For more information on how Innospec’s Fuel Specialties team can work with you, please contact our regional sales office.

Our international office network offers unrivalled product support and it has the resources to deliver the required fuel additive treatments to customers anywhere in the world.

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The purpose of an antioxidant additive is to extend the induction period and control gum formation by terminating the free radical chain reactions involved in hydrocarbon oxidation. The antioxidant selection and concentration levels depend on various factors, including storage conditions and petroleum fuel composition.

**Fuel Antioxidants**


**AO-29:** 2,6-di-tert-butyl-4-methylphenol. A light colored, finely divided solid, and readily soluble in oils. Sp. Gr. 1.05. USE: In turbine, transformer and hydraulic oils, waxes and greases to retard oxidation and in gasoline to reduce the formation of gum. CONC.: 2-20 ptb (6-57 mg/L). CONTAINER: 30-gal. (100 lb) fiber drums.

**AO-30:** 100% alkylated phenols, principally 2,4-dimethyl-6-tert-butylphenol (75% min.). An amber colored liquid, readily soluble in gasoline and oils. Sp. Gr. 0.95. USE: In jet fuels and gasolines to retard oxidation and in gasolines to reduce gum formation. CONC.: 1-10 ptb (3-29 mg/L). CONTAINER: 55-gal. (419 lb) steel drums.

**AO-31:** 100% alkylated phenols, principally 2,4-dimethyl-6-tert-butylphenol (75% min.). A straw colored liquid, readily soluble in gasoline and oils. Sp. Gr. 0.97. USE: In jet fuels and gasolines to retard oxidation, and in gasolines to reduce gum formation. CONC.: 1-10 ptb (3-29 mg/L). CONTAINER: 55-gal. (419 lb) steel drums.

**AO-32:** 100% alkylated phenols, principally 2,4-dimethyl-6-tert-butylphenol (55% min.) and 2,6-di-tert-butyl-4-methylphenol (15% min.). Sp. Gr. 0.96. USE: In jet fuels and gasolines to retard oxidation, and in gasolines to reduce gum formation. CONC.: 1-10 ptb (3-29 mg/L). CONTAINER: 55-gal. (419 lb) steel drums.

**AO-36:** 100% alkylated phenols, principally 2,6-di-tert-butyl-4-methylphenol (95% min.). A light colored, finely divided solid, and readily soluble in oils. Sp. Gr. 0.95. USE: In jet fuels and gasolines to retard oxidation, and in gasoline to reduce the formation of gum. CONC.: 2-10 ptb (6-43 mg/L). CONTAINERS: 55-gal. (408 lb) steel drums, T/T, Totes.

**AO-37:** 100% alkylated phenols, principally 2,6-di-tert-butyl-4-methylphenol. An amber liquid readily soluble in gasoline. Sp. Gr. 0.94. USE: In jet fuels and gasolines to retard oxidation and to reduce gum formation. Widerly approved for aviation fuels. CONC.: 1-10 ptb (3-29 mg/L). CONTAINER: 55-gal. (419 lb) steel drums, T/T, Totes. Also available as AO-37D (80% active) and AO-37/70 (70% active) in solvent.

**AO-29, AO-31 and AO-37** are acceptable for use in aviation gasoline and turbine fuels. Request further product information bulletins for additional details of additive properties and performance - Technical Memo 10,001 describes the use and approval status of Innospec Fuel Specialties additives for aviation fuels.

**Lubricity improvers** are non-metallic, phosphorus-free additives which provide boundary lubrication between moving fuel system components. Middle distillates typically contain trace materials, which have the ability to provide boundary lubrication between moving metallic parts in vehicle fuel systems. If, however, the fuels are processed to remove sulfur or reduce aromatic levels, a typical side effect is the removal of these species, with a resultant drop in fuel lubricity.

**Fuel Lubricity Improvers**

**DCI-4A:** A corrosion inhibitor lubricity additive for aviation and motor gasolines, jet fuels and other distillate fuels. Amber liquid. Sp. Gr. 0.94. USE: Widely approved and preferred for use in jet fuels. CONC.: 2-4 ptb (6-11 mg/L). CONTAINER: 55-gal. (419 lb) steel drums, T/T, Totes.

