



VORANOL CP 450
Polyol

General Description

VORANOL™ CP 450 polyol is a glycerine propoxylated polyether triol with an average molecular weight of 450.

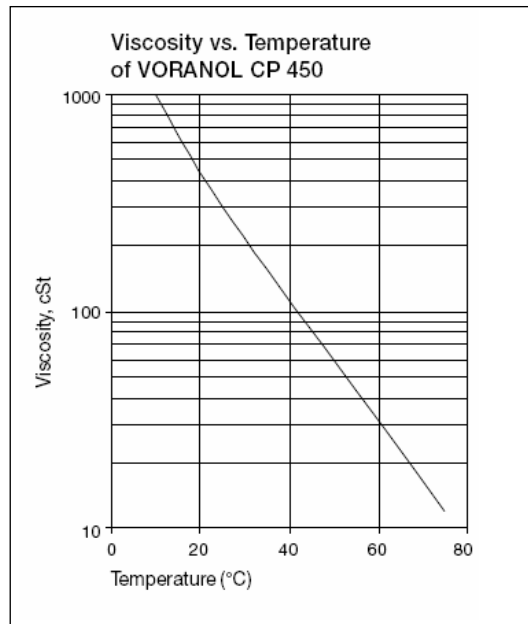
VORANOL CP 450 polyol, a low viscous polyol, is a special polyol used in polyol blends for rigid polyurethane foam applications also used in the manufacture of coatings, floorings, structural castings and adhesive. VORANOL CP 450 can also be used in blends with other VORANOL polyols to influence physical and mechanical properties of semi rigid and rigid urethanes.

Properties¹ of VORANOL CP 450

Typical ¹ Properties	Value	Test Method
Appearance / physical state	clear, viscous liquid	
Hydroxyl number, mg KOH/g	370 - 396	ASTM D4274
Water, max., %	0.060	ASTM E203
Acid number, max., mg KOH/g	0.050	DOWM 100387
Colour, max., APHA	30	ASTM D4890
Specific gravity, 25/25 °C	1.065	
pH (1 Water / 10 Methanol)	6.0 – 8.0	DOWM 101495
pH (6 Water / 10 Isopropanol), aim	7.5	AOD-AM-82-031
Viscosity at 25 °C, cSt	300 - 360	ASTM D445
Average molecular weight	450	
Potassium & Sodium, max., ppm	10.0	AOD-S
Flash point, °C	230	Pensky Martens closed cup
CAS # ¹	025791-96-2	

¹Typical properties, not to be construed as specifications.

Viscosity Curve of VORANOL CP 450



See "Handling and Storage" next page

Safety Considerations for VORANOL CP 450 polyol

Safety Data Sheet [SDS] for VORANOL™ CP 450 polyol is available from The Dow Chemical Company. SDS is provided to help customers satisfy their own handling, safety and disposal needs, and those that may be required by locally applicable health and safety regulations. SDS sheets are updated regularly. Therefore, please request and review the most current SDS before handling or using any product. Copies of the SDS are available on request through your nearest Dow Sales office.

Toxicity

Most VORANOL polyols generally present no significant hazard in use when simple precautions are followed. However, some VORANOL polyols might present some hazards and before working with these products it is necessary to understand the hazards involved. [See SDS for specific information.](#)

These polyols are commonly used in «urethane» systems that contain other more hazardous materials (e.g. isocyanates, amines). Anyone working with urethane systems must understand all the hazards involved in handling such systems and must establish and follow safe work procedures. Recommendations for handling, storage, and disposal of each formulation ingredients should be obtained from its supplier.

First Aid

Skin and Eyes

When working with VORANOL polyols, avoid contact of polyol with eyes or skin. Safety glasses are suggested for use with most polyols. However, some VORANOL polyols require that chemical workers' goggles be worn. See the product specific SDS, Section 8. Skin contaminated with polyols should be washed with soap and plenty of water. If polyol contacts eyes, flush with plenty of low-pressure flowing water. If irritation occurs from contact with polyols, get prompt medical attention.

Ingestion

If a polyol is swallowed, give large amounts of water to dilute, but never give fluids or induce vomiting if patient is unconscious or is having convulsions. Obtain prompt medical attention.

Inhalation

VORANOL polyols when present alone do not present a significant problem from inhalation. If any ill effects should occur, get the affected person to fresh air and obtain prompt medical attention.

Fire and explosion

VORANOL polyols are organic materials that will burn under the right conditions of heat and oxygen supply. Store and handle polyols away from open flame or high heat sources. Fires can be extinguished with water fog or other conventional means. Fire fighters should wear positive pressure, self-contained breathing apparatus.

While polyols have no known explosion limits, if heated to decomposition in a confined area, they may generate sufficient volatile gases to be an explosion hazard.

Polyols are stable under normal conditions. Materials to avoid are oxidizing compounds.

Hazardous polymerisation may occur with isocyanates.

Spills and Disposal The preferred way of disposal is to incinerate under controlled conditions in accordance with all local and national environmental laws and regulations.

Customer Notice Dow encourages its customers to review their applications of Dow products from the standpoint of human health and environmental quality. To help ensure that Dow products are not used in ways for which they were not intended or tested, Dow personnel are willing to assist in dealing with ecological and product safety considerations. Your Dow representative can arrange the proper contacts.

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