

## DESCRIPTION

AMERGY 222 PLUS is a multifunctional fuel conditioner with added detergency that prevents the agglomeration of asphaltenes and enhances fuel injection/atomization performance. AMERGY 222 PLUS contains powerful polymeric dispersants, non-chlorinated solvents, and stabilizers and has been formulated to overcome the numerous difficulties faced in the storage, handling, and combustion of residual fuels and other blended fuels containing residual components intended for use in boilers and diesel engines.

## BACKGROUND

Asphaltene are complex hydrocarbons that can agglomerate and settle out in a process called flocculation, resulting in hard, sticky deposits. Blending of aromatic fuel containing asphaltene with paraffinic fuel has been known to lead to poor compatibility and subsequent stability challenges. In unstable fuel blends, asphaltene will flocculate and drop out of suspension, which can cause sludge formation, filter blockage, and other related operational problems. Whereas in a stable fuel, asphaltene would normally be held in suspension by the bulk phase of the fuel.

To help maintain asphaltene in suspension, the use of AMERGY 222 PLUS can improve fuel stability as well as the compatibility between two or more fuels. By improving a fuel's inherent stability, the tolerance of blending a treated residual fuel with distillate fuel is increased. The increased blending tolerance in turn provides greater security during

the commingling of dissimilar fuel types as well as during storage of any resultant fuel blend.

Fuel deposits found in injector/burner assemblies can disrupt proper fuel atomization and the fuel spray pattern, which could lead to increased ignition delay in diesel engines and poorer combustion in boilers. Poor combustion can result in increased carbonaceous deposits and emissions and in reduced engine efficiency.

AMERGY 222 PLUS can inhibit the formation of and/or reduce fuel tank sludge and minimize the deposition of sludge in fuel centrifuges and fuel filters, and keep fuel lines clean and free of asphaltic deposits. Furthermore, detergents in AMERGY 222 PLUS can also remove and control injector deposits for more efficient combustion which can further reduce the formation of carbonaceous deposits and emissions and increase overall fuel efficiency with better fuel energy conversion.

As these benefits are obtained, cost savings are realized as less labor and attention would be needed in maintaining fuel tanks, cleaning equipment, injector/burner assemblies, and exhaust systems including diesel turbochargers and waste heat boilers. When used regularly, the likelihood of encountering problems attributed to accumulated fuel sludge and deposits during severe weather are also eliminated.

## APPLICATION

As a fuel conditioner, AMERGY 222 PLUS helps counteract the burden placed on the fuel storage and cleaning systems from water contamination and excessive sludge, which can

## FEATURES

- Effective blend of non-chlorinated solvents, stabilizers, polymeric dispersants, and detergents
- Increases tolerance of blending residual fuel with distillate fuel
- Ability to maintain fuel as a homogeneous mixture
- Ability to recover fuel sludge as usable fuel
- Ability to inhibit sludge formation to keep separators, filters, and fuel lines clean
- Ability to remove and control injector deposits
- Does not contain halogens and phosphorus
- Compatible with commonly used engine and fuel system materials
- Completely soluble in fuel

## BENEFITS

- Improves stability and compatibility associated with agglomeration of asphaltene
- Provides greater security during the commingling of dissimilar fuel types as well as during storage of any resultant fuel blend
- Ensures stability of fuel in extended storage
- Increases overall fuel efficiency with better fuel energy conversion
- Reduces tank cleaning costs and optimizes purifier sludge discharge and solids removal
- Achieves more efficient combustion and reduces the formation of carbonaceous deposits and emissions
- Does not require elaborate dosing equipment
- Fuel solubility prevents additive removal during centrifuge operation



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contain a combination of large organic fuel particles and solid inorganic deposits. By dispersing any moisture and organic sludge present, AMERGY 222 PLUS can increase the utilization of available heat units by homogenizing the fuel portion of the unrecoverable sludge, which would otherwise be removed via sedimentation during settling and centrifuging.

AMERGY 222 PLUS may be used to treat unstable or poorly blended residual fuels and improve compatibility during fuel-switchover with all low-sulfur fuel oils. AMERGY 222 PLUS has also been proven to improve overall fuel efficiency by removing carbon deposits from injection equipment and to restore injector cleanliness and unimpeded fuel flow.

AMERGY 222 PLUS can be added to the fuel tanks by directly adding it to all nominated tanks prior to fuel delivery. This ensures that the additive is properly mixed and dispersed throughout the fuel (e.g., via fuel tank sounding tubes/vents).

AMERGY 222 PLUS dosage rate will vary depending on the overall quality of fuel and the desired level of performance and system response.

When used as a stand-alone fuel stabilizer, the recommended AMERGY 222 PLUS dosage rates are as follows:

RESERVE STABILITY NUMBER (RSN)	STABILITY COMPATIBILITY SPOT NUMBER	AMERGY 222 PLUS DOSAGE RATE
< 3	1	1:25,000
3 - 5	2	1:20,000
6 - 8	3	1:15,000
9 - 11	4	1:10,000
> 11	5	1:7,500

For combustion improvements, the recommended AMERGY 222 PLUS dosage rate is as follows:

1. To achieve the most economic treat rate and performance, AMERGY 222 PLUS fuel conditioner should be dosed at 1/8000 (1 liter for 8 tons) of fuel.
2. To achieve standard performance and system response, AMERGY 222 PLUS fuel conditioner should be dosed at 1/5000 (1 liter for 5 tons) of fuel.
3. To achieve premium performance and best system response, AMERGY 222 PLUS fuel conditioner should be dosed at 1/2500 (2 liters for 5 tons) of fuel. Use this treat rate initially to remove built-up injector/atomizer deposits.

It is recommended that fuel deliveries are representatively sampled and analyzed to monitor overall fuel quality and to determine levels of contamination. Consult your local Drew Marine representative for further discussion on fuel samplers, fuel analysis services and onboard fuel testing.

### TYPICAL PHYSICAL PROPERTIES

Appearance: Clear  
 Specific Gravity @ 15.6°C: 0.95  
 Flash Point (PMCC): 62°C min  
 Pour Point: ≤-21°C

### PACKAGING

AMERGY 222 PLUS is available in 25-liter containers (PCN 1105403).

### IMPORTANT INFORMATION

Drew Marine maintains Safety Data Sheets on all of its products. Safety Data Sheets contain health and safety information for your development of appropriate product handling procedures to protect your employees.

Our Safety Data Sheets should be read and understood by all of your supervisory personnel and employees before using Drew Marine products.



# Drew Marine®

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