**OLI-9070.x**: The only fully synthetic, ester based, non-interacting, non-acidic, sulfur compliant lubricity additives for use in low sulfur and ultra low sulfur diesel fuels. Available in dilute blends for low temperature handling. CONTAINERS: 55-gal. (425 lb) steel drums, T/T, Totes.

**OLI-9101.x**: Combination package of OLI-9070.x lubricity improver with Stadis® 425 conductivity improver. Available in dilute blends for low temperature handling. Also available in various concentrations of Stadis® 425 conductivity improver. CONC.: 25-105 ptb (71-299 mg/L) based on properties desired. CONTAINERS: 55-gal. (419 lb) steel drums, T/T, Totes.


**OLI-9070.x**: The only fully synthetic, ester based, non-interacting, non-acidic, sulfur compliant lubricity additives for use in low sulfur and ultra low sulfur diesel fuels. Available in dilute blends for low temperature handling. CONTAINERS: 55-gal. (425 lb) steel drums, T/T, Totes.

**OLI-9101.x**: Combination package of OLI-9070.x lubricity improver with Stadis® 425 conductivity improver. Available in dilute blends for low temperature handling. Also available in various concentrations of Stadis® 425 conductivity improver. CONC.: 25-105 ptb (71-299 mg/L) based on properties desired. CONTAINERS: 55-gal. (419 lb) steel drums, T/T, Totes.
Multifunctional Gasoline Packages


Fuel Conductivity Improvers

Stadis® 425: Non-metallic, low viscosity, straw colored liquid conductivity improver. Sp. Gr. 0.85. USE: Improves conductivity to reduce electrostatic hazards during transfer of distillate fuels and solvents. CONC.: 0.1-1.0 ptb (0.3-3.0 mg/L). CONTAINERS: 35 lb pails, 55-gal (386 lb) steel drums, T/T, Totes.

Corrosion Inhibitors


DCI-6A: A corrosion inhibitor for motor gasoline and distillate fuels. Amber liquid. Sp. Gr. 0.944. CONC.: 1-3 ptb (3-9 mg/L). CONTAINERS: 55-gal (419 lb) steel drums, T/T. Also available as DCI-6A 80/20 (80% AIs) in solvent.

DCI-11: A corrosion inhibitor for gasolines containing oxygenates and for use in alcohols. Amber liquid. Sp. Gr. 0.942. CONC.: Preferably added to the alcohol to provide 2-3 ptb (6-9 mg/L) in the finished gasoline/oxygenate blend. Hydrocarbon soluble dye. Sp. Gr. 0.862. CONC.: 1-3 ptb (3-9 mg/L). CONTAINERS: 55-gal (400 lb) steel drums, T/T. Also available as DO-38 (50/50 AIs) in solvent.

Fuel Oil Additives


FOA-6: A new advanced liquid antioxidant and color stabilizer for bunker and diesel fuels. Sp. Gr. 0.83. CONC.: 1-12 ptb (3.4 mg/L). CONTAINERS: 55-gal (380 lb) steel drums, T/T.

FOA-318: An advanced multifunctional additive providing dispersancy, antioxidant properties, color stability, copper deactivation, and antihaze additive. Sp. Gr. 0.89. USE: Antioxidant, color stabilization, metal deactivation and reduction of organic sediment formation during storage. CONC.: 5-10 ptb (14-46 mg/L). CONTAINERS: 55-gal (410 lb) steel drums, T/T.

Cetane Number Improvers

CI-0010: Allyl nitrate. Sp. Gr. 0.967. USE: In diesel fuels to raise the cetane number. CONC.: 0.05-0.50 vol. %. CONTAINERS: 8/C, T/T, 55-gal (419 lb) steel drums, T/T.

CI-0020: An advanced cetane number improver. USE: Increase cetane number rating of diesel fuels. CI-0020 improves cetane quality of distillate stocks and imparts thermal stability to diesel fuels. Some fuels undergo thermal stability degradation when exposed to high concentrations of 2-BN (loading). CI-0020 contains a proprietary fuel stabilizer which restores thermal stability. CONC.: 0.05-0.50 vol. %.

CI-0060: Distearyl dimethyl phosphoric acid (50 wt %) in diesel fuel. Sp. Gr. 0.861. USE: In diesel fuels to raise the cetane number without increasing nitrogen content. CONC.: Up to 1.0 vol. %. CONTAINERS: 8/C, T/T, 55-gal (537 lb) steel drums, T/T.

