



Technical Data Sheet

VORANOL™ 220-530 Polyol

Description

An all-PO diol of 212 MW with true diol functionality.

VORANOL™ 220-530 Polyol is a highly reactive amine initiated polyether polyol.

Benefits

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.

Typical Properties

Properties	Nominal Value	Unit	Test Method ¹
Hydroxyl Number, a KOH	530.0	mg KOH/g	ASTM D4274
Viscosity (Kinematic) (38°C)	6000	cSt	ASTM D445
Water, Max.	0.100	wt%	ASTM D4672
Colour, Max. (APHA)	100		ASTM D4890
Specific Gravity (38°C)	1.00		ASTM D4669

1. ASTM: American Society for Testing and Materials.

Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

For other physical properties including, but not limited to: boiling and melting point, vapor pressure, flash point and thermal expansion, please see section 9 of the Material Safety Data Sheet (MSDS). For storage/shelf life information see section 7 of the MSDS and for CAS numbers see section 3.

Safety Considerations

Before working with Dow polyurethane materials it is necessary to understand the hazards involved in handling all of the components and to establish and follow safe work procedures. Safety Data Sheets (SDS), product literature, and safe handling and storage information are available for the polyurethane materials supplied by Dow. Recommendations for handling, storage and disposal of any ingredient not furnished by Dow should be acquired from the supplier.

Safety Considerations (Cont.)

Safety Data Sheets are available from The Dow Chemical Company (Dow) to help customers satisfy their own handling, safety and disposal needs, and those required by locally applicable health and safety regulations. SDS 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 Dow Customer Information Group (CIG) CUSTINFOGRP@dow.com or through the nearest Dow Sales office.

Safety Precautions

Most Dow Polyols generally present no significant hazard during use when simple precautions are followed. However, some polyols may present certain hazards.

All persons who work with these materials must know and follow proper safe handling procedures.

Handling

Avoid contact with eyes, skin, or clothing. Workers should wear appropriate eye protection. Safety glasses are considered a minimum requirement. If there is the possibility of exposure to the eyes, chemical workers' goggles must be worn.

When working with Dow polyols, avoid contact of polyol with eyes or skin. Safety glasses are suggested for use with most polyols. However, some Dow polyols require that chemical workers' goggles be worn.

Please review the SDS for the specific product and your country for this information.

Toxicity

Most Dow polyols generally present no significant hazard during use when simple precautions are followed. However, some polyols may present certain hazards. See SDS for specific information.

Fire and Explosion

Polyols are stable under normal conditions. Hazardous polymerization may occur with isocyanates. 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. 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. Fires can be extinguished with water, fog or other conventional means. Fire fighters should wear positive pressure, self-contained breathing apparatus.

Caution: Polyurethanes or polyisocyanurates produced from this product may present a fire risk in certain applications if exposed to fire and/or excessive heat, e.g. welding and cutting torches, in the presence of oxygen or air.

Spills and Disposal

Spills can be covered with a commercial absorbent or sand, shoveled into open, properly labeled containers and removed from the work area for decontamination.

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

First Aid Procedure

Inhalation

Alone, Dow polyols typically 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.

Eye Contact

Flush eyes with water for a least 15 minutes. Obtain prompt medical attention.

**First Aid
Procedure (Cont.)**

Skin Contact

Skin contaminated with polyols should be washed with soap and plenty of 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 medical attention.

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Applications
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- b. use in cardiac prosthetic devices regardless of the length of the time involved ("cardiac prosthetic devices" include, but are not limited to, pacemaker leads and devices, artificial hearts, heart valves, intra-aortic balloons and control systems, and ventricular bypass-assisted devices);
- c. use as a critical component in medical devices that support or sustain human life; or
- d. use specifically by pregnant women or in applications designed specifically to promote or interfere with human reproduction.

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