

# ELEMENT 5016

## Hydrogen Sulfide Scavenger - Technical Information

### Description

ELEMENT 5016 is an amine based hydrogen sulfide scavenger for use in the oil and gas industry. The water soluble chemistry irreversibly consumes H<sub>2</sub>S, lowering the concentration of the corrosive and toxic gas in oilfield production and pipeline applications. When ELEMENT 5016 is completely consumed, it produces minimal solids compared to traditional amine based scavengers.

### Applications

The addition of effective H<sub>2</sub>S scavengers can successfully convert this lethal gas into a relatively innocuous compound through an irreversible and complete chemical reaction between the scavenger and sulfide species. ELEMENT 5016 treatment rates are dependent on final product and H<sub>2</sub>S concentrations, contact time, application type, and other field parameters. To achieve the best results during continuous application, the field strength product should be injected directly into the gas phase using an atomizer. Contact time can be increased through upstream injection and tower applications.

### Physical Properties

Appearance	Clear colorless to yellow
Solubility	Aqueous
Specific Gravity (77°F)	1.14 – 1.18
pH	8.0 – 12.0

### Key Benefits

- More applications possible through lower solids generation
- Effective H<sub>2</sub>S scavenger
- Negligible solid formation
- Compatible with phosphonates
- Irreversible and complete reaction

### Handling

Protective eyewear and gloves should be worn when handling this product. The SDS should be consulted for additional physical properties.

The SDS should be consulted for proper safety precautions and PPE recommendations prior to handling.

Liability Disclaimer - The information in this Data Sheet is provided without suggestion of warranty or guarantee. "Physical Properties" are typical values rather than specifications. The user is responsible for investigation for suitability of this product for their own use.

# ELEMENT 5016

Hydrogen Sulfide Scavenger - Technical Information

## Hydrogen Sulfide Breakthrough Test

ELEMENT 5016 was evaluated and compared to 62% MEA Triazine for breakthrough efficacy. ELEMENT 5016 achieved a 71 minute run time with zero H<sub>2</sub>S ppm breakthrough, and 62% MEA Triazine ran for 74 minutes under identical conditions.

## Spent Scavenger Solid Comparison Test

Solids produced during the reaction between triazine and other H<sub>2</sub>S scavengers are problematic for many applications. The interest of this study was to compare the solids created by ELEMENT 5016 in comparison to MEA Triazine. This test was carried out by sparging pure H<sub>2</sub>S through scavenger until saturation occurred. ELEMENT 5016 exhibits a substantial improvement for reduced production of solids, which could greatly lower the cost of bubble tower workovers, pipeline solids remediation, and downstream wastewater handling. The image below depicts the difference between solids generated from MEA Triazine vs ELEMENT 5016 in extreme saturation conditions.



**MEA Triazine**

**ELEMENT 5016**

---

The SDS should be consulted for proper safety precautions and PPE recommendations prior to handling.

Liability Disclaimer - The information in this Data Sheet is provided without suggestion of warranty or guarantee. "Physical Properties" are typical values rather than specifications. The user is responsible for investigation for suitability of this product for their own use.