

TECHNICAL DATA SHEET

Inhibitor BB / BFF

Description

Inhibitor BB and BFF are corrosion inhibitors which give secondary benefits in respect to bio-stability/

BB is a boron containing ionic compound and BFF is an ionic boron-free compound.

The inhibitors are designed to be very compatible with synthetic and semi-synthetic water-mix metal working fluids with zero to medium oil contents. Giving benefits in corrosion inhibition, buffering and bio-stability.

These inhibitors can enable the formulation of formaldehyde-free, and bactericide-free coolants with good stability. Bacteria growth is maintained below UK HSE guidelines for coolants



Inhibitor BB / BFF

Benefits

- Proven performance for over two years.
- Relatively easy formulation into metal working fluids.
- Good corrosion inhibitor, enhances corrosion protection of synthetic and semi-synthetic metal working fluids.
- Good cost effectiveness

Typical Physical Properties

Appearance	Pale Yellow
Foaming Tendency	Low
Viscosity at 25°C	Low
Amine content	33%
Acid content (boric or boron-free)	33%
Usage Concentration	Depends on application.

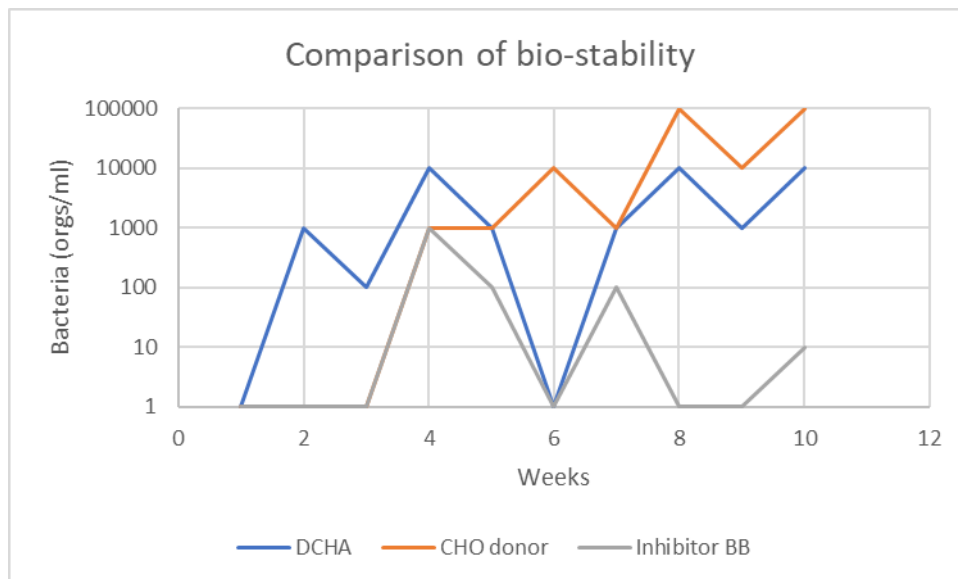
Treat-rate

Synthetic (oil-free true solutions) 6%

Semi-synthetic 7.6%

Bio-stability Tests

Circulation tests were carried out comparing DCHA (6%), a formaldehyde-donor (1.5%), and Inhibitor BB (7.6%) containing semi-synthetic (20% Oil, 10% amine borate).



Corrosion Tests

Ferrous

Corrosion inhibitor – 10% treat-rate	20% Oil semi-synthetic	Synthetic (oil-free) true solution. Inhibitor only source of carboxylate corrosion inhibitor.
Inhibitor BB	2% (break point)	4% break point
Inhibitor BFF	2% no corrosion	2% break point
MEA-Borate	2% (break point)	4% break point
MEA-Dibasic acid mixture	2% no corrosion	2% break point

Non-ferrous

No benefits were observed in non-ferrous corrosion inhibition. We can offer inhibitors for aluminium stain inhibition and copper passivation.