

Technical Data Sheet

ICC-Propoxylated Products

Trade Name: PPG 1000

Chemical Name: PPG 1000 Polyether Polyol

PPG1000 is a linear polymer produced. The number 1000 indicate that the polymer is propylene oxide based and that the approximate average molecular weight is 1000. **PPG1000**, as this product is also known, is a clear, viscous liquid at room temperature. It has a low pour point and, unlike the higher molecular weight PPGs, is completely soluble in water at 25 °C. It loses its water solubility at higher temperatures. Like all polypropylene glycols, **PPG1000** is soluble in all proportions with any organic solids and liquids, the main exception being long chain aliphatic hydrocarbons. **PPG1000** possesses excellent lubricity and has a low vapor pressure. Under extreme heating conditions it does not form coke nor does it form a varnish. Decomposition products are low boiling products that are either lost as volatiles or soluble in the polypropylene glycol.

Application

As **PPG1000** is water-soluble it is used in areas not usually associated with the higher molecular weight PPGs. For example, it is used as a dust adhesive fluid, as solvent/coupler for inks and pesticide formulations. Besides the other outlets given above **PPG1000** is also used to make resins, fatty acid esters, lubricants, metal working fluids and as plasticizer.

Storage and Handling

PPG 1000 polyol is slightly hygroscopic and may absorb water. Containers should be kept tightly closed and protected from contamination with moisture and foreign materials, which can adversely affect product quality. This polyol can become quite viscous at low temperatures. For ease of handling, storage temperatures between 20°C (68°F) and 60°C (140°F) are recommended. **PPG 1000** is dispatched in polyethylene or corrugated steel,

galvanized or carbon steel drums.

Shelf life: PPG 1000 is stable for 2 years when stored in the original sealed containers in a cool and dry place.

TEST	STANDARD TEST METHOD	RESULTS
Appearance		Clear, viscous liquid
Hydroxyl value, mg KOH/g	ASTM D-4252	107.4-115.4
Density at 25°C, g/ml	ASTM D-1298	1.01
Viscosity at 25°C, cP	ASTM D-445	145±10
Water, percent	ASTM E-203	0.05
Cloud point, °C (10% in BDG 25%)	ASTM D-202	37±1
Acid Value (mg KOH/gr)	AOCS Te 1a- 64	1.0

Safety

Appropriate literature has been assembled which provides information concerning the health and safety precautions that must be observed when handling **PPG 1000** polyol. Before working with these products, you must read and become familiar with the available information on their hazards, proper use, and handling.

Health Effects

Inhalation: Remove victim from exposure to fresh air immediately, if not breathing, give artificial respiration; if breathing is difficult, give medical oxygen. Get medical aid immediately.

Ingestion: Rinse mouth with plenty of milk or water (only if victim is conscious and alert). Get medical aid immediately.

Skin Contact: If skin contact occurs, wash the affected area with plenty of water and a neutral soap for a minimum of 5 minutes.

Eye Contact: If eye contact occurs, wash with plenty of clean water or amphoteric eye solution for a minimum of 15 minutes, holding the eyes open, medical advice should be followed.