



# Dipropylene Glycol

## Fragrance Grade

&lt; Updated in Jan 29, 2019 &gt;

### Description

Dipropylene Glycol Fragrance Grade (DPG FG) is a co product from the manufacture of monopropylene glycol by hydrolysis of Propylene Oxide (PO) with excess water at the high temperature and high pressure. DPG FG is a distilled product of greater than 99.80% purity.

DPG FG is a waterless, white, clear, odorless, hygroscopic liquid having low volatility. It is completely water soluble and is an excellent solvent for many organic materials. DPG FG is designed for use in odor sensitive applications such as fragrances and cosmetics.

### Sales

### Specifications

Property	Specifications	Test Method
Odor, Characteristic	Pass	Olfactory
DPG Assay, wt. %	Min. 99.80	USP
MPG, wt. %	Max 0.20	USP
Specific Gravity , 20/20 °C	1.020 –1.025	USP
Color, APHA	Max 10	ASTM D 1209
Water , wt.ppm	Max. 1,000	USP
Acidity , wt.ppm (as Acetic Acid)	Max. 30	USP
Iron , wt.ppm	Max. 0.10	ASTM E 394
Chlorides , wt.ppm	Max. 1.0	USP
Heavy metal(as Pb) , wt.ppm	Max. 20	USP
Arsenic , wt.ppm	Max. 2.0	USP
Residue, wt.ppm	Max. 30	USP
Distillation Range (1atm), °C IBP/DP	228 - 240	ASTM D 1078

SKC's DPG FG for personal care is designated as safe product by the Cosmetic Ingredient Review (CIR) and International Fragrance Association (IFRA).

### Applications

DPG FG is an excellent fragrance carrier and solvent for deodorants. It exhibits good co-solvency with water, soap bases, oils, and hydrocarbons. This product is panel selected to ensure its low odor and is of superior quality due to batch-to-batch consistency of isomer distribution.

DPG FG is used in the formulation of Perfumes; Skin care (creams, lotions, sun-care products); Deodorants/antiperspirants; Hair care (shampoos, conditioners, coloring products); Shaving products; Bath and shower products.



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## Physical Properties

Items	Properties
Chemical Name	Oxybispropanol
Formula	C <sub>6</sub> H <sub>14</sub> O <sub>3</sub>
Molecular Weight(g/mol)	134.2
CAS Number	25265-71-8
EINECS Number	246-770-3
Distillation Range , 101.3 kPa (1atm)	228 - 240 °C (442-464 °F)
Vapor Pressure, 25 °C (77 °F)	0.0021 kPa (0.016 mmHg)
Freezing Point	< -60 °C (< -76 °F)
Pour Point	-39 °C (-38.2 °F)
Specific Gravity, 20/20 °C (68/68 °F)	1.0238
Density, 25 °C (77 °F)	1.022 g/cm <sup>3</sup>
60 °C (140 °F)	0.998 g/cm <sup>3</sup>
Refractive Index, 20 °C (68 °F)	1.439 - 1.442
Viscosity, 25 °C (77 °F)	75.0 cPs (mPa.s)
60 °C (140 °F)	10.9 cPs (mPa.s)
Specific Heat, 25 °C (77 °F)	2.18 J/(g°K)(0.52 Btu/lb°°F)
Surface Tension, 25 °C (77 °F)	35 mN/m(dyne/cm)
Flash Point	124 °C (255 °F)
Thermal Conductivity, 25 °C (77 °F)	0.1672 W/(m°K)(0.09661 Btu/hr ft°°F)
Electrical Conductivity, 25 °C (77 °F)	< 6 micro S/m
Heat of Formation	-628 KJ/mol (-150 Kcal/g-mol)
Heat of Vaporization, 25 °C (77 °F)	45.4 kJ/mol(257/lb°°F)

## Material Safety Policy

Before handling the product, The Material Safety Data Sheet (MSDS) should always be read and understood thoroughly and adequate safety procedures should be followed. MSDS offers information on the toxicity, environmental and industrial hygiene aspect of our products.

## Handling and Storage

Precautionary measures include: use only with adequate ventilation; avoid breathing vapor, mist or gas; avoid contact with eyes, skin and clothing; keep container closed; and wash thoroughly after handling. DPG FG has a shelf life of 2 years when stored below 40°C in closed containers away from UV light.

## Container Material Selection

Stainless Steel, aluminum, plastic or carbon steel with phenolic coating are recommended.

## Shipping

Product is available in barges, lined tank cars and dedicated tank truck, and 215kg nonreturnable drums.

DOT Label required : None

Freight classification : Propylene Glycol

Additional information is available from your SKC representative , our web site or calling :

Web Site : [www.skc.kr](http://www.skc.kr)

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