



Polyethylene Glycol 400 (KEPEG 400)

Pharmaceutical grade



KIMYAGARAN
Emrooz
Chemical Industries Co.

Technical Data Sheet





Polyethylene Glycol 400 (KEPEG 400)

Chemical Name:

Polyethylene Glycol 400

Trade Name:

KEPEG 400/Pharmaceutical grade

Introduction:

Polyethylene glycols (PEGs) are condensation polymers of ethylene oxide and water with the general formula $H(OCH_2CH_2)_nOH$. They are the most commercially important type of polyether. The low molecular weight compounds up to 700 are colorless, odorless viscous liquids with a freezing point from $-10^{\circ}C$ (diethylene glycol), while polymerized compounds with higher molecular weight than 1,000 are wax like solids with melting point up to $67^{\circ}C$. While PEGs with different molecular weights find use in different applications and have different physical properties (e.g. viscosity) due to chain length effects, their chemical properties are nearly identical.

The numbers that are often included in the names of PEGs indicate their average molecular weights, e.g. a PEG with $n=9$ would have an average molecular weight of approximately 400 and would be labeled PEG 400. Most PEGs include molecules with a distribution of molecular weights, i.e. they are polydisperse.

PEGs are soluble in water and most organic solvents.

General Applications:

Polyethylene glycols are non-toxic, odorless, neutral, lubricating, nonvolatile and nonirritating and are used in a variety of pharmaceuticals and in medications as a solvent, dispersing agent, ointment and suppository bases, vehicle, and tablet excipient.



Packaging:

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

Notice:

We can produce other types of Pharmaceutical grades of polyethylene Glycols (PEGs), moreover customized packing will be available according to customer's request.

Safety, Handling & Storage:

Full information on the safety, handling and storage of pharmaceutical PEGs is available in the corresponding Material Safety Data Sheet ([MSDS](#)).



Polyethylene Glycol 400

Trade Name: **KEPEG 400/Pharmaceutical grade**

Specification

No.	Test	Standard	References
1	Color of Solution, 5g/50ml of Water	Colorless	USP41-NF36
2	Viscosity @ 98.9±0.3°C, Cst	6.8-8.0	USP41-NF36
3	pH, 5% Solution in Water	4.5-7.5	USP41-NF36
4	Residue on ignition, % wt	Max. 0.1	USP41-NF36
5	Assay (Average Molecular Weight), g/mol	380-420	USP41-NF36
6	Ethylene Glycol & Di-ethylene Glycol, % wt	Max. 0.25	USP41-NF36
7	Heavy metals, ppm	Max. 5	USP41-NF36
8	Ethylene Oxide & 1,4-Dioxane, ppm	Max. 10 (for each of them)	USP41-NF36

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