



## FUELFLOW PPR™

### DESCRIPTION

**FUELFLOW PPR** (Pour Point Reducer) is a highly concentrated fuel oil additive specifically designed to reduce/depress the Pour Point (the temperature at which a fuel becomes solid) and prevent the formation of wax structures. In the case of marine distillate fuels, there seems a notable move toward fuels with higher wax contents, and this leads to worsening cold temperature operability.

As more ships sailing through polar waters and as new hybrid and ultra low sulfur distillate fuels are becoming available in the market, there is an increased risk of wax formation which can make fuel unpumpable.

As the temperature in the fuel decreases, the molecules of paraffin tend to come together, forming large structures which will degrade the flow characteristics of the fuel.

Modification of the crystallization of the wax is necessary to maintain the fuel at a liquid condition and avoid solidification in extreme conditions.

**FUELFLOW PPR** is suitable for all distillate fuels and offers no paraffin crystallization at very low temperatures/arctic waters. When using **FUELFLOW PPR** the fuel remains liquid and easy to handle/pump.

**FUELFLOW PPR** has been tested by independent lab, and has demonstrated to reduce pour point and cold filter plugging point (CFPP), by an average of 21°C and 11°C respectively.

### ADVANTAGES AND CHARACTERISTICS

- ◆ Pour point reducer/depressant
- ◆ Prevents the formation of wax structures
- ◆ Suitable for all distillate fuels
- ◆ No paraffin crystallization at very low temperatures/arctic waters
- ◆ Reduces the risk of fuel waxing and solidification
- ◆ Fuel remains liquid and easy to handle/pump
- ◆ Dose into the fuel tank prior to feeding at 1ltr/ tone of fuel
- ◆ Cost effective due to the low dosage needed.
- ◆ Easy to handle and use, as it is available in 25L pails.

### PHYSICAL PROPERTIES

**FUELFLOW PPR** is an organic-based pour point reducer/depressant that prevents the formation of wax structures and is suitable for all distillate fuels.

- Appearance/Color** : Colorless liquid
- Specific gravity** : 0.88 - 0.90 gr/cm<sup>3</sup> at 20°C
- Flash Point** : 64°C
- Odor** : Aromatic Solvent Odor

### PACKAGING

- Order Number: 562515 (25 lt)
- Container: Steel drum

### APPLICATION AND USE

#### A. Dosing Procedure

The fuel must be above its cloud point prior to treating with **FUELFLOW PPR**.

- ◆ Cloud point (CP) is the temperature below which wax in fuel form a cloudy appearance.
- ◆ Pour Point (PP) is the lowest temperature at which fuel continues to flow without losing its flow characteristics.
- ◆ Cold filter plugging point (CFPP) is the lowest temperature, expressed in degrees Celsius (°C), at which a given volume of fuel still passes through a standardized filtration device in a specified time.
- ◆ Cloud Point > CFPP Point > Pour Point
- ◆ CFPP is generally around 3°C below the Cloud Point.

The recommended dosage of **FUELFLOW PPR** is 1 liter to 1 tonne of fuel oil. In case the results are not the desired ones, then dosage can be increased to 1 liter of **FUELFLOW PPR** for 0.5 tonnes of fuel oil.

#### B. Feeding Procedure

**FUELFLOW PPR** should be dosed directly into the bunker tanks prior to filling.



**! SAFETY AND HANDLING**

<b>HANDLING</b>	Handle with care. Store in a dry, cool and well ventilated environment.
<b>SAFETY</b>	IMMEDIATE ACTIONS
<b>Eye Contact</b>	Avoid Eye contact. Otherwise, flush with plenty of water for a few minutes. Seek medical attention.
<b>Skin Contact</b>	Avoid Skin contact. Otherwise, wash contaminated area thoroughly with water. Seek medical attention.
<b>Inhalation</b>	Avoid inhalation of vapors. Otherwise, seek fresh air source at once. Seek medical attention.
<b>If Swallowed</b>	Avoid ingestion. Otherwise, consume a considerable quantity of water. Seek medical attention.
<b>GENERAL INSTRUCTIONS</b>	Avoid spillage, splashing and mishandling. Precautionary measures for body protection are strongly recommended before use.

 **Read the Material Safety Data Sheet before using this product.**

For detailed information on safety and health, please refer to Material Safety Data Sheet and/or Product Label.

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