De-icer

DIEGME: Sp. Gr. 1.023. USE: To inhibit icing in aviation fuel systems in both military (MIL-PRF-5624A 75% solution of N, N’-Disalicylidene-1, 2-propanediamine. USE: Metal deactivator for improving corrosion inhibition and metal deactivation. CONC.: 3-8 ptb (9-23 mg/L). CONTAINERS: 55-gal (410 lb) steel drums, T/T.

Metal Deactivators

DMD: A 75% solution of N,N-Dilasalicylone-1, 2-propanediamine. USE: Metal deactivator for improving storage and color stability of petroleum distillates containing dissolved copper. Particularly useful in jet fuel to improve JFTOT performance. CONC.: Varies widely with application. Also available as EMD-2 (50% AIs) in solvent. CONTAINERS: 55-gal (248 lb) and 55-gal (483 lb) steel drums, T/T, Totes.

Hydrocarbon Soluble Dyes and Markers

Hydrocarbon soluble dyes and markers facilitate fuel identification for both fiscal and security purposes.

Metal deactivators help stabilize fuels when naturally-occurring acidic compounds catalyze undesirable reactions with certain metals during distribution, storage and usage.

Cetane Improvers increase the ignition quality of distillate stocks and are considered a direct means of upgrading diesel fuels. These compounds readily decompose to generate free radicals which enhance the initiation of combustion.

Cetane Number Improvement

Cl-0010: Allyl nitrate. Sp. Gr. 0.967. USE: In diesel fuels to raise the cetane number. CONC.: 0.05-0.50 vol. %. CONTAINERS: 8/C, T/T, 55-gal (419 lb) steel drums, T/T.

Cl-0020: An advanced cetane number improver. USE: Increase cetane number rating of diesel fuels. CI-0020 improves cetane quality of distillate stocks and imparts thermal stability to diesel fuels. Some fuels undergo thermal stability degradation when exposed to high concentrations of 2-BN (loading). CI-0020 contains a proprietary fuel stabilizer which restores thermal stability. CONC.: 0.05-0.50 vol. %.

Cl-0060: Distearyl dimethyl phosphoric acid (50 wt %) in diesel fuel. Sp. Gr. 0.861. USE: In diesel fuels to raise the cetane number without increasing nitrogen content. CONC.: Up to 1.0 vol. %. CONTAINERS: 8/C, T/T, 55-gal (537 lb) steel drums, T/T.

Dyes and Markers

Hydrocarbon Soluble Dyes: USE: Impart distinctive colors to gasoline and other petroleum products.

Fuel Additives Product Summary
Changes in crude slates, fuel specifications, economics and refining requirements demand refiners take a new approach to handle wax related performance (pour point and cloud point) issues. Innospec Fuel Specialties can help refiners balance low temperature performance, quality and economics with next generation cold flow improvers.

**Cold Flow Improvers**

- **PPD-2000**, **5000**, **7000 Series**: A wide variety of EV and copolymers in various types of solvents. USE: Depress the pour point and low temperature handling properties of middle distillate fuels. CONC.: Fuel dependent, varies from 8 to 150 ptb. CONTAINERS: T/T, Totes. At the recommended treat rates the DMA-5XX series offers the following benefits:
  - Top tier performance
  - Complete compatibility with component materials of the engine and fuel system
  - Excellent corrosion protection
  - Intake Valve Deposits (IVD) keep clean
  - Port Fuel Injector (PFI) keep clean
  - Complete compatibility with component materials of the engine and fuel system
  - Top tier performance

- **CPD-1000 Series**: A variety of copolymers and terpolymers in various solvents. USE: Depresses the cloud point and low temperature handling properties of middle distillate fuels. CONC.: Fuel dependent, varies from 8 to 150 ptb. CONTAINERS: T/T, Totes. Cloud Point Depositors allow refiners flexibility in managing their jet/steam systems, thus maximizing their profits. CPDs can afford refiners the ability to upgrade valuable light-middle distillate components for higher value sales, while still meeting industry cloud point specifications.

- **DFI-600**, **DFI-700**: Next cold flow improver polymers designed to control the growth characteristics of the waxes found in middle distillate fuels. Benefits include improved low temperature pumpability, filterability and metering. CONTAINERS: R/R, T/T.

