



VORANOL* 220-530

Polyol

VORANOL* 220-530 is a highly reactive amine initiated polyether polyol. An amber colored liquid, this polyol offers good elastomeric and reinforcing properties to polyurethane foams and two-component CASE systems. It also offers good compatibility with polybutadiene based polyols.

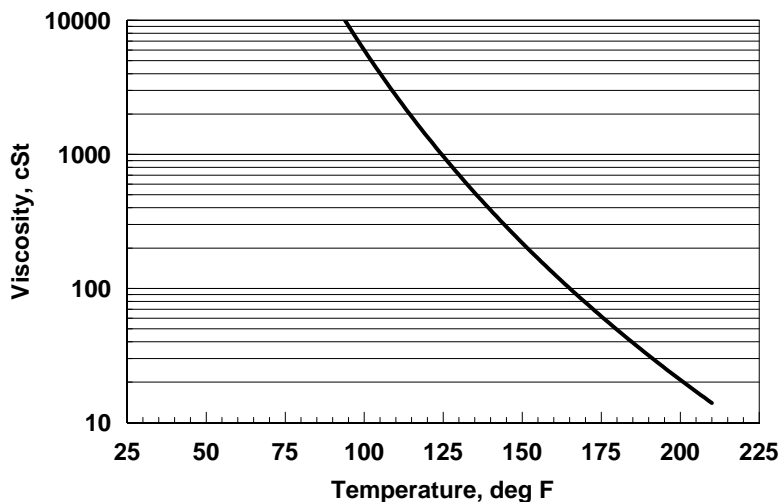
Other applications for VORANOL* 220-530 include use as an extender in elastomers and as an intermediate for organic synthesis.

Typical Properties¹

Hydroxyl Number 530
 Water, max. %..... 0.10
 APHA color, max..... 100
 Density, gm/cc 23°C..... 1.055
 Flash Point (PMCC) 325°F/163°C
 Refractive Index, 25°C 1.5520
 Vapor Pressure, mm Hg
 25°C < 0.001

CAS # 003077-13-2

Viscosity Vs Temperature¹



Viscosity, cSt			
32°F	77°F	100°F	210°F
solid	solid	6000	14

¹ Typical properties, not to be construed as specifications.

Safety Considerations

VORANOL* 220-530 polyol is a potentially hazardous material and requires care in handling. However, this polyol is most commonly used in urethane systems that contain other, more hazardous materials (e.g., isocyanates and amines). Before working with urethane systems, it is necessary to understand the hazards involved in handling all of the components and to establish and follow safe work procedures.

Material Safety Data Sheets, product literature and safe handling and storage information are available for the polyurethane components supplied by Dow. Recommendations for handling, storage and disposal of any ingredient not furnished by Dow should be acquired from the supplier.

Toxicity and First Aid

Skin and Eyes

VORANOL* 220-530 polyol may cause severe eye irritation with corneal injury which may result in impairment of vision and even blindness. Avoid contact of VORANOL* 220-530 polyol with skin and **do not get in eyes**. Chemical goggles and protective clothing are required for handling this polyol. In case of skin contact, wash with plenty of water. In case of eye contact, immediate and continuous irrigation with flowing water for at least 30 minutes is

imperative. Prompt medical consultation is essential.

Ingestion

Polyols are low to very low in acute oral toxicity. If a polyol is swallowed, give large amounts of water to dilute. Obtain 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 medical attention.

Storage

When received, VORANOL* 220-530 polyol may be stored as a solid in airtight containers in a cool, dry place. If the product is intended for polyurethane use, protect from moisture contamination.

To liquefy, heat to a minimum of 160°F (71°C). Keep overheating to a minimum to maintain product specifications. Once liquefied, store at 100-110°F (37-43°C).

Fire and Explosion

VORANOL* polyols also will burn under certain conditions and can explode if heated to decomposition in a confined area. VORANOL* polyols are Class IIIB Combustible Liquids under OSHA. Polyol fires can be

extinguished with water fog, carbon dioxide or dry chemicals. Polyol fires not involving isocyanate may be extinguished with alcohol foam. Personnel fighting isocyanate fires or polyol fires involving isocyanate should wear pressure demand, self-contained breathing apparatus and full protective clothing as protection against nitrogen dioxide fumes and isocyanate vapors.

Spills and Disposal

Waste polyol should be burned in an adequate incinerator. Landfill disposal of polyols is not recommended because of the chemical's water solubility. Waste disposal of either isocyanate or polyol should always be in accordance with federal, state and local 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.

For more information call: 800-441-4369

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