Propylene glycol

Product description:
The product is produced by hydrolysis of propylene oxide (PO) with purified water at high temperature & pressure.
Clear, relatively non-toxic, hygroscopic liquid with low vapour pressure. It is practically colourless, odourless and soluble in water.

Packaging:
Available in 1 kg (025.210.8), 5 kg (025.212.5) and 20 kg (025.211.6) packaging.

Quality Statements:
Manufactured in accordance with the United States Pharmacopeia (USP), meets the requirements of other standards such as the European Pharmacopeia (EP), the Food Chemicals Codex (FCC), the Chinese Food and Drug Administration (CFDA).
Food grade (E1250).

Material safety policy
Before handling the product, the Material Safety Data Sheet (MSDS) should always be read and understood and adequate safety procedures should be followed.
MSDS provides information on the toxicity, environmental and industrial hygiene aspect of this product.

Storage
Store below 40°C. Avoid exposure to UV light, air and heat.

Properties

Properties	Specification	Test method
ASSAY, MPG, wt. %	Min. 99.80	USP
Residue on Ignition, mg (wt. ppm)	Max. 1 (Max. 20)	USP
Chlorides, wt. ppm	Max. 1.0	USP
Sulphate, wt. ppm	Max. 10	USP
Heavy metal (as Pb), wt. ppm	Max. 1.0	USP
Colour , APHA	Max. 10	ASTM D 1209
Specific Gravity, 25/25 °C	1.035 - 1.037	USP
Acidity, ml, 0.1N NaOH (ppm as Acetic Acid)	Max. 0.05 (Max. 30)	USP
Water, wt. ppm	Max. 700	USP
Iron, wt. ppm	Max. 1.0	ASTM E 394
Distillation range (1atm), °C IBP/DP	186 - 189	ASTM D 1078

Specifications

025.210.8- 025.212.5 Propylene glycol

Physical Properties:

Items	**Properties**
IUPAC Name	1,2-Propanediol
Formula	CH3-CH(OH)-CH2OH ; C3H8O2
Molecular Weight (g/mol)	76.10
CAS Number	57-55-6
EINECS Number	200-338-0
Boiling point. 101.3 kPa (1atm)	187°C (369°F)
Distillation range , 101.3 kPa (1atm)	186 - 189°C (367-372°F)
Vapour pressure, 20°C (68°F)	0.011 kPa (0.08 mmHg)
Vapour pressure, 25°C (77°F)	0.017 kPa (0.13 mmHg)
Freezing point	< -59°C (<-74.2°F)
Pour point	< -57°C (-71°F)
Specific Gravity, 20/20°C (68/68°F) 25/4°C (77/39°F) 1.033 60/4°C (140/39°F) 1.007	 1.038 1.033 1.007
Refractive index n20/D, 20°C (68°F)	1.4310 - 1.4330
Viscosity, 25°C (77°F) 60°C (140°F)	 48.6 cPs(mPa.s) 8.4 cPs (mPa.s)
Specific heat, 25°C (77°F)	2.51 J/goK(0.60 Btu/lb/°F)
Surface tension, 25°C (77°F)	36 mN/m (36 dynes/cm)
Flash point	104°C (220°F)
Auto-ignition temperature	371°C (700°F)
Thermal conductivity, 25°C (77°F)	0.2061 W/moK(0.1191 Btu/hr ft°F)
Electrical conductivity, 25°C (77°F)	10 micro S/m
Heat of formation	-422 KJ/mol (-101 Kcal/g-mol)
Heat of evaporation, 25°C (77°F)	67.0 kJ/mol (379 Btu/lb/°F)

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