw material basis**

Petrochemical: (mineral oil / natural gas)

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Care Chemicals**Composition hints for finished product label****INCI Components****INCI Name (US/EU/CN)**

Propylene Glycol

Content

Complete *

* Complete means conclusively describes the substance

Miscellaneous information

1,2-Propylene Glycol Care is primarily intended for use as ingredients in personal care applications and conform alone to the analytical specification of the respective pharmaceutical monograph (Ph. Eur. and/or USP).

This is not to be understood as conformance with pharmaceutical or food regulations management system requirements in excess of the analytical specification.

Performance

Propylene Glycol is a clear colorless viscous liquid of low volatility with a boiling range of 184 - 189 °C. It is odorless, neutral and hygroscopic. It is miscible in all proportions with water, lower alcohols, esters and ketones. Propylene Glycol is a germicide of approximately equal strength to ethanol. In solutions it suppresses the growth of microorganisms, the concentration required depending on the species, though generally 15 - 30 % Propylene Glycol in the solution achieves the desired effect.

Example of use

Propylene Glycol is used

- in the manufacture of mouthwashes, toothpastes, ointments, skin creams, shampoos and perfumes (solutions of the ingredients for these products in Propylene Glycol usually remain clear even when they are highly diluted with water);
- as a preservative in cosmetic products in the form of emulsions;
- as a solvent for fragrances;
- as an extractant for active principles from natural products;
- as a lubricant for machines, e.g. in the cosmetics industry.



We create chemistry

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Intended for use as cosmetic ingredient

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