



## DATASHEET

**CARADOL MD440-01**

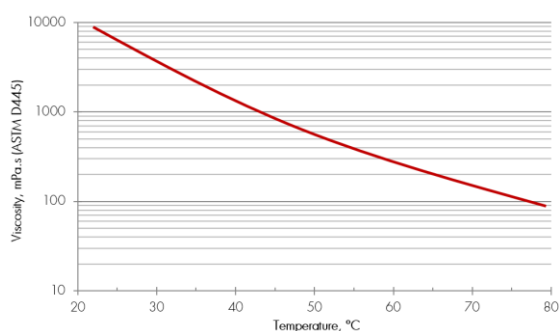
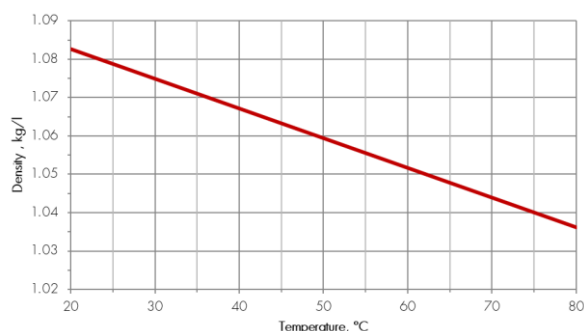
## URETHANE CHEMICALS FOR RIGID FOAM APPLICATIONS

U3440  
February 2021

CARADOL MD440-01 is a Sorbitol and Glycerine based Rigid polyether polyol with functionality of 4.9 and typical hydroxyl value of 440 mg KOH/g. Due to its high functionality and viscosity the polyol can be used in the base component of polyol blends together with other low viscosity polyols, such as triols, diols, and/or more reactive polyols in order to maintain an optimal balance in viscosity/functionality and reactivity.

**TYPICAL PROPERTIES**

PROPERTY	TEST METHOD	UNIT	VALUE
Appearance			clear
Colour			Pale - Yellow
Hydroxyl value	ASTM D4274D	mg KOH/g	440
Functionality			4.9
Density (20°C)	ASTM D4052	kg/l	1.08
Water content	ASTM D4672	%m/m	0.05
Dynamic Viscosity (25°C)	ASTM D445	mPa.s	6180
Flash point	ASTM D93	°C	>200

**VISCOSITY/TEMPERATURE CHARACTERISTICS****DENSITY/TEMPERATURE CHARACTERISTICS**

The above typical properties are published as a guide to potential users of the product. A sales specification is published separately.

# CARADOL MD440-01

## POLYETHER POLYOLS FOR CASE APPLICATIONS

### TEST METHODS

ASTM standards are published by the American Society for Testing and Materials at [www.astm.org](http://www.astm.org). SMS methods (Shell Methods Series) can be obtained through the local Shell company.

### STORAGE AND HANDLING

CARADOL MD440-01 is slightly hygroscopic and must be stored under conditions so that contamination with water and absorption of moisture are prevented. Contact with copper, copper alloys or zinc must be avoided.

The storage temperature of CARADOL MD440-01 is not critical, in that there will be no hazardous conditions created by the storage of the product at any ambient temperature likely to be encountered. It should be noted however that a normal storage temperature, ensuring optimum processing conditions when using the product, is between 20°C and 25°C and that storage at low temperatures may result in the product viscosity being too high for transfer from the storage container with the pumps available.

CARADOL MD440-01 is a stable product and its processing performance is not expected to deteriorate significantly with time providing it is stored as below. As good industrial practice however it is recommended that it is not stored for periods longer than 2 years.

### Bulk

**Tanks** should be of stainless steel or of mild steel, free of mill scale or rust and maintained in a rust free condition. When desired, the latter can be lined with an epoxide resin paint or zinc silicate paint approved for this service. Small tanks must be fitted with silica gel breathers, inspected and regenerated at regular intervals; large tanks (of volumes greater than 1000 m<sup>3</sup>) should be fitted for blanketing with dry nitrogen. Heating facilities may be necessary and where this is the case, care should be taken to ensure that heating coil skin temperatures do not exceed 100°C.

**Lines** should be of stainless steel or mild steel maintained in a rust free condition. Trace heating may be necessary in cold climates. Hoses should be of polypropylene, stainless steel or wire bound canvas.

### Drums

CARADOL MD440-01 should be stored in dry conditions away from direct sources of heat, preferably in the unopened original containers. Opened drums must be reclosed tightly immediately after drawing off material.

### HAZARD IDENTIFICATION

Low order of acute toxicity by the oral or percutaneous routes, neither irritating nor sensitising to the skin. Slightly irritating to the eyes. This product is not in the 'flammable' range, but will burn. Before handling the product refer to the Safety Data Sheet.

### PRODUCT CODE

U3440

### DISCLAIMER

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For further information please contact your local sales representative or visit

[www.caradol.com](http://www.caradol.com)

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