**Gasoline Deposit Control Additives**

The current trend toward fuel efficiency and emissions reductions requires fuel intake system deposit control to ensure a smooth running engine. Innospec Fuel Specialties DMA-SXX series product range of multifunctional gasoline detergents can help maintain a clean engine.

- **DFA-580**: Base product of this series developed to meet all of the fuel industry’s performance requirements. CONTAINERS: 55-gal. (408 lb) steel drums, T/T. Available in dilute blends for low temperature handling.

**Innospec’s Winter Operability Additives**

When faced with low temperatures and varying fuel qualities, diesel engine performance can be greatly improved by using high performance fuel additives. Innospec’s Winter Operability Additives not only improve cold flow and lubricity. They also utilize de-icer chemistry to prevent fuel filter and fuel line freezing.

- **1400**: Multifunctional middle distillate fuel additive for improved winter operability. It functions as a wax modifier to improve low temperature operability of diesel fuel. This product lowers the Cold Filter Plugging Point and Pour Point. It is also used as a wax modifier for extremely low temperature cold conditions. Disperses wax during extended engine shutdowns in cold climates. Aids against fuel system icing. Increases cetane by 1-3 numbers. Also contains a fully synthetic lubricity improver, a caustic resistant corrosion inhibitor and antioxidants to protect thermal and oxidative stability. Designed and reformulated specifically for Ultra Low Sulfur Diesel. CONTAINERS: 1/7, 275-gal. totes, 55-gal. steel drums, 5-gal. steel pails, 2.5-lit plastic containers.

- **2000**: A Low Flash winterized middle distillate fuel additive for improved winter operability. This product is designed for regions that require an additive with a low pour point for extreme storage conditions. 8500 HE C40/80 lowers the Cold Filter Plugging Point to prevent fuel gelling in low temperatures. Disperses wax during extended engine shutdowns in cold climates, aids against fuel system icing and contains a fully synthetic lubricity improver, a caustic resistant corrosion inhibitor, and antioxidants to protect thermal and oxidative stability. Designed and reformulated specifically for Ultra Low Sulfur Diesel. CONTAINERS: 1/7, 275-gal. totes, 55-gal. steel drums, 5-gal. steel pails, 2.5-gal plastic containers.

- **5000**: A multifunctional middle distillate fuel additive for improved winter operability. It functions as a wax modifier to improve low temperature operability of diesel fuel. Disperses wax during extended engine shutdowns in cold climates. Aids against fuel system icing. Also contains a fully synthetic lubricity improver, a caustic resistant corrosion inhibitor and antioxidants to protect thermal and oxidative stability. Designed and reformulated specifically for Ultra Low Sulfur Diesel. CONTAINERS: 1/7, 275-gal. totes, 55-gal. steel drums, 5-gal. steel pails, 2.5-gal plastic containers.

- **7000 Series**: A concentrated multifunctional middle distillate fuel additive for improved winter operability. This product lowers the Cold Filter Plugging Point and Pour Point. It also prevents fuel gelling in extreme low temperatures in the toughest to treat fuels. Disperses wax during extended engine shutdowns in cold climates, aids against fuel system icing and contains a fully synthetic lubricity improver, a caustic resistant corrosion inhibitor and antioxidants to protect thermal and oxidative stability. Designed and reformulated specifically for Ultra Low Sulfur Diesel. CONTAINERS: 1/7, 275-gal. totes, 55-gal. steel drums, 5-gal. steel pails, 2.5-gal plastic containers.

**Winter Operability Additives**

- **1400**: Multifunctional middle distillate fuel additive for improved winter operability. It functions as a wax modifier to improve low temperature operability of diesel fuel. This product lowers the Cold Filter Plugging Point and Pour Point. It is also used as a wax modifier for extremely low temperature cold conditions. Disperses wax during extended engine shutdowns in cold climates. Aids against fuel system icing. Increases cetane by 1-3 numbers. Also contains a fully synthetic lubricity improver, a caustic resistant corrosion inhibitor and antioxidants to protect thermal and oxidative stability. Designed and reformulated specifically for Ultra Low Sulfur Diesel. CONTAINERS: 1/7, 275-gal. totes, 55-gal. steel drums, 5-gal. steel pails, 2.5-gal plastic containers.

