

## OptiClear™ Stability Improver Product Datasheet

**Overview** OptiClear™ Stability Improver is a fuel additive from Fuelcare, engineered to extend the storage life and maintain the integrity of liquid hydrocarbon fuels. OptiClear™ works at low treat rates to slow oxidation, reduce gum and sediment formation, and help protect against darkening, acidity build-up, and particulate generation during long-term storage. By interrupting the natural degradation pathways of diesel, gas oil, and other middle distillates, OptiClear™ keeps fuel cleaner and more stable, preserving its combustion quality and helping prevent costly filter blockages or injector fouling. OptiClear™ performs effectively across a wide temperature range and remains active even in fuels with variable water content.



**Fuels** OptiClear™ has been tested and found effective in a wide range of middle distillate hydrocarbon fuels, including Diesel fuels, Biodiesel blends (up to B50), Kerosene, Gas Oils, HVO, GTL variants and Marine Gas Oil.

**Industries** OptiClear™ is used in a wide range of industries where fuel needs to be stored for extended periods of time including marine, automotive, rail, agriculture, data centres, power generation and home heating applications. Note – the product is **not** approved for aviation.

**Directions for Use** Always use OptiClear™ in accordance with local regulatory requirements and O.E.M. guidelines, and do not exceed recommended dose levels.

The additive should be added in such a manner so as to allow good mixing and uniform across the fuel. Ideally, OptiClear™ should be dosed into a flowing fuel stream in the storage tank inlet – please contact Fuelcare for suitably approved dosing systems. Other methods of application, such as bulk dosing, will not affect the performance of OptiClear™ Tanks must be at least 10% full before dosing and preferably fill the tank after dosing. Do not dispense into empty fuel tanks.

Where possible, water and sludge should be removed from fuel tanks before dosing OptiClear™ and also after the retention period. If this is not feasible, filters should be checked more frequently for a short period, due to microbial slimes being killed off and dislodged. OptiClear™ is not surface active and therefore will not inhibit water separation.

At 300ppm a minimum retention time of 12 hours should be maintained but this may be reduced at the higher dosage rates. In general, the higher the concentration of biocide, the shorter the contact time required for a more complete kill but in all cases 24 hours retention is sufficient. The higher dosage rates in these circumstances will also help to improve filter fuel flow in the short term.

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**Dosage Rates** OptiClear™ is designed for treatment at 350ppm on a 3-monthly basis in conjunction with FuelClear™ M15 Fuel Biocide (at 150ppm). The combined dose rate is 500ppm.

**Rapid Treatment** OptiClear™ causes immediate inhibition of growth on coming into contact with a microorganism. Growth inhibition rapidly becomes irreversible and results in cell death. The time to achieve eradication varies according to the extent of contamination and the type of microbes present, but will typically be between 6 and 36 hours.

**Long Term Preservation** Fuel treated with OptiClear™ will remain protected from degradation over extended periods of time. Contact Fuelcare with specific information on fuel type and storage conditions for a full assessment.

**Complete System Protection** The miscibility characteristics of OptiClear™ ensures that it mixes well with middle distillate fuels for protection of the fuel as it is transferred through any distribution system. It is designed to be used in conjunction with any fuel filtration system or separator.

<b>Physical Properties</b>	<b>Appearance/Odour</b>	Yellow liquid with a mild odour
	<b>pH</b>	No data available
	<b>Specific Gravity</b>	0.9 kg/l at 25°C
	<b>Viscosity (@ 25°C)</b>	Kinematic (room temperature): 5 mm <sup>2</sup> /s (5 cSt)
	<b>Freezing Point</b>	No data available

**Safety and Support** Before using this product, consult the Material Safety Data Sheet (MSDS) for details on product hazards, recommended handling precautions and product storage.

**Personal Protection** Use chemical splash goggles and face shield (ANSI Z87.1 or approved equivalent). Eye protection worn must be compatible with respiratory protection system employed. Chemical-resistant gloves should be worn whenever this material is handled.

**Disposal** The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should always comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

**Spillage** Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Further information regarding spill procedures can be found in the MSDS.

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**Transport** ADR/RID, UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Solvent naphtha (petroleum), heavy arom., naphthalene), Class 9, Group III. Limited Quantity in 5 Litres/5kg.

**Contact** Fuelcare Laboratories are available to provide specialised technical support to all our customers. Our services available include:

- Identification of sources of contamination.
- Fuel Testing
- Design of treatment programs with OptiClear™.
- Monitoring of OptiClear™ levels in fuel samples.
- Advice and assistance on procedures to avoid the recurrence of microbial growth.

To contact Fuelcare:

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