

## Silbreak\* 600

### Silbreak\* 600

#### Description

Silbreak 600 silicone demulsifier for Slop Oil Demulsifier and Foamant is an excellent candidate to consider to aid the separation of emulsions, particularly those related to slop oils, those found in mining operations or those produced during crude oil extraction. It is best used as a booster, in small concentrations, in typical organic demulsifier formulations.

Silbreak 600 silicone demulsifier can also be an effective foamer for water and polar solvent-based systems. Foams made from Silbreak 600 silicone demulsifier solutions are generally very stable and insensitive to oil contaminations.

Silbreak 600 silicone demulsifier is based on a low molecular weight polydimethylsiloxane modified with organic groups. Because of its molecular architecture, it typically shows remarkable surface activity in both oil and water based systems. Aqueous dispersions of Silbreak 600 silicone demulsifier can act as an effective wetting agent on solid surfaces.

#### Key Features and Benefits

- Can offer powerful demulsification effect with slop oils, particularly when combined with polyols and other organic demulsifiers
- Can form very stable foams in water and polar liquid based systems
- Effective wetting agent
- Effective at low dosage levels

#### Typical Physical Properties

Property	Unit	Value
Appearance	–	Straw colored
RSN <sup>(1)</sup>	–	20
Density at 25°C	g•cm <sup>-3</sup>	1.007
Viscosity at 25°C	cSt	20
Pour Point	°C	2

Flash Point Pensky-Martens Closed Cup ASTM D-93	°C	116
Solubility	–	Soluble in aromatic hydrocarbons, methanol isopropanol, acetone, higher alcohols; dispersible in water (steam condensate)

1) Established using toluene/dimethoxyethane solution as described in the reference J. Wu et al. Colloids and Surfaces A: 232 (2004) 229-237.

Typical data are average data and actual values may vary.

Typical data shall not be used as product specifications.

## Product Usage

### Demulsification

As with many Silbreak demulsifiers, Silbreak 600 silicone demulsifier is not intended to replace organic demulsifiers. Rather, it should be blended in with them at levels ranging from 2 to 25% to boost the effect or clean up the separated water. Synergistic blends are possible with glycols, particularly EO/PO block copolymers.

It is recommended that water based dispersions of Silbreak 600 silicone demulsifier should not be stored in conditions of extremes of pH as e.g., in solids wetting, acid jobs or in certain mining emulsions. In some cases, the transient nature of Silbreak 600 silicone demulsifier at extremes of pH may be advantageous as it will be eliminated from the system. In all cases, we recommend that studies be undertaken to ascertain the performance of the formulation over the anticipated duration of the application.

### Foam Stabilization

Silbreak 600 silicone demulsifier can be effective at greatly reducing the surface tension of water and can therefore form particularly stable foams. In a typical Ross Miles test (ASTM D1173-53) that records the foam height in millimetres of foam produced after the test solution is poured from a standard height, Silbreak 600 silicone demulsifier recorded:

0.1 wt% Silbreak 600 silicone demulsifier		1.0 wt% Silbreak 600 silicone demulsifier	
Initial	5 min	Initial	5 min
33	29	62	58

Solvents recommended for use with Silbreak 600 silicone demulsifier include aromatics, alcohols and water (steam condensate). Dilutions should be used within a few days to avoid product and performance degradation. Appropriate care should be taken when using flammable solvents.

### 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**

Silbreak 600 silicone demulsifier is best stored at temperatures between 5°C and 35°C to facilitate ease of handling, but storage at reasonably lower or higher temperatures should not typically affect its subsequent performance.

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](http://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/](http://Momentive.com/CustomerService/)

For literature and technical assistance, visit our website at: [www.momentive.com](http://www.momentive.com)

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