



## DEMTROL™ 4017

### Demulsifier Base

#### Description

DEMTROL™ 4017 Demulsifier Base is a propylene oxide/ethylene oxide (PO/EO) block copolymer initiated with specially combined alkyl amines that result in a polymer with an approximate average molecular weight of 4,500 daltons. This demulsifier base is ideal for developing demulsifier formulations for the quick and effective separation of water from water-in-oil emulsions. DEMTROL 4017 is mostly useful in applications involving high-salinity oils, such as the material found in pre-salt regions, and it has a wide API range. The unique surfactant characteristics of this product allow its association with other demulsifier bases offered by Dow. Preliminary tests have shown that this product ultimately composes the majority of the resulting demulsifying formulation, achieving a high performance rate. Since solvents are not used during the production process, its final active content is approximately 100 percent.

#### Features and Benefits

- Easily formulated with other Dow demulsifier bases
- Improved hazard profile as a result of the solvent-free and non-flammable properties compared to other leading solvent-containing, resin-based materials
- Efficient performance rate in separating out water found in water-in-oil emulsions
- Increased cost-effectiveness with the ability to store lower volumes than other solvent-based material, and greater flexibility to use the solvent of choice in the final formulation
- Efficient demulsification properties that allow for efficient emulsion-breaking, leading to the optimization of the water phase quality in formulations and a more simplified final product
- Optimal oil and water separation due to a unique combination of quick and effective separation of water from water-in-oil emulsions
- Increased petroleum extraction yield with minimized aqueous phase losses due to moisturizing properties that change the emulsification characteristics

#### Typical Physical Properties<sup>(1)</sup>

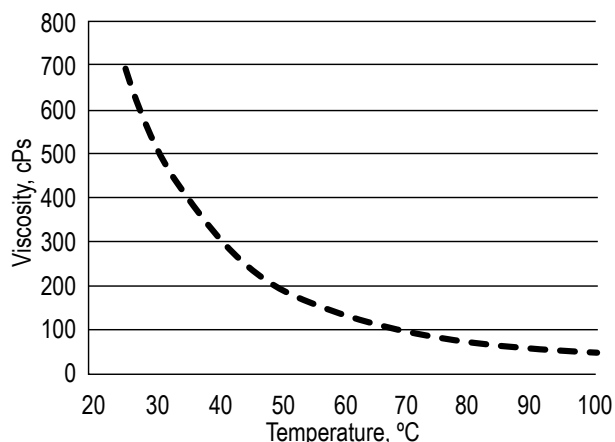
Property	Value
Appearance, Room Conditions <sup>(2)</sup>	Slightly yellow viscous liquid
RSN <sup>(3)</sup>	13
Solubility in Water, Room Conditions	Slightly
Hygroscopicity, Room Conditions	Low
Density, lb/gal, 77°F	8.52
Density, g/cm <sup>3</sup> , 25°C	1.02
Vapor Pressure @ 25°C, mm Hg	<1
Pour Point, °C	~ 15
Flash Point, °C	145
% Active	100

(1) Typical properties. Not to be construed as specifications.

(2) Room conditions are considered to be 25°C and 1 atm.

(3) The relative solubility number (RSN) was determined by titrating water in a solution containing 1 g of DEMTROL™ demulsifier and 30 ml toluene (2.6 vol%) and ethylene glycol methyl ether (97.4 vol%). RSN is reported as the volume of water needed to make a solution turbid or cloudy.

#### Viscosity versus Temperature DEMTROL™ 4017 Demulsifier



## Storage and Packaging

When stored in the original unopened containers, DENTROL™ 4017 Demulsifier Base has a usable life of 24 months from the date of production.

DEMTROL crude oil demulsifier bases are available in a variety of container sizes. Contact your local Dow sales representative for information about container sizes available in your area.

## Product Stewardship

When considering the use of any Dow products in a particular application, you should review the latest Material Safety Data Sheets from Dow and ensure that they are intended for safe use. For Material Safety Data Sheets and other product safety information, contact Dow. Before handling any other products mentioned in the text, you should obtain available product safety information and take necessary steps to ensure safety of use.

No chemical should be used as or in a food, drug, medical device or cosmetic, or in a product or process in which it may contact a food, drug, medical device or cosmetic until the user has determined the suitability and legality of the use. Since government regulations and use conditions are subject to change, it is the user's responsibility to determine that this information is appropriate and suitable under current, applicable laws and regulations.

Dow requests that the customer read, understand and comply with the information contained in this publication and the current Material Safety Data Sheet(s). The customer should furnish the information in this publication to its employees, contractors and customers, or any other users of the product(s), and request that they do the same.

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Note: This guide is designed as a general product overview. Please contact your local Dow representative for up-to-date, detailed technical information including registrations and use limitations and to discuss individual applications or requirements.

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