



Technical Data Sheet

ICC-Ethoxylated Products

Trade Name: PEG200

Chemical Name: POLY ETHYLENE GLYCOL 200

Grade: Chemical

CAS Name: poly ethylene (oxyethylene) glycol

Poly ethylene glycols (PEGs) are family of water-soluble linear polymers formed by the additional reaction of ethylene oxide (EO) with mono ethylene glycol (MEG) or diethylene glycol (DEG).

The generalized formula for polyethylene glycol is: $H(OCH_2CH_2)_nOH$, n: Average number of repeating ethylene oxide groups.

Application

PEG200 is used as a softener, antistatic agent, scouring agent, sizing agent, dyeing agent and releasing agent for foam, rubber, latex rubber. PEG200 is compatible with most organic solvents and has excellent water-solubility.

Storage and Handling

PEG200 is dispatched in polyethylene or corrugated steel, galvanized or carbon steel drums. PEG200 is stable for 2 years when stored in the original sealed containers in a cool and dry place. It is essential to ensure storage in a dry place because liquid PEGs are hygroscopic.

Each time the containers are opened, they should be resealed to make them airtight.

Liquid PEG should not be stored in internally lacquer containers because normal coatings are dissolved.

TEST	STANDARD TEST METHOD	RESULT
Appearance at 20°C	—	Clear liquid
Color at 25°C, APHA	ASTM D-1209	Max. 10
Average molecular weight, g/mol	Calculated	190-210
pH (5% in water)	ASTM D-1172	4.5-7.5
Density at 25°C, g/ml	ASTM D-1298	1.124±0.02
Hydroxyl value, mg KOH/g	ASTM D-4252	534-590
Water, percent	ASTM E-203	Max. 2.0
Viscosity at 25°C, cP	ASTM D-445	51±10

Safety

For many applications, particularly in pharmaceuticals, cosmetics and foodstuffs packaging, the physiological safety is important. PEG200 is non-toxic and physiologically safe so no special safety precautions need to be taken when handling them.

The vapor pressure of PEG200 is so low that inhalation of relevant amounts is impossible.

PEG200 has no toxic or irritant effect on the skin. Because of the low toxicity it was possible to establish an exact LD50 resulting from skin penetration.