

Dual-Soluble Sulfur Scavenger for Oil & Gas Systems

Advanced Zinc-Based Solution for Efficient Hydrogen Sulfide Control in Oilfield Systems

H₂S Scavenger



Product #: UBPro-445

Introduction

UBPro-445 is a highly effective, zinc-based, dual-soluble sulfur scavenger designed for use in both hydrocarbon (oil/gas) and aqueous systems. Its advanced formulation enables efficient neutralization and removal of hydrogen sulfide (H₂S) and mercaptans across a wide range of applications, including crude oil, natural gas, produced water, and oil-based drilling fluids.

The product demonstrates excellent performance under both continuous injection and batch treatment conditions. Due to its dual solubility, UBPro-445 ensures comprehensive phase coverage, improving treatment efficiency and operational flexibility. It is particularly suitable for eliminating high concentrations of H₂S overflow in drilling operations, making desulfurization processes safer, more efficient, and easier to manage.

UBPro-445 forms stable, soluble reaction products, ensuring no secondary pollution and minimizing risks of scaling or deposition.

Key Benefits

- ✓ Dual Solubility: Effective in both oil and water phases
- ✓ High Efficiency: Rapid reaction with H₂S and mercaptans
- ✓ Non-Fouling: Reaction products remain soluble, preventing deposits
- ✓ Operational Flexibility: Suitable for continuous and batch treatments
- ✓ Wide Applicability: Performs well across various temperatures and system conditions
- ✓ Environmentally Considerate: No secondary contamination

Applications

- ✓ Oil & gas gathering and transportation systems
- ✓ Crude oil and natural gas treatment
- ✓ Produced water treatment
- ✓ Drilling Muds: Can be used in water-based muds to control sulfide contamination.
- ✓ Systems with high H₂S concentration challenges
- ✓ Refining & Petrochemicals: Protection from sulfide corrosion

Recommended Handling

- The recommended dosage is highly dependent on system-specific parameters such as concentration of H₂S. A typical treatment range is 100 - 300 ppm(w/v), but a pilot test is required for optimal results.
- Handle as an industrial chemical wearing protective equipment and observing the precautions of described in the Material Safety Data Sheet (MSDS).
- Notes: Field trials are recommended for optimal dosage determination.

Technical Index

Items	Specifications
Appearance	Colorless to transparent liquid
Water Solubility	Soluble
pH value(neat)	7.5-9.0
Specific gravity(20°C)	0.92-1.05

Performance Evaluation (Lab Simulation Test)

Test Item	Test Conditions	Result
Initial H ₂ S Concentration	H ₂ S gas cylinder	100ppm
Dosage	UBPro-445	50 ppm
Reaction Time	Static mixing at ambient temperature	3 minutes
Residual H ₂ S (Liquid Phase)	After treatment	≤ 4 ppm
Residual H ₂ S (Gas Phase)	After treatment	Below detection limit

Testing Method

- Laboratory simulations were conducted using H₂S gas to replicate field conditions in sour oil and gas gathering systems. Colorimetric tubes were used as the medium for chemical injection, reaction monitoring, and H₂ S concentration measurement.

Packaging and Storage

- 200L/Drum or 1000L IBC
- Store in dry, well-ventilated area. Keep container closed. Keep away from heat, sparks and flames. Store away from incompatibles. Follow safe warehousing practices regarding palletizing, banding, shrink-wrapping and /or stacking.

For more information on the UBPro H₂S Scavenger Series, Send email: info@youzhuchem.com, or call 0086 13408536218 or for information on other YouzhuCHEM products visit youzhuchem.com