

**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 colorless, water soluble, hygroscopic liquid with a characteristic glycol odor, medium viscosity, low vapor pressure and low toxicity.

**Structure**  $\text{CH}_3\text{-CH(OH)-CH}_2\text{OH}$ ;  $\text{C}_3\text{H}_8\text{O}_2$

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)	1.03
	25/4°C (77/39°F)	8
	60/4°C (140/39°F)	1.03
		3
		1.00
		7
	Refractive index n <sub>20/D</sub> , 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 <sup>-1</sup> ft <sup>-1</sup> °F <sup>-1</sup> )
	Electrical conductivity, 25°C (77°F)	10 micro S/m (0.1 * 10 <sup>-7</sup> 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.

END OF MSDS