

SAG* TP-317

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Description

Silicone Antifoam SAG TP-317 is a new generation of diesel fuel antifoams. It is based on a modified polydimethyl siloxane and contains no halogen.

Key Features and Benefits

- Easily compatible with most diesel fuel additive packages.
- Low Silicon content (9%)
- Low addition levels to diesel fuel.
- Durable effect. No significant loss in antifoam performance after four weeks ageing.
- Low water solubility, this makes Silicone Antifoam SAG TP-317 less prone to deactivation by the small amounts of water present in the diesel fuel.

Typical Physical Properties

| PROPERTY | UNIT | VALUE |
|-----------------------------------|---|---------------------------------|
| Appearance | - | Clear to slightly yellow liquid |
| Viscosity @ 25°C | mm ² ·s ⁻¹ | 480 |
| Freezing Point | °C (°F) | < -32 (-80) |
| Flash Point, PMCC | °C (°F) | >100 (230) |
| Refractive Index @ 22°C | - | 1.440 |
| Apparent specific gravity at 20°C | - | 1.03 |
| Volatility @ 50°C, 24 hours | % | 6.2 |
| Volatility @ 50°C, 5 days | % | 22.7 |
| Solubility | SAG TP-317 is soluble in alcohols and aromatic hydrocarbons. It is partially soluble in water | |

Table 1: Typical product data values determined on commercial material whose properties might vary within the specification limits. Typical product data values should not be used as specifications. Assistance and specifications are available from Momentive Performance Materials.

Potential Applications

A suggested starting level would be in the 8-15 ppm range addition to the diesel fuel. The actual concentration of SAG TP-317 required will depend on the exact composition of the diesel fuel and the degree of foam control required.

Silicone Antifoam SAG TP-317 can be added if needed to the diesel additive package by the use of an alcohol like 2-Ethyl Hexanol or Isodecanol and / or aromatic solvents. It is added to the diesel additive package at around 1-2% and the latter to the diesel fuel at a standard 200-500 ppm concentration level which gives an optimal concentration level of 8-10 ppm of Silicone Antifoam SAG TP-317 in the diesel fuel.

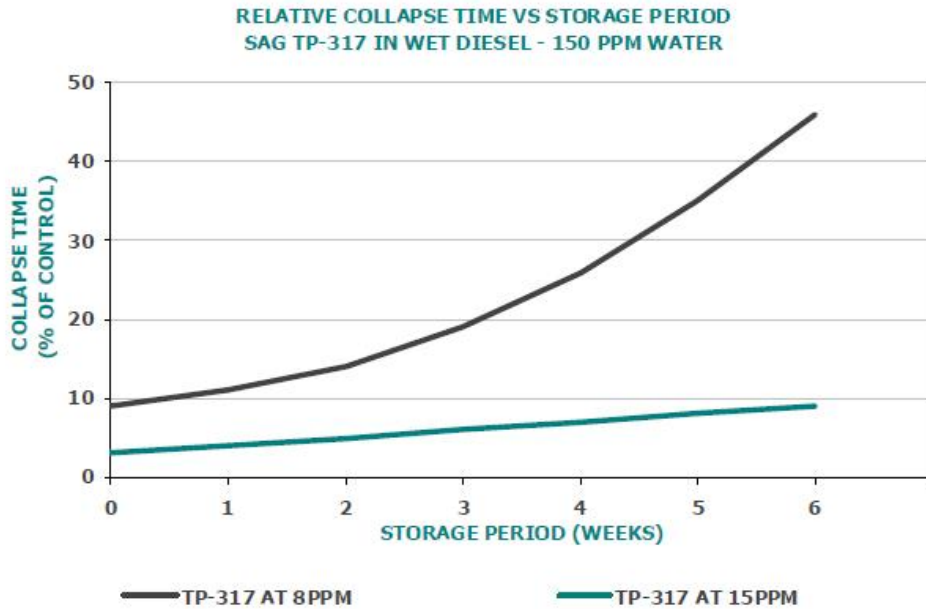
In a typical laboratory test varying levels of silicone antifoam SAG TP-317 were dissolved in diesel fuel at ambient temperature (with a predilution in isodecanol), 100 ml aliquots were shaken for 30 seconds in a 250 ml tin flask using a mechanical shaker and the time taken for a clear patch of surface to appear was recorded. The test was run at a fixed temperature of 19°C. To run the test under more critical foaming conditions, a diesel fuel containing 150 ppm water was used.

The SAG TP-317 was evaluated at 2 different concentrations (8 ppm and 15 ppm) and over a 6 week period of time to check SAG TP-317 for changes in antifoam performance with time.

The results are shown in Table 1:

| Relative Collaps Time (% of foam height of Control) | | |
|---|-------|--------|
| Weeks | 8 ppm | 16 ppm |
| 0 | 9% | 3% |
| 1 | 11% | 4% |
| 2 | 14% | 5% |
| 3 | 19% | 6% |
| 4 | 16% | 7% |
| 5 | 35% | 8% |
| 6 | 46% | 9% |

These are relative results. They have been compared against the foaming height of diesel fuel without any additive, which was set at a value of 100%. A suggested starting level would lie in the 10-20 ppm range. The actual concentration of SAG TP-317 required will depend on the exact composition of the diesel fuel and the degree of foam control required.



Packaging

SAG TP-317 Diesel Fuel Antifoam is available in 25kg pails, 210kg drums and 1000kg IBCs.

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

SAG TP-317 Diesel Fuel Antifoam is best stored at temperatures between 0°C and 40°C. Keep container closely sealed to prevent contamination with moisture or dirt.

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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