

Technical Data Sheet

Silbreak[™] 1840

Silbreak* 1840 Description

Silbreak 1840 silicone demulsifier is an excellent candidate to consider for use to efficiently break water-in-oil emulsions. It is based on a modified polysiloxane and contains no solvent. Silbreak 1840 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. In laboratory tests, Silbreak 1840 silicone demulsifier has exhibited these characteristics at temperatures as low as 20°C.

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) | 21 |
|----------------------------|-----------------------------------|
| RSN | 17.8 |
| Viscosity cSt, 20°C | 300 |
| Density g/ml, 20°C | 1.074 |
| Molecular Weight | 3000-5000 |
| Solubility in Water (1%) | Dispersible |
| Preferred Solvent | Xylene, aromatics, 2-ethylhexanol |
| Flash Point ASTM D93, (°C) | 121 |

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 1840 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.

Patent Status

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Product Safety, Handling and Storage

Silbreak 1840 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 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.

Processing Recommendations

Silbreak 1840 silicone demulsifier can be introduced into the stream of emulsified crude oil as a solution in an organic solvent. We recommend xylene or 2-ethylhexanol but other solvents may also be used..

Blending with commonly used organic demulsifiers can be an equally effective way of using Silbreak 1840 silicone demulsifier. In such cases, Silbreak 1840 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.

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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