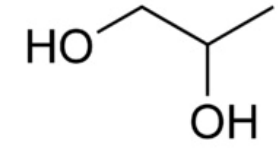
MPG-Industrial

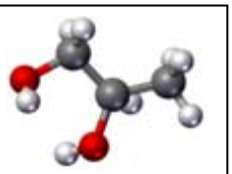
Chemical Formula: $HO\text{-}CH_2\text{-}CH_2(OH)\text{-}CH_3$

CAS Registry Number: 57-55-6

Molecular Weight: 76.09

PRODUCT INFORMATION





Synonyms:

- (.+-.)-1,2-Propanediol
- (.+-.)-Propylene glycol
- (RS)-1,2-Propanediol
- 1,2-(RS)-Propanediol
- 1,2-DIHYDROXYPROPANE
- 1,2-PROPANDIOL
- 1,2-Propanediol
- 1,2-Propylene glycol
- 1,2-PROPYLENEGLYCOL
- 1000PG
- 2,3-Propanediol
- 2: PN: US20050147610 SEQID: 2 claimed protein
- 2-Hydroxypropanol
- Adeka PG
- Adeka Propylene Glycol PG-P
- DL-1,2-Propanediol
- dl-Propylene glycol
- Dowfrost
- Immunoglobulin G1, anti-(human interleukin 18 (human heavy chain constant domain)
- Isopropylene glycol
- Methyl ethylene glycol
- Methylethyl glycol
- Methylethylene glycol
- MONO PROPYLENE GLYCOL
- Monopropylene glycol
- NSC 69860
- PG 12
- PG-T
- PG-T (glycol)
- POLYESTER OF 1,2-PROPANEDIOL
- ProGlyc 55
- Propan-1,2-diol
- Propane-1,2-diol

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Description

MPG – Industrial is a high purity grade of monopropylene glycol (MPG). It is a clear, colourless and practically odourless, hygroscopic liquid, completely soluble in water. MPG – Industrial is miscible in all proportions with low molecular weight aliphatic alcohols and ketones. It is slightly to moderately soluble in aromatics hydrocarbon solvents and only slightly miscible with aliphatics hydrocarbon solvents.

Typical properties			
Property	**Test Method**	**Unit**	**Value**
Purity by GC	ASTM E-202	% (m/m)	99.5 min
Dipropylene glycol		% (m/m)	0.1 max
Colour	ASTM D1209	Pt-Co	5 max
Water	ASTM E-202; E-203	% (m/m)	0.2 max
Acidity as Acetic Acid	ASTM E-202; D-1613	% (m/m)	0.005 max
Chlorides	USP	ppm	1.0 max
Sulphate	USP	% (m/m)	0.006 max
Iron	ASTM E-202	PPM	1.0 max

Typical properties of the pure product			
Property	**Test Method**	**Unit**	**Value**
Molecular weight			76.094
Density		Kg/m^3	1036
Coefficient of cubic expansion		10-4/°C	6.95
Refractive index			1.4326
Pour point		ºC	-59.5
Boiling point		ºC	187.4
Flash point		ºC	103
Vapour pressure at 20°C		kPa	0.0067
Vapour pressure at 50 ºC		kPa	0.0893
Dynamic viscosity		mPa.s	55
Surface tension at 25ºC		mN/m	38
Specific heat		kJ/kg K	2.48
Latent heat of evaporation		kJ/kg	976.5
Thermal conductivity		W/m K	0.187
Heat of combustion at 25ºC		kJ/kg	23982
Electrical conductivity		µS/m	4.4
Dielectric constant			32.0

All typical physical properties are at 20°C unless stated otherwise.
* The above typical physical properties are published here as a guide to potential users of the product A sales specification is published separately

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Application

Monopropylene glycol finds its major application as a building block in unsaturated polyester resins. Other major applications are as a component in heat transfer fluids, de-icers for aircraft, grinding aids in cement industry and intermediates for chemical products like glycol based ethers, surfactants and plasticisers.

Test Methods

ASTM standards are published by the American Society for Testing and Materials at www.astm.org. USP standards are published by the U.S. Pharmacopoeia Inc. at www.usp.org.

Storage and Handling

MPG – Industrial is slightly hygroscopic and must be stored under conditions so that contamination with water and absorption of moisture are prevented.

The storage temperature of MPG – Industrial is not critical, in that there will be no hazardous conditions created by the storage of the product at any ambient temperature likely to be encountered. It should be noted however that for product quality reasons the storage temperature should not exceed 40 ºC. At below freezing temperatures the product viscosity might become too high for transfer from the storage container with the pumps available.

MPG – Industrial is stable product and is not expected to deteriorate significantly with time providing it is stored as indicated.

Hazard Identification

Low order of acute toxicity by the oral or precutaneous routes. Slightly irritating to the eyes and skin. This product is not in the 'flammable' range, but will burn.

Before handling the product refer to the Safety Data Sheet.

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