



ANTIFROZEN OIL 25

Product Code : Q00038

Product Group: FUEL OIL TREATMENT

Packaging: 25L

PRODUCT DESCRIPTION

ANTIFROZEN OIL 25 pour point depressant is an ashless, low temperature flow improver for marine distillate fuels, including marine gas oil (MGO), hybrid and ultra-low sulfur diesel (ULSD) fuel. ANTIFROZEN OIL 25 modifies the crystallization of the wax or paraffin normally found in distillate fuels when subjected to low storage temperatures.

As more vessels are transiting polar waters, the IMO has already proposed the International Code of Safety for Ships Operating in Polar Waters, or the Polar Code. As more operators evaluate routes across this region to gain voyage efficiencies, it is essential they consider the possible issues regarding the suitability of fuel bunkered prior to entering cold waters.

When vessels' fuels are subjected to cold sea temperatures, especially during winter or in arctic waters, and are left untreated, fuels will accumulate wax deposits that lead to poor pumpability and filter plugging. In extreme cases, where the fuel is subjected to extremely cold conditions, the fuel will solidify in storage or transfer, leading to engine starvation.

To counter these harsh conditions, ANTIFROZEN OIL 25 is formulated to depress the pour point and improve the cold flow properties of typical marine distillate fuels. ANTIFROZEN OIL 25 provides superior cold filter plugging point (CFPP) and pour point depression. The advanced chemistry in ANTIFROZEN OIL 25 minimizes the need for expensive kerosene addition and dilution. Generally, when treating fuel that has a cloud point greater than -16°C , ANTIFROZEN OIL 25 will prevent wax buildup and provide trouble-free flow in cold conditions.

APPLICATION, DOSAGE & CONTROL

Eurochem International recommends that fuel deliveries be representatively sampled and analyzed. This action will enable determination of overall fuel quality, pinpointing properties that may lead to fuel handling and/or combustion issues. Consult your local Eurochem International representative for further details on fuel sampling equipment and fuel analysis services.

The fuel must be above its cloud point prior to treating with ANTIFROZEN OIL 25. Cloud point is the temperature at which wax crystals begin to form. For ships that routinely operate in arctic waters, Eurochem International recommends the Cloud Point Meter for automatic determination of cloud point on board. Cloud point is different from cold filter plugging point (CFPP). CFPP is the lowest temperature at which a fuel will give trouble-free flow.

CFPP analysis is available through EUROCHEM shore-based Fuel Analysis. Pour point, unlike cloud point, is a more common test provided by bunker suppliers (e.g., certificate of analysis). Pour point is the temperature at which the accumulation of wax prevents the fuel from having any movement. Once the fuel reaches its pour point, it solidifies until the temperature increases sufficiently to thaw the wax deposits.



The dosage of ANTIFROZEN OIL 25 depends on the cloud point and homogeneity of the fuel. A sample should be obtained from the nominated delivery tank(s) or during the initial delivery at the bunker manifold. Afterwards, the sample should be immediately analyzed for cloud point and stability. While ISO 8217:2012 DMX grade which is used for emergency diesel and lifeboat engines, has a maximum cloud point requirement of -16°C, it is recommended that the cloud point be between 4°C to 6°C below the lowest ambient temperature at which the vessel will be operating. In absence of a cloud point meter, all suspect fuels should be treated prior to bunkering. The dosage is 1:500 or 1 liter of ANTIFROZEN OIL 25 per 0.5 MT of fuel.

The stability of the fuel may impact the effectiveness of ANTIFROZEN OIL 25. Unstable fuels may require additional treatment to overcome wax deposit formation. In the absence of a Spot Number result, use the dosage assuming a spot #4 or #5 when cloud point is known. Stability may be quickly determined using the COMPATIBILITY TEST, available from Eurochem International. Refer to the COMPATIBILITY TEST product data sheet for technical details and ordering information about that test kit.

ANTIFROZEN OIL 25 Dosage Rate	Stability, Spot Number		
Cloud Point, °C	1	2 or 3	4 or 5
> +8.0	1:500	1:500	1:500
+ 4.0 < CP ≤ +8.0	1:1,000	1:500	1:500
0.0 < CP ≤ +4.0	1:2,500	1:1,000	1:500
- 4.0 < CP ≤ 0.0	1:5,000	1:2,500	1:1,000
- 8.0 < CP ≤ -4.0	1:10,000	1:5,000	1:2,500
- 12.0 < CP ≤ -8.0	1:15,000	1:10,000	1:5,000
- 16.0 < CP ≤ -12.0	1:20,000	1:15,000	1:10,000
CP ≤ -16.0	No treatment necessary		

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