

# SULFATREAT–HC

For hydrogen sulfide and mercaptan removal  
from liquid hydrocarbons



*SULFATREAT–HC\* removes hydrogen sulfide and mercaptans from liquid hydrocarbon streams. It utilizes the same basic principles of the SULFATREAT\* processes but with improved reaction and liquid-stability characteristics. It is a dry, granular, non-hazardous material that effectively removes hydrogen sulfide and methyl and ethyl mercaptans from a wide range of liquids, in a fixed-bed process. The capacity of SULFATREAT–HC is 5 to 12% by weight of sulfur compounds. The type of product being treated and the temperature at the point of treatment determine the maximum rising-flow velocity through the media. The bed height needed is determined by the inlet concentration and contact time necessary to meet outlet product specifications.*

## Typical Physical Properties

Appearance and odor .....	Black, granular, odorless
H <sub>2</sub> S removal capacity .....	5 to 12% by weight
Specific gravity, 25°/25° C on dry basis .....	1.0
Weight, lb/ft <sup>3</sup> .....	62

## Applications

SULFATREAT–HC currently has three basic applications:

- **Removal of dissolved H<sub>2</sub>S.** SULFATREAT–HC will react with hydrogen sulfide to form FeS<sub>2</sub>, or pyrite, on the media. Pyrite is a safe and stable form of iron sulfide. Removal of H<sub>2</sub>S reduces the sulfur concentration of the liquid hydrocarbon.
- **Removal of methyl and ethyl mercaptans (in the presence of H<sub>2</sub>S).** SULFATREAT–HC will manageably react with methyl and ethyl mercaptans. A combination of destruction and some conversion to the corresponding disulfide occurs in removing these compounds. Some reaction is observed with heavier mercaptans but cannot be reliably managed at this time.
- **Treating light liquid hydrocarbons.** Full water saturation is not necessary, and separation of excessive water and solids should occur upstream of the SULFATREAT–HC unit. Liquid passes in an up-flow mode with some free space at the top. SULFATREAT–HC should not be used to treat emulsified liquids but will tolerate small amounts of dissolved and entrained water. Typical contaminant levels treated can be up to 1,000+ ppm by design. Single, parallel-flow and lead/lag configurations can be used.



## *Advantages*

- Unused and used product is environmentally safe and stable.
- Reaction is dependent only upon, and proportionate to, presence of H<sub>2</sub>S.
- Improved reaction and liquid-stability characteristics for treating a wide range of liquids.

## *Toxicity and Handling*

SULFATREAT-HC is environmentally safe and environmentally non-hazardous in its unreacted and reacted forms. Follow all federal, state and local regulations for disposal and handling. For complete information, consult the MSDS for this product.

## *Packaging and Distribution*

SULFATREAT-HC is available in 50-lb (23-kg) sacks (40 per pallet) and in 2,000-lb (907-kg) bulk bags.

This information is supplied solely for informational purposes and M-I SWACO\* makes no guarantees or warranties, either expressed or implied, with respect to the accuracy and use of this data. All product warranties and guarantees shall be governed by the Standard Terms of Sale.



SULFATREAT  
A business unit of M-I L.L.C.  
17998 Chesterfield Airport Road  
Suite 215  
Chesterfield, MO 63005  
Toll-Free: 1-800-726-7687  
Tel: 636-532-2211  
Fax: 636-532-2764  
www.sulfatreat.com  
E-mail: info@sulfatreat.com