



TECHNICAL DATA SHEET

SweetGas-DG™

REACTIVE FIXED BED TECHNOLOGY FOR H₂S AND ORGANO-SULFIDE REMOVAL

General Description – SweetGas-DG is a high capacity, nonhazardous granular media made from 98% natural and recycled products. It is comprised of a high porosity mixed iron-oxide tightly bound on a stable hydroscopic inert base. The media is useful for H₂S and light mercaptan control in air and a variety of gasses. This high-capacity media works without oxygen; however a minimum molar ratio, O₂ to H₂S, of one (1) or more will increase reaction speed and improve sulfur removal capacity. Its unique formulation allows reliable performance in air or gas with 50% or more relative humidity without the need for added water.

Product Features

- High capacity sulfur removal, up to 15% by weight for anaerobic (11 lbs sulfur per cu.ft.) and 30% by weight for aerobic conditions (22.5 lbs sulfur per cu. ft.)
- Cost-effective, reliable low level hydrogen sulfide removal with starting outlet levels at non-detect and slowly rising to the desired maximum outlet concentration.
- Reaction products are primarily basic sulfur and some stable iron sulfides
- Does not require full water saturation for reliable performance
- High particle strength and low dust content
- Low and stable pressure drop from beginning to end of run
- Presence of liquid water or hydrocarbons does not interfere with media efficacy
- Can be returned to manufacturer for re-processing or meets US and California requirements for non-hazardous disposal (assuming no process contamination of the media)

Product Uses

- Removal of H₂S and light mercaptans from gas streams

Properties

- **Form:** Random shaped orange/brown/black granules
- **Size:** 3 X 9 mesh
- **pH:** 6.5 – 7.3
- **Solubility in water:** insoluble
- **Flammability:** nonflammable
- **Bulk Density:** 1.2 gm/ml or 74 lbs./cu.ft.
- **Surface Area:** 95 – 120 sq. meters/gm.
- **Pressure Drop:** in. wcg. = (0.072)(gas velocity, ft/min)(bed depth, ft.)
- **Recommended Temperature of Operation:** 32°F to 250°F, 0°C to 120°C
- **Recommended Water Content of the Gas:** 50% to 100% R.H. Some water or liquid hydrocarbon condensation in the media is not a problem
- **Outlet H₂S Concentration (at startup):** Non-detect
- **Outlet H₂S Concentration (end of run):** 0.1 ppm (or greater, by design)

Shipping & Handling

- Non-hazardous
- Avoid breathing excessive dust. Do not take internally.
- Please refer to Material Safety Data Sheet for further information.
- **SweetGas-DG** is available in 50 lb polyethylene bags and 2,000 lb bulk bags.

For product information and a free design of a SweetGas-DG system contact us at:

Sierra Environmental Technologies, LLC

18545 Bridlegate Lane

Wildwood, Mo. 63069

Tel: (636) 273-5189 Fax: (636) 273-4509