

Technical brochure and Cost of treatment

"rb bertomeu" beco F2/A Concentrated

Since 1996

Since 2018 Concentrated Additive

Treatment for fuel oil and crude oil from boilers / steam generators, ovens and dryers.

Vanadium and Sodium corrosion inhibitor and dispersant additive for **Heavy Fuel Oil and Crude Oil**. **Optimizes** the combustion, **reduces** the fuel consumption as well as the pollutant emissions and **saves** maintenance costs in **boilers/steam generators, furnaces and dryers**.

EFFECTS

Reduces coking in burners. Minimizes scale formation in heat exchangers. Improves the energy efficiency of the thermal machine. Reduces soot emissions with combustion gases.

Dispersant of carbons and asphaltenes which reduces sludge by **55%** and the trigger rate at the water treatment plants. **It keeps the filters clean**. **Desemulsifier**, it decants the water and removes algae and fungi. **Stabilizer** that slows the fuel degradation. **Detergent**, it keeps clean injectors, **improves combustion** and reduces the emission of unburned particles by **80%**. Soluble **Magnesium molecules** which **neutralizes** Vanadium and Sodium corrosion at the heat exchangers.

COMPOSITION

- a) **>40%** Soluble Magnesium carboxylate / Magnesium Organic salts of Fatty acids (molecules-trade secret) soluble in hydrocarbons. [see point a-1]
- b) **>35%** **Dispersants**, surfactants, stabilizers, detergents, corrosion inhibitors, demulsifiers, and biocides. [see points b-1 to b-7]
- c) **<25%** Organic **solvents**. [see point c-1]
- d) Density: 0.900 Kg/L

a-1) Soluble Magnesium carboxylate / Magnesium Organic salts of Fatty acids (molecules-trade secret) soluble in hydrocarbons.

Active area / Surface area of 1 gram of Magnesium molecules: $\approx 1,800 \text{ m}^2/\text{g}$

b-1) Dispersants, which cause the uniform separation of particles of asphalts, coals and other solids which the fuel oil contains, minimizing sludge formation.

b-2) Surfactants, which reduce the surface tension of the fuel and achieve better pulverization.

b-3) Demulsifiers, which accelerate the speed of separation of the water, to the bottom of the storage tank, where it can be easily removed.

b-4) Biocides, which prevent the bacterial and fungal contamination in the storage tanks.

b-5) Stabilizers, which delay the ageing and normal degradation of the fuel, and avoid the increase in sediments by increasing the size of the small particles in suspension.

b-6) Detergents, which reduce the formation of coal deposits and flow loss in the injectors, and maintain an excellent pulverization.

b-7) Corrosion inhibitors, which protect the metal parts of the fuel circuits.

c-1) Organic solvents with flash point $> 65 \text{ }^\circ\text{C}$. (C.C.)

DOSAGE / INJECTION POINT: At the intake of the fuel storage tank

Heavy Fuel oil according to Conradson Micro Residue, **MCR %** and **Vanadium ppm**

MCR %	$\leq 6\%$	9%	11%	12%	13%	14%
Vanadium ppm	25	35	50	100	150	200
Kg / MT of fuel	0.08	0.10	0.12	0.18	0.25	0.32
Additive: fuel ratio	1:12500	1:10000	1:8333	1:5555	1:4000	1:3125

For higher **MCR** contents, complement with the "[rb bertomeu](#)" beco **F-Plus Concentrated** additive.

COST OF TREATMENT ACCORDING TO THE FUEL AND THE SUPPLIED QUANTITY OF ADDITIVE

Cost of treatment for fuel oil with MCR 6% and Vanadium 25 ppm (Suggested dose 0.08 Kg/MT of fuel)				
beco F2/A Concentrated additive. 1 Kg	26.10 €/Kg	21.45 €/Kg	11.04 €/Kg	10.65 €/Kg
Package	5 L	25 L	4 drums x 200 L	IBC x 1000 L
Cost of treatment for 1 MT of fuel	2.088 €/MT	1.716 €/MT	0.883 €/MT	0.852 €/MT

Prices and conditions:

- Tax base
- Freight paid to destination in mainland Spain and the Balearic Islands
- Export: Incoterms 2020 FCA Air and Sea FOB, from Barcelona
- Export: **Express shipment by air 1-2 weeks to any worldwide destination**
- Prices valid until December 30, 2020
- NC-TARIC code: 3811 90 00

If you have any technical or commercial question, please fill-in and send this [form](#).

PRESENTATION

1000-liters HD-PE IBC, 220-liters metal drums, 25-liters and 5-liters HD-PE Jerrycans.

ENVIRONMENT AND TRANSPORTATION

Liquid product hazardous for the environment.

Cataloged for transportation ADR/RID, ADN, IMDG and IATA: **Class 9, P.G. III, UN 3082**

MANUFACTURER AND COUNTRY OF ORIGIN

Manufactured by "rb bertomeu" in Spain (European Union)

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