

## Silbreak™ 1636

Silbreak\* 1636

### Description

Silbreak 1636 silicone demulsifier is an excellent candidate to consider for use to efficiently break water-in-oil emulsions. It is based on a modified polysiloxane that contains no halogens. Silbreak 1636 silicone demulsifier can provide exceptional crude oil demulsification performance either on its own or in combination with non-silicone organic demulsifiers to which it may deliver a remarkable boost in the speed of separation.

Demulsifiers can be very selective depending on the crude that is to be demulsified. It is therefore recommended that bottle tests be run before finalizing a demulsification formulation.

### Key Features and Benefits

- Fast separation of water from crude oil, particularly during the initial phase of separation
- Low treatment rates when combined with non-silicone demulsifiers
- Potential overall cost reduction due to lower dosages
- Sharp and clear oil/brine interface; reduced sludge
- Clear water phase
- Very limited quantity of residual water rests in the separated crude
- Essentially free of phenolic derivatives
- Can be easily blended with organic demulsifiers

### Typical Physical Properties

|                                  |                |
|----------------------------------|----------------|
| Polarity (HLB)                   | 4              |
| RSN                              | 12             |
| Viscosity cSt, 20°C              | 170            |
| Density g/ml, 20°C               | 0.932          |
| Silicone Molecular Weight        | 7000-10000     |
| Solubility in Water (1%)         | Insoluble      |
| Preferred Solvent                | 2-ethylhexanol |
| Flash Point Tag Closed Cup, (°C) | 81             |

The information shown above on the polarity and molecular weight may be useful when blending with other materials is desired. The polarity is based on the best estimate of HLB as calculated from the solubility parameters (Barton, A.F.M. Handbook of Solubility Parameters and Other Cohesion Parameters, Boca Raton: CRC Press, 1983) based on the composition of Silbreak 1636 silicone demulsifier.

The RSN value was determined experimentally.

Typical data are average data and actual values may vary.

Typical data shall not be used as product specifications.

### Product Usage

Silbreak 1636 silicone demulsifier can be introduced into the stream of emulsified crude oil as a solution in an organic solvent. We recommend 2-ethylhexanol but other solvents may also be used. Silbreak 1636 silicone demulsifier is only dispersible in aromatic solvents forming a hazy solution in xylene at a 5% concentration.

Blending with commonly used organic demulsifiers can be an equally effective way of using Silbreak 1636 silicone demulsifier. In such cases, Silbreak 1636 silicone demulsifier can be used at levels as high as 50% of the final formulation, although it may provide benefits at levels as low as 10%. In some cases a compatibilizing solvent may be necessary.

### Patent Status

Technical subject matter in this publication is described and protected by one or more of the following U.S. Patents and their foreign counterpart patents and/or patent applications: U.S. Patent Nos. 6,001,140 and 6,221,815. Other U.S. and foreign

patents and/or patent applications not listed covering the subject matter may be relevant.

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 1636 silicone demulsifier should be stored between 0°C and 40°C to facilitate ease of handling; storage at lower or slightly higher temperatures (do not exceed 50°C) should not affect demulsification properties so long as the product has been stored in the original unopened package and is still within the stated shelf life.

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.

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