

# MagCare GT30C

High temperature Corrosion Inhibitor for Gas Turbines

MagCare GT30C is a Highly Advanced Nano Dispersed highly concentrated Oil-soluble Magnesium Carboxylate fuel additive for crude and residual fuels (Type A & B Fuels) with applications specifically in Gas Turbines and Diesel Engines. It gives reliable high temperature corrosion protection of gas turbines on high ash-bearing fuels. MagCare GT30C provides a minimum of 30% active magnesium, in a non-abrasive, ready to use and highly soluble form. It is a specially designed product to prevent high-temperature corrosion in gas turbines caused by vanadium found in crude and residual grade fuel oils by increasing ash melting temperatures. MagCare GT30C also aides in the dispersion of asphaltenes found in fuel oils allowing better filtration and atomization of the crude and residual fuels. A reduced additive consumption lowers transport costs, handling efforts, storage requirements and other operational expenses.

MagCare GT30C is a high-tech product effectively preventing high temperature vanadic oxidation.

**MagCare GT30C** can be used in conjunction with other crude or fuel oil treatment.

### **Key Features & benefits**

- Low sodium, potassium and calcium levels to meet the specifications for both type A & B fuels.
- Offers significant economic and operational benefits. Drastically reduces consumption compared to lower concentrate additives.
- 30% of highly reactive magnesium ensure reliable high temperature corrosion protection in the hot gas path of the turbines and furnace, super heater and re-heater tubes.
- Modifies Boiler plant / Process Heater Fly Ash.
- Reduces Acid Dew Point of Exhaust Gases.
- Reduces Boiler Plant Cold-End cession & also cold end sulphuric acid corrosion.
- Exceptionally high stability, water tolerance and asphaltene compatibility in crude oils and heavy residual-grade fuels.
- Removes existing hard deposits of vanadium and sodium and inhibits the formation of new hard and corrosive deposits.
- Inhibits vanadium/sodium initiated high temperature corrosion.
- Reduces initiated low temperature corrosion.
- A very good reactive magnesium oil soluble (carboxylated) fuel additive for use in Gas Turbines
  & Diesel Engines.

# **Application**

### **GAS TURBINES & DIESEL ENGINES**

MagCare GT30C corrosion inhibitor has to be diluted and used for Gas Turbine liquid fuels contaminated with Vanadium. MagCare GT30C increases the fusion point of corrosive metallic, ash forming constituents in the fuel. MagCare GT30C reduces slag formation by promoting the formation of powdery, non-tenacious ash for easy removal by soot blowing or water washing. MagCare GT30C will suppress the oxidation of SO<sub>2</sub> into SO<sub>3</sub> by decatalysing hot reactive surfaces and therefore reduces the risk of sulphuric acid corrosion of the plant cold end. MagCare GT30C is a ready to use oil soluble liquid for injection directly into the fuel handling system.

### Dosage

The dosage rate is dependent on content of vanadium and sodium in the fuel. MagCare will help to recommend dosage rate based on fuel type used.

# **Product Data Sheet**

### **PROPERTIES**

Product type: Magnesium Carboxylate

Mg in wt%: 30

Appearance: Dark Greyish to Black Liquid Viscosity @ 25°C: 350 - 650 cPs Specific Gravity @ 30°C: 1.40 ± 0.05

Particle Size: d90 below 2 micron

# Materials Compatibility Suitable:

Metals: 316 Stainless Steel, , Mild Steel C1018, Aluminum 7075-T6, 304 Stainless Steel Plastics: Polyethylene, Nylon 11, HYTREL® 6356, PEEK<sup>TM</sup> Elastomers: Nitrile Buna N, PTFE, VITON® 75, VITON® 58 Shore 90

### Not suitable:

Plastics: Polypropylene Elastomers: HNBr, EPDM

## **PACKAGING**

200 L Epoxy Coated Metal Drums 1000 L IBC

#### **HANDLING**

MagCare GT30C should be handled in the same way as diesel oil.

Please refer to the product label and the Material Safety Data Sheet (MSDS) for more detailed information.

#### Storage

The product is stable for a longer period if it is stored and sealed in the original containers. Drums and containers should be closed when not in use.

### Shelf life

1 year from the date of manufacture.

The information given in this document is based on the present state of our knowledge, but any conclusions and recommendations are made without liability on our part. Buyers and users should make their own assessment of our products under their own conditions and for their own requirements.

