

Scale Inhibitor BS 648A

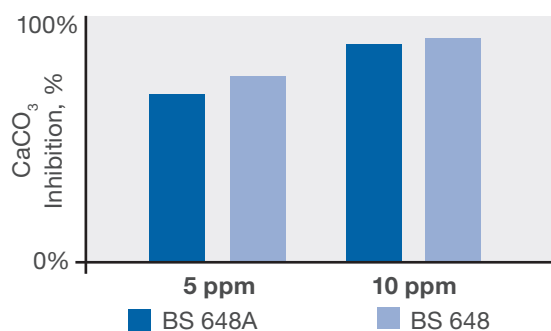
BS 648A. A more sustainable solution to optimize treatment cost compared to similar phosphonate chemistries.

Scale inhibitors are necessary to prevent inorganic scale deposition which can cause flow assurance issues by plugging downhole and production equipment, reducing the internal diameter of process equipment, and impacting oil-water separation. Scale inhibitors work by slowing down or preventing the nucleation and/or crystal growth of inorganic scales. A successfully deployed scale control program will reduce process downtime, pumping energy, maintenance costs, and extend the lifetime of equipment and piping.

NACE Certified Performance Tests

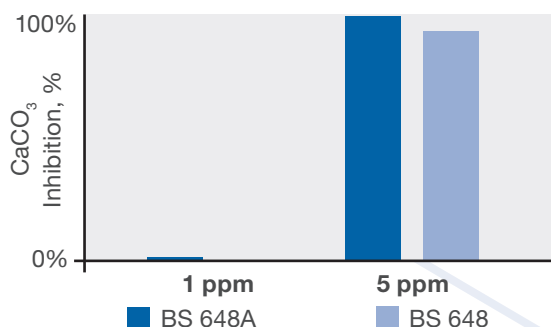
Water Matrix	mg/L
Na ²⁺	27,977
Ca ²⁺	3,312
Mg ²⁺	440
HOC ₃ ⁻	5,346
Cl ⁻	46,539

Calcium Carbonate – NACE TM0374-2016-SG



Barium =	250
Calcium =	7500
Chloride =	40639
Iron =	0
Magnesium =	2500
Sodium =	15030
Strontium =	1500
Sulphate =	100

Barium Sulfate: NACE TM0197-2019



Features and Benefits

- > Suitable for continuous injection and squeeze applications
- > Cost-effective, general-purpose scale inhibitor
- > Highly efficient in controlling barium sulfate and calcium carbonate scales
- > Exhibits strong anodic properties, functioning as a corrosion inhibitor in oxygenated systems such as cooling towers and drilling fluids
- > Excellent tolerance to high calcium brines
- > Improved manufacturing process that generates zero hazardous waste

Market Drivers

BS 648A is a cost competitive phosphonate scale inhibitor that is effective at treating a broad range of oilfield scales, even under challenging conditions. Lubrizol's BS 648A delivers comparable performance to BS 648 BS 648 without generating hazardous waste normally associated with phosphonate manufacturing. BS 648A stays true to our commitment of reducing waste and building a more sustainable future.

The Lubrizol Corporation
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