- **2000**: A Low Flash winterized middle distillate fuel additive for improved winter operability. This product is designed for regions that require an additive with a low pour point for extreme storage conditions. 8500 HE C40/80 lowers the Cold Filter Plugging Point to prevent fuel gelling in low temperatures. Disperses wax during extended engine shutdowns in cold climates, aids against fuel system icing and contains a fully synthetic lubricity improver, a caustic resistant corrosion inhibitor, and antioxidants to protect thermal and oxidative stability. Designed and reformulated specifically for Ultra Low Sulfur Diesel. CONTAINERS: 1/7, 275-gal. totes, 55-gal. steel drums, 5-gal. steel pails, 2.5-gal plastic containers.

- **5000**: A multifunctional middle distillate fuel additive for improved winter operability. It functions as a wax modifier to improve low temperature operability of diesel fuel. Disperses wax during extended engine shutdowns in cold climates, aids against fuel system icing. Also contains a fully synthetic lubricity improver, a caustic resistant corrosion inhibitor and antioxidants to protect thermal and oxidative stability. Designed and reformulated specifically for Ultra Low Sulfur Diesel. CONTAINERS: 1/7, 275-gal. totes, 55-gal. steel drums, 5-gal. steel pails, 2.5-gal plastic containers.
**All Year Multifunctional Additives**

2400: A multifunctional middle distillate fuel additive that improves and maintains fuel efficiency. Passes class 8 Fuel Filter Plugging test, reduces exhaust emissions, effectively removes water on a gradual basis.

 Increases cetane by 2-4 numbers. It also includes a fully synthetic lubricity improver, a caustic resistant corrosion inhibitor and antioxidants to protect thermal and oxidative stability. Designed and reformulated specifically for Ultra Low Sulfur Diesel. CONTAINERS: T/T, 275-gal. totes, 55-gal. steel drums, 5-gal. steel pails, 2.5-gal. plastic containers.

2700: A multifunctional middle distillate fuel additive that improves and maintains fuel efficiency. Passes class 8 Fuel Filter Plugging test, reduces exhaust emissions, effectively removes water on a gradual basis. Increases cetane by 2-4 numbers. It also includes a fully synthetic lubricity improver, a caustic resistant corrosion inhibitor and antioxidants to protect thermal and oxidative stability. Designed and reformulated specifically for Ultra Low Sulfur Diesel. CONTAINERS: T/T, 275-gal. totes, 55-gal. steel drums, 5-gal. steel pails, 2.5-gal. plastic containers.

7000: A concentrated multifunctional middle distillate fuel additive that improves and maintains fuel efficiency. Passes class 8 Fuel Filter Plugging test, reduces exhaust emissions, effectively removes water on a gradual basis. It also includes a fully synthetic lubricity improver, a caustic resistant corrosion inhibitor and antioxidants to protect thermal and oxidative stability. Designed specifically for fleet applications and reformulated specifically for Ultra Low Sulfur Diesel. CONTAINERS: T/T, 275-gal. totes, 55-gal. steel drums, 5-gal. steel pails, 2.5-gal. plastic containers, 1-gal. plastic containers.

7725: A multifunctional middle distillate fuel additive that improves and maintains fuel efficiency. Passes class 8 Fuel Filter Plugging test, reduces exhaust emissions, effectively removes water on a gradual basis. It also includes a fully synthetic lubricity improver, a caustic resistant corrosion inhibitor and antioxidants to protect thermal and oxidative stability. Designed and reformulated specifically for Ultra Low Sulfur Diesel. CONTAINERS: T/T, 275-gal. totes, 55-gal. steel drums, 5-gal. steel pails, 2.5-gal. plastic containers.

**Home Heating Oil Additives**

3000: A multifunctional home heating oil additive designed to enhance a wide spectrum of performance properties. This product cleans the fuel system by dispersing and removing sludge allowing it to pass harmlessly through fuel screens and filters. 3000 also clears burner nozzles, protects metallic components and prevents catalytic degradation induced by free metals including copper. It reduces opportunity for microbial growth and water related corrosion and contains antioxidants to protect thermal and oxidative stability. 

This product also contains defoamers for quicker fuel tank filling. CONTAINERS: 1/7, 275-gal. totes, 55-gal. steel drums, 5-gal. steel pails, 2.5-gal. plastic containers.

