

BIODRILL GREENSCAV ZN

A sustainable H₂S Scavenger for the oil & gas industry



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Borregaard's GreenScav Zn is a water-soluble zinc complex used for scavenging H₂S in brine and fresh-water systems.

BioDrill GreenScav Zn combines zinc(II) with lignosulfonate to provide an efficient H₂S scavenger that also aids in dispersion of solids. GreenScav Zn is effective at both acidic and alkaline pH and is supplied in a powder form that readily dissolves in water.

APPLICATION

Zinc-based scavengers function by reacting with H₂S to form extremely insoluble zinc sulfide. When zinc is combined with lignosulfonate, the availability of metal to scavenge H₂S is improved, resulting in faster kinetics and higher efficiency compared to standard Zn-based products like zinc carbonate, zinc oxide, etc. GreenScav Zn powder can be used to prepare a 12 wt% to 35 wt% solution in water.

Recommended dosage:

- Greenscav Zn: one pound per barrel (1 lb/bbl or 2.85 kg/m³) for 190 mg/L H₂S

ADVANTAGES

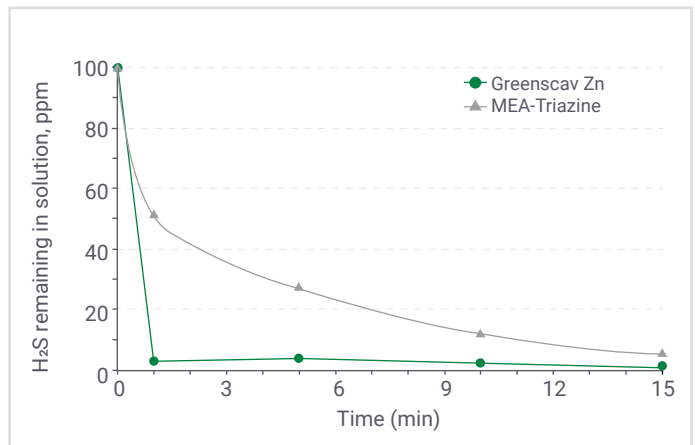
- Water soluble
- Efficiently removes hazardous H₂S
- Faster kinetics compared to MEA-triazine
- Built-in dispersing capacity
- Does not cause scaling
- Corrosion protection properties

- High scavenging efficiency maintained even at high H₂S concentrations
- Efficient at both acidic and alkaline pH conditions

H₂S SCAVENGING PERFORMANCE

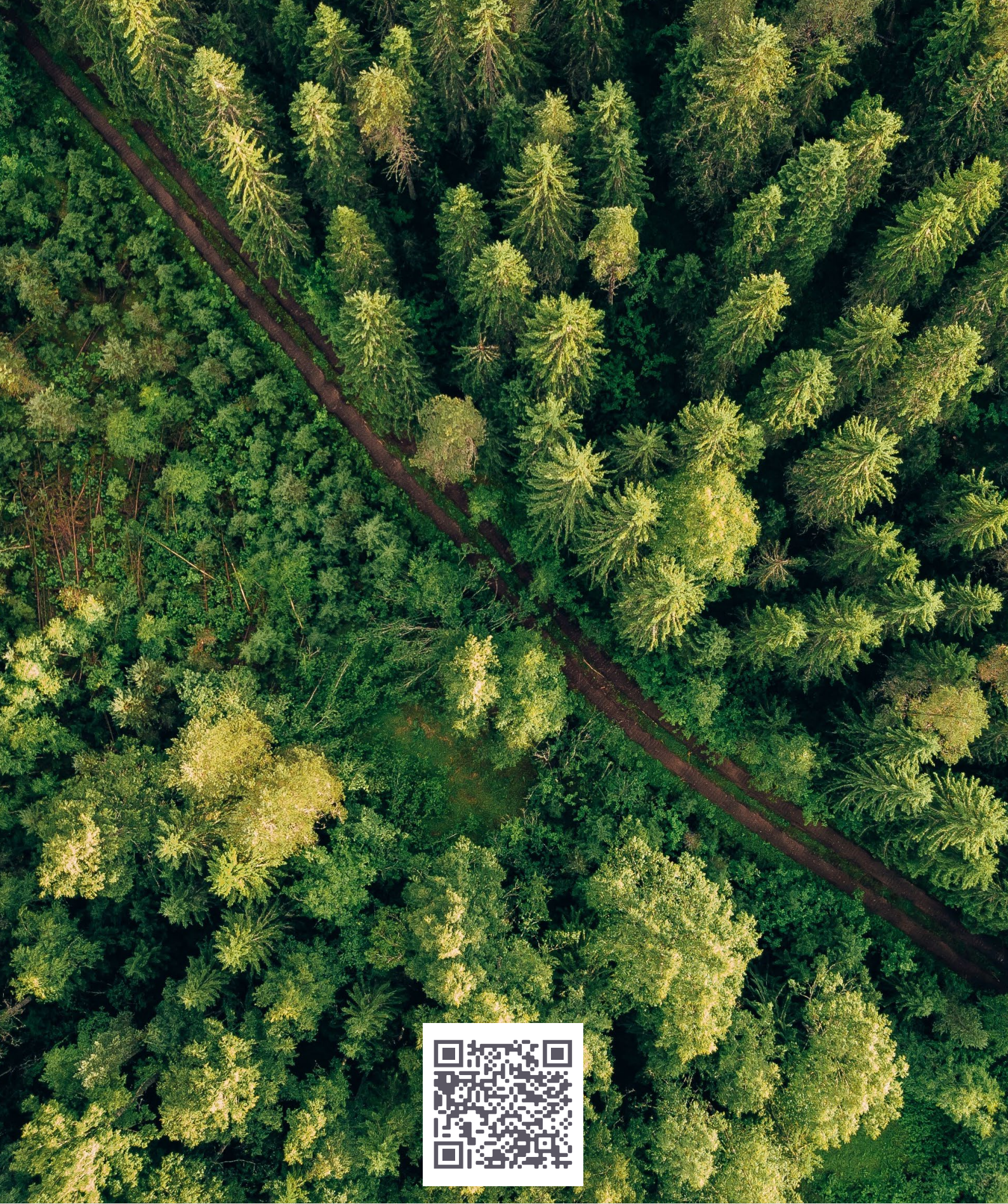
Scavenging tests were conducted in a sealed test vessel containing synthetic brine at pH 6 and 55°C. The scavenging was monitored at regular time intervals using Garrett gas train.

GreenScav Zn shows rapid scavenging kinetics, with all the H₂S reacting within 1 min of scavenger addition. In comparison, MEA triazine shows a gradual reduction in H₂S concentration at its theoretical dosage requirement.



H₂S scavenging with GreenScav Zn (1.5 kg/m³) and MEA triazine (0.6 kg/m³) in synthetic brine at pH 6 and 55°C.





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