



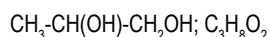
Technical Data

DOW™ Propylene Glycol, Industrial Grade

Product Description

Propylene Glycol, Industrial (PGI) Grade, (CAS #57-55-6, 1,2-Propanediol) is a high purity material produced by the high temperature and high pressure hydrolysis of propylene oxide (PO) with excess water. PGI is a distilled product with a purity specification of minimum 99.5% and is available from The Dow Chemical Company in drum, IBC and bulk quantities. PGI is a colorless, water soluble, hygroscopic liquid with a characteristic glycol odor, medium viscosity, low vapor pressure and low toxicity.

Structure



Typical Properties

Property	Typical Value
Molecular weight (g/mol)	76.10
Boiling point, 101.3 kPa (1 atm)	187.4°C (369.3°F)
Distillation range, 101.3 kPa (1 atm)	186-189°C (367°F-372°F)
Vapor pressure	
20°C (68°F)	0.011 kPa (0.08 mm Hg)
25°C (77°F)	0.017 kPa (0.13 mm Hg)
Freezing point	Supercools
Pour point	< -57°C (-71°F)
Specific gravity	
20/20°C (68/68°F)	1.038
25/4°C (77/39°F)	1.033
60/4°C (140/39°F)	1.007
Refractive index n _{20/D} , 20°C (68°F)	1.4310-1.4330
Viscosity, 25°C (77°F)	48.6 centipoise (mPa.s)
60°C (140°F)	8.42 centipoise (mPa.s)
Specific heat, 25°C (77°F)	2.51 J/(g°K) (0.60 Btu/lb/°F)
Surface tension, 25°C (77°F)	36 mN/m (36 dynes/cm)
Flash point, Pensky-Martens Closed Cup	104°C (220°F)
Autoignition temperature	371°C (700°F)
Thermal conductivity, 25°C (77°F)	0.2061 W/(m°K) (0.1191 Btu hr'ft ⁻¹ °F ⁻¹)
Electrical conductivity, 25°C (77°F)	10 micro S/m (0.1 * 10 ⁻⁷ mhos/cm)
Heat of formation	-422 kJ/mol (-101 Kcal/g-mol)
Heat of vaporization, 25°C (77°F)	67 kJ/mol (379 Btu/lb)

These properties do not constitute specifications.

Classification/Registry Numbers

CAS number	57-55-6
EINECS number	200-338-0

Applications

- Flotation agent
- Extraction solvent

Storage and Packaging Recommendations

PGI has a shelf life of one year when stored below 40°C (104°F) in closed containers away from sources of UV light.

Product Stewardship

When considering the use of any Dow products in a particular application, you should review the latest Material Safety Data Sheets from Dow and ensure that they are intended for safe use. For Material Safety Data Sheets and other product safety information, contact Dow. Before handling any other products mentioned in the text, you should obtain available product safety information and take necessary steps to ensure safety of use.

No chemical should be used as or in a food, drug, medical device or cosmetic, or in a product or process in which it may contact a food, drug, medical device or cosmetic until the user has determined the suitability and legality of the use. Since government regulations and use conditions are subject to change, it is the user's responsibility to determine that this information is appropriate and suitable under current, applicable laws and regulations.

Dow requests that the customer read, understand, and comply with the information contained in this publication and the current Material Safety Data Sheet(s). The customer should furnish the information in this publication to its employees, contractors and customers, or any other users of the product(s), and request that they do the same.

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