3100: A multifunctional home heating oil additive designed to enhance a wide spectrum of performance properties. More specifically this product lowers the Pour Point and Cold Filter Plugging Point of the fuel. It also dispenses wax to prevent gelling in low temperatures. This product cleans the fuel system by dispersing and removing sludge allowing it to pass harmlessly through fuel screens and filters. 3100 also clears burner nozzles, protects metallic components and prevents catalytic degradation induced by free metals including copper. It reduces opportunity for microbial growth and water related corrosion and contains antioxidants to protect thermal and oxidative stability. 

This product also contains defoamers for quicker fuel tank filling. CONTAINERS: 1/7, 275-gal. totes, 55-gal. steel drums, 5-gal. steel pails, 2.5-gal. plastic containers.

**Packaged Good Products**

**ECOHTEAR:** A multifunctional home heating fuel oil additive designed to enhance a wide spectrum of performance properties. More specifically this product lowers the Pour Point and Cold Filter Plugging Point of the fuel. It also dispenses wax to prevent gelling in low temperatures. This product cleans the fuel system by dispersing and removing sludge allowing it to pass harmlessly through fuel screens and filters. ECOHTEAR also cleans burner nozzles, protects metallic components and prevents catalytic degradation induced by free metals including copper. It reduces opportunity for microbial growth and water related corrosion and contains antioxidants to protect thermal and oxidative stability. This product also contains defoamers for quicker fuel tank filling. CONTAINER: 32 oz. bottle.

**ECOCLEAN:** A multifunctional middle distillate fuel additive designed specifically for light duty applications. It functions as a product that improves and maintains fuel efficiency. Passes class 8 Fuel Filter Plugging test, reduces exhaust emissions, effectively removes water on a gradual basis. Increases cetane by 2-4 numbers. It also includes a fully synthetic lubricity improver, a caustic resistant corrosion inhibitor and antioxidants to protect thermal and oxidative stability. Designed and reformulated specifically for Ultra Low Sulfur Diesel. CONTAINER: 32 oz. bottle.

**AQUACLear:** A multifunctional middle distillate fuel additive designed specifically for marine applications. It functions as a product that improves and maintains fuel efficiency. Passes class 8 Fuel Filter Plugging test, reduces exhaust emissions, effectively removes water on a gradual basis. Increases cetane by 2-4 numbers. It also includes a fully synthetic lubricity improver, a caustic resistant corrosion inhibitor and antioxidants to protect thermal and oxidative stability. Designed and reformulated specifically for Ultra Low Sulfur Diesel. CONTAINER: 32 oz. bottle.

**WINTERFLOW:** A multifunctional middle distillate fuel additive for improved winter operability. This product lowers Cold Flow Filter Plugging Point to prevent fuel gelling in extreme low temperatures. WINTERFLOW also contains wax modifiers, aids against fuel system icing and contains inhibitors to protect thermal and oxidative stability. Designed for fleet applications and reformulated specifically for Ultra Low Sulfur Diesel. CONTAINER: 32 oz. bottle.

**EXTREME WINTERFLOW:** A multifunctional middle distillate fuel additive for improved winter operability. This product lowers Cold Flow Filter Plugging Point to prevent fuel gelling in extreme low temperatures. Extreme Winterflow also contains wax modifiers, aids against fuel system icing and contains inhibitors to protect thermal and oxidative stability. Designed for fleet applications and reformulated specifically for Ultra Low Sulfur Diesel. CONTAINER: 16 oz. bottle.

**RED ALERT:** A winterized middle distillate fuel additive for use in emergency situations when fuel has gelled, or anticipated extreme circumstances that are beyond normal winter conditions. The anti-gel and die-cast combination dissolves gelled fuel that has already accumulated throughout the fuel system. This product is intended for emergency use only and is not recommended for continuous use. This product has a low flash point. See MSDS for further precautions. CONTAINER: 32 oz. bottle.

**DIESEL SHIELD:** A middle distillate fuel additive designed to impart lubricity to all middle distillate fuels. This patented chemistry has been developed to meet rigorous requirements of today’s highly desulfurized diesel fuels. It is a fully synthetic chemistry that will not interact with lubricants, other fuel additives or additives (e.g. addition of used lubricants). CONTAINER: 16 oz. bottle.

**DRITEX:** A middle distillate fuel additive designed to reduce water contamination in fuel storage tanks; specifically to inhibit microbial growth, as well as to act as a water "anti-freeze" during severely cold weather. CONTAINER: 32 oz. bottle.

