

Technical Data Sheet

“rb bertomeu” Mg Colloidal 28

Vanadium corrosion inhibitor and ash acidity reducer

Vanadium, Sodium and SO₃ corrosion inhibitor for Heavy Fuel Oil and crude oil in Gas Turbines, Boilers, Furnaces and 2-stroke big engines.

It **neutralizes** the inlays and corrosions caused by Vanadium, Sodium and **SO₃** and it **reduces the ash acidity**.

Composition:

The “rb bertomeu” Mg Colloidal additive contains [72-picometer Magnesium molecules \(pm: 10⁻¹² meters\) with a surface area of ≈1,800 m²/gram soluble in the fuel \(Technical Document RB-31\)](#), plus nanoparticles of MgO <100 nanometers (nm:10⁻⁹ meters) with surface area of ≈ 400 m²/gram and organic solvents in a colloidal dispersion. Magnesium molecules fully react with Vanadium and Sodium, do not generate residues or ash and do not cause scale in the gas circuit.

The Magnesium Oxide nanoparticles, smaller than 100 nanometers, are 1,000 times smaller and are more reactive than micrometer particles of <2 microns.

Applications:

Soluble in Heavy Fuel Oil and Crude Oil for boilers, furnaces, gas turbines and 2-stroke big engines.

Goal:

To prevent slag, deposits, inlays and corrosions caused by Vanadium, Sodium, and Sulphur and to reduce the ash acidity.

Effects:

It neutralizes corrosion at the combustion chamber and in the high and low temperature circuit.

It inhibits the consistent and hard slags formed at the combustion chamber and inlays at the high-temp. gas areas.

It transforms slags, deposits and inlays into fine, inconsistent residues that are easily removed by blowing and in scheduled maintenance. Increases the ashes' pH and reduce the acid corrosion.

PHYSICAL PROPERTIES

Magnesium contents in weight	28% Mg Wt/Wt
Liquid Magnesium molecules size	100% of 72 pm (picometer)
Particle size of MgO	99,9% <100 nm (nanometer)
Physical state	Liquid. Soluble in hydrocarbons
Color.....	White
Characteristic odor	Mild hydrocarbon odor
Flash point (°C)	> 65 (C.C.)
Viscosity at 25°C (100°F) (cSt.)	< 200
Pour point (°C)	< -18
Density at 15°C (59°F) (Kg/m ³).....	1,250 – 1,350
Solubility in fuel oil and crude oil.....	Soluble
Solubility in water	Insoluble

INJECTION POINT: The addition must take place in the inlet pipe to the storage tank using a metering pump.

DOSE: According to Vanadium, Sodium and Sulphur contents in the fuel and according to the thermal machine.

If you have any technical or commercial question, please fill-in and send this [form](#). Please also use it if you want us to help you to establish the recommended dose.

PRESENTATION: HD-PE IBC with 1,000 liters (1,250 Kg), Metal drums with 200 liters (250 Kg)

TRANSPORT AND ENVIRONMENT:

Catalogued as NON-hazardous for ADR/RID, ADN, IMDG and IATA transportation.

Catalogued as NON-hazardous for the environment.

MANUFACTURER AND COUNTRY OF ORIGIN: Manufactured by “rb bertomeu” in Spain (European Union)

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