

DeCORE BE

DeCORE BE is a water-soluble, anionic, non-foaming amine borate. It is a very effective corrosion inhibitor for ferrous and non-ferrous metals in neutral to mildly alkaline systems including aerosol formulations.

SPECIFICATIONS

| | |
|--------------------------|------------------------------|
| Appearance @ 25° C: | Clear to hazy viscous liquid |
| Color (Gardner): | 2 max. |
| pH (1% in DW): | 9.3 – 10.3 |
| Alkali Value, mg KOH/gm: | 570 - 600 |

SOLUBILITY (10% by weight): DeCORE BE is soluble in water and glycols. It is insoluble or dispersible in alcohols, solvents and oils.

TYPICAL PROPERTIES

| | |
|----------------|------------|
| % Activity | ~100% |
| Density @ 25°C | ~1.15 g/ml |

- Corrosion inhibitor in aqueous systems at pH 7 – 10
- Corrosion protection in aerosol cans
- Non-foaming
- Hard water stability
- Biodegradable
- Non-phenolic
- Approved for use as inert in non-food pesticide formulations
- Not recommended for use in acid systems

APPLICATIONS:

- Synthetic coolants & cutting fluids for ferrous and non-ferrous metals
- Cooling tower additive
- Corrosion inhibitor for down-hole drilling
- Corrosion inhibitor for radiator
- Corrosion inhibitor for aerosol cans
- Corrosion inhibitor for aqueous paints & coatings
- Metal working fluids

Continued

Amtec Center • 6421 Congress Avenue • Boca Raton, FL 33487 • (561) 994-9696 • FAX (561) 994-9995
www.DeForestEnterprises.com • info@DeForestent.com

The information and suggestions given are drawn from data we believe to be reliable, but in all cases the user should check and confirm the suggestions and results in his/her own use before proceeding further. DeFOREST Enterprises, Inc. offers no warranties other than to guarantee the products are manufactured to specifications and cannot assume any liability or risk involved in the use of our products since these conditions of use are beyond our control. None of the suggestions or recommendations constitute freedom from any patents that may be existent in the field or be issued.

Corrosion Inhibition Experiments

Metal Panel Submersion Test

DeCORE BE was tested at 0.5% by weight in distilled water and hard water (100 ppm as CaCO₃ & 71 ppm as chloride) on cold rolled steel panels in closed glass jars at room temperature for 6 months.

In the photos below, the panels on the left are controls and do not contain corrosion inhibitor. The panels on the right contain **0.5% DeCORE BE** in solution.

The bottom half of the metal panels were submerged in the test solutions. The top half of the panels were exposed to the vapor phase.

Steel Panels: SAE 1010 Cold rolled steel (mild carbon)

Distilled Water



Hard Water



Continued

Amtec Center • 6421 Congress Avenue • Boca Raton, FL 33487 • (561) 994-9696 • FAX (561) 994-9995
www.DeForestEnterprises.com • info@DeForestent.com

The information and suggestions given are drawn from data we believe to be reliable, but in all cases the user should check and confirm the suggestions and results in his/her own use before proceeding further. DeFOREST Enterprises, Inc. offers no warranties other than to guarantee the products are manufactured to specifications and cannot assume any liability or risk involved in the use of our products since these conditions of use are beyond our control. None of the suggestions or recommendations constitute freedom from any patents that may be existent in the field or be issued.

Corrosion Testing in Aerosol Cans

Tin plate (lined and unlined) aerosol cans were partially filled with solutions of DeCORE BE at 0.5% by weight in distilled water or hard water (100 ppm as CaCO₃ & 71 ppm as chloride). The cans were covered and stored at room temperature for 5 months and observed for corrosion.

Grey Lined, Tin Plate Cans (AAC-7809 McKernan Packaging)

Control, No Inhibitor, Hard Water



0.5% DeCORE BE in Hard Water



Grey Lined, Tin Plate Cans (AAC-7809 McKernan Packaging)

Control, No Inhibitor, Distilled Water



0.5% DeCORE BE in Distilled Water



Continued

Amtec Center • 6421 Congress Avenue • Boca Raton, FL 33487 • (561) 994-9696 • FAX (561) 994-9995
www.DeForestEnterprises.com • info@DeForestent.com

The information and suggestions given are drawn from data we believe to be reliable, but in all cases the user should check and confirm the suggestions and results in his/her own use before proceeding further. DeFOREST Enterprises, Inc. offers no warranties other than to guarantee the products are manufactured to specifications and cannot assume any liability or risk involved in the use of our products since these conditions of use are beyond our control. None of the suggestions or recommendations constitute freedom from any patents that may be existent in the field or be issued.

Unlined, Tin Plate Cans (AAC-8001 McKernan Packaging)

Control, No Inhibitor, Hard Water



0.5% DeCORE BE in Hard Water



Control, No Inhibitor, Distilled Water



0.5% DeCORE BE in Distilled Water