**6000:** Antibacterial and antifungal agent for preserving middle distillate fuels. 60000 parts per million between the fuel and water phase providing protection in the fuel phase, the water phase, and the fuel/water interface. CONTAINER: 1-gal. container.
**Performance Specialties**

**LEGAL DIESEL™ Fuel Additives**

Innospec Fuel Specialties LLC was the first company to launch an entire ULSD product line that contains <15 ppm sulfur. Our LEGAL DIESEL™ Fuel Additives are all certified using proper Product Transfer Documents (PTDs). The PTDs clearly state:

> *NO OILS (5910) (1)*:
>  - This diesel fuel additive complies with the federal low sulfur content requirements for use in diesel motor vehicles and nonroad engines.
>  - This is a LEGAL DIESEL™ Fuel Additive Product.

**Marine Specialties**

**Octamar™ BT-8**: Octamar™ BT-8 is an asphaltene dispersant-stabilizer that keeps the fuel homogenized and the fuel system clean. The dispersant-stabilizer prevents fuel from stratification and the asphaltenes from agglomerating. This will greatly reduce sludge formation in fuel tanks and helps to keep separators, filters, fuel heaters, viscometers and injector (burner) tips clean, resulting in less maintenance and downtime. CONTAINER: 53-gal. steel drums (410 lbs).

**Octamar™ BT-8 PLUS**: Octamar™ BT-8 PLUS is an asphaltene dispersant-stabilizer uniquely combined with a combustion catalyst that keeps the fuel system clean and improves the combustion of fuel. It reduces sludge formation in fuel tanks and helps to keep separators, filters, fuel heaters, viscometers and injector (burner) tips clean, resulting in less maintenance and downtime. CONTAINER: 53-gal. steel drums (445 lbs).

**Octamar™ F**: Octamar™ F is a highly concentrated combustion improving agent to optimize the combustion for marine fuel oils. A higher burn-out of carbon and hydrocarbon will reduce the build-up of deposits, reduces maintenance and increase the time between overhauls. The risk of T/C breakdown and boiler fires is significantly reduced. CONTAINER: 54kg pails (119 lbs).

**Octamar™ MP-3 PLUS**: Octamar™ MP-3 PLUS is a concentrated combustion catalyst specially formulated to improve combustion of fuels with high C/H ratios which are slow burning fuels. Faster and more complete combustion will reduce unburned carbon deposits, maintaining the cleanliness of engines and boilers. Octamar™ MP-3 PLUS is particularly valuable on vessels that are having smoke problems. CONTAINER: 53-gal. steel drums (494 lbs).

**Octamar™ MP-4**: Octamar™ MP-4 is an ash inhibitor and combustion catalyst, is a highly concentrated organic combustion improver formulated to resolve high solid fuel issues. Octamar™ MP-4 maintains exhaust valves, turbocharger and super-heater tubes free from ash and unburned carbon. Octamar™ MP-4 is soluble in all grades of residual fuel and is intended for use in diesel engines and boilers. CONTAINER: 53-gal. steel drums (450 lbs).

**Octamar™ EB-1**: is a concentrated, oil based slip oil emulsion breaker formulated to resolve high solid and water content slip oil emulsions.

**Octamar™ SEA-L-SAVER**: Octamar™ SEA-L-SAVER is a premium lubricant that blends with all petroleum based oils and fluids, improving their efficiency and extending their operating life. It extends the life of seals in stern tubes, bow thrusters and hydraulic systems and will stop, or substantially reduce, oil leaks from lubricating and hydraulic systems. CONTAINER: 55-gal. steel drums (417 lbs).

**Industrial Detergent**

**Separ 8**: is a fast breaking solvent emulsion containing petroleum solvents and surfactants. CONTAINERS: 5-gal. pails, 55-gal. steel drums.

**Multi Functional Marine Diesel**

**Octamar™ MMD Series**: Octamar™ MMD series additives are dispersant-stabilizers uniquely combined with a combustion catalyst that keeps the fuel system clean and improves the combustion of fuel. It improves cetane number, provides injector detergency, lubricity, corrosion inhibition, and fuel stabilization. It removes and prevents deposits in the fuel system which can deteriorate fuel economy and emissions. Designed for handling at low temperatures. CONTAINERS: 5-gal. pails, 55-gal. drums, T/T.

**Octamar™ 260OC MMD**: Octamar™ 260OC MMD, Octamar™ 2650C MMD, Octamar™ 2700C MMD