

Silbreak* Y-17580 Silicone Surfactant

Description

Y-17580 silicone surfactant is a 100% active silicone material. It is an excellent candidate to consider for foaming of water-based mixtures such as water-based drilling muds for underbalanced drilling reduction of surface tension of aqueous systems, such as fracturing fluids.

Key Features and Typical Benefits

- Powerful brine foamant
- Superior temperature stability compared to organic materials
- Good foam stability even in the presence of hydrocarbons
- Reduction of aqueous surface tension
- Excellent spreading and wetting of hydrophobic surfaces
- Low viscosity, easy to use

Potential Applications

- Underbalanced drilling with water based muds
- Reduction of surface tension of fracturing fluids

Typical Physical Properties

| Property | Typical Value |
|----------------------------------|-------------------------------------|
| Appearance | Pale yellow liquid |
| Active Content, % | 100 |
| Specific Gravity (25 °C / 77 °F) | 1.02 |
| Soluble in | Water, aromatics, alcohols, ketones |
| Viscosity at 25 °C / 77 °F (cPs) | 100 |
| Aqueous Surface Tension (0.1%) | 21 mN/m |
| Ionic Character | Non-Ionic |
| Freeze Point, °C/°F | <0 °C |
| Flash Point - ASTM D93, °C/°F | ca. 107 °C; 225 °F |

Typical physical properties are average data and should not be used as or to develop product specifications.

General Considerations for Use

Y-17580 silicone surfactant belongs to a special class of silicone surfactants capable of reducing aqueous surface tension to a very low level and at the same time capable of exceptional spreading and wetting. Aqueous solutions of Y-17580 silicone surfactant are stable at the pH range of 6.5 to 7.5. Outside this range, Y-17580 silicone surfactant may be subject to hydrolysis and change in resulting physical properties of the

solution. If the pH of the formulation is likely to be outside the range above, it is recommended that Y-17580 silicone surfactant be added shortly before use. This characteristic of Y-17580 silicone surfactant may be used to develop a transient effect of surface tension reduction and foaming.

Y-17580 silicone surfactant can be added to drilling fluids at concentrations up to 1%.

Patent Status

Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute the permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.

Product Safety, Handling and Storage

Customers should review the latest Safety Data Sheet (SDS) and label for product safety information, safe handling instructions, personal protective equipment if necessary, emergency service contact information, and any special storage conditions required for safety. Momentive Performance Materials (MPM) maintains an around-the-clock emergency service for its products. SDS are available at www.momentive.com or, upon request, from any MPM representative. For product storage and handling procedures to maintain the product quality within our stated specifications, please review Certificates of Analysis, which are available in the Order Center. Use of other materials in conjunction with MPM products (for example, primers) may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials.

Limitations

Customers must evaluate Momentive Performance Materials products and make their own determination as to fitness of use in their particular applications.

Contact Information

For product prices, availability, or order placement, contact our customer service at Momentive.com/CustomerService/

For literature and technical assistance, visit our website at: www.momentive.com

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