Monopropylene Glycol (KEMPG)

Industrial grade

KIMYAGARAN
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Technical Data Sheet

Propylene Glycol (KEMPG)

Chemical Name:

Propylene Glycol

Trade Name:

MPG/Industrial grade

Introduction:

Propylene Glycol (MPG), known also by the systematic name propane-1,2-diol, is an organic compound (a diol alcohol) that is usually a tasteless, odorless and colorless clear oily liquid. It is hygroscopic and miscible with water, acetone and chloroform.

General Applications:

The major end use for MPG is as a raw material in the manufacturing of unsaturated polyester resins. MPG is used as an active ingredient in antifreeze and as an anti-icing agent for car windshields, boats and airplane wings. MPG has a very low freezing point, and acts as a thickening agent, which helps the fluid adhere to surfaces. MPG is used as a solvent in paints, coatings, enamels and varnishes. MPG improves the properties of paints because its slow evaporation time lengthens the time the paint remains suitable for application.

Unsaturated Polyester Resins

The major end use for MPG is as a raw material in the manufacturing of unsaturated polyester resins. Markets for unsaturated polyester resins include:

- Residential and commercial construction
- Marine
- Transportation
- Consumer goods

Unsaturated polyester resins are reinforced with fiberglass to form tough, lightweight composite plastics that can be used in building and vehicle panels, pleasure boats, appliances, bathroom components, pipes and ducts.

Automotive/Aerospace

MPG is used as an active ingredient in antifreeze and as an anti-icing agent for car windshields, boats and airplane wings. MPG has a very low freezing point, and acts as a thickening agent, which helps the fluid adhere to surfaces. Ice gathers on top of the chemical layer, and then can be wiped off with little effort. When a water-glycol mixture freezes, it retains its flowability and does not create added pressure in pipes or vessels. This also makes MPG an ideal solution for burst protection in pipe and containment systems.

The benefits of using MPG for these applications include:

• Low freezing point

• Low mammalian toxicity

• Low flammability

• Excellent heat transfer properties

• A high boiling point, low vapor pressure

MPG is also an excellent choice for the production of polyglycols for use in hydraulic and brake systems to provide lubricity and anti-freezing protection, and to help reduce swelling of rubber parts.

Paints and coatings

MPG is used as a solvent in paints, coatings, enamels and varnishes. MPG improves the properties of paints because its slow evaporation time lengthens the time the paint remains suitable for application.

Packaging:

Packaging Type	Net weight	Gross weight	No. of drums per pallet	No. of pallets in a 20 FLC	Shelf life	IMCO Class
New Steel Drums	220 Kgs	238 Kgs	4	20	2 yrs	Non-Imco

Notice:

Customized packaging will be available according to customer's request.

Safety, Handling & Storage:

Full information on the safety, handling and storage of MPG/ Industrial grade is available in the corresponding Material Safety Data Sheet (MSDS).

Propylene Glycol

Trade Name: **MPG/Industrial grade**

Specification

No.	Test	Standard	Reference
1	Specific gravity @ 20˚C	1.0375-1.0390	ASTM D5164
3	Color [Pt-Co]	Max. 15.0	ASTM D5164
4	Acidity (as acetic acid) (wt. %)	Max. 0.005	ASTM D5164
5	Purity (on a dry basis) (wt. %)	Min. 99.0	ASTM D5164
6	Dipropylene Glycol (wt. %)	Max. 1.0	ASTM D5164
7	Distillation Range (760 mmHg) (˚C)	185-190	ASTM D5164
8	Water (wt. %)	Max. 0.2	ASTM D5164

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