General Description:  

**AT 4003** is a unique patented and patent pending high-capacity granular media. It is comprised of high porosity mixed iron-oxides tightly bound on an inert base. This media is specially designed to lessen the negative effect of non-methane VOCs, such aromatics, halogenated hydrocarbons, and aldehyde/ketones, commonly found in landfill gas and in some industrial, digester and natural gas streams. This media is useful for H₂S removal as well as lower amounts of light mercaptans/COS that may be present in a wide variety of gasses. This high-capacity media works dependably without oxygen; however some higher levels of oxygen can increase reaction speed and improve sulfur removal capacity.

**AT 4003** reliably performs in “water-saturated” gas. Added water in the feed gas may be needed if the gas is more than occasionally less than 100% R.H. to achieve expected capacity and level of total sulfur removal.

**AT 4003** will not break down when soaked in water and media life can be extended by brine or water washing/soaking, in place. Spent media can easily be cleaned by a variety of wet/dry methods including vacuum.

Product Features:

- High capacity sulfur removal, up to 14% by weight for anaerobic (10 lbs sulfur/ft³), and up to 21%+ by weight for aerobic conditions (15+ lbs sulfur/ft³).
- Cost-effective reliable low level H₂S removal with starting outlet levels at non-detect and slowly rising to the desired maximum outlet concentration.
- Removes lower levels of mercaptans/COS together with higher level H₂S.
- Effective removal of light mercaptans with virtually no conversion to disulfides that occurs with other iron-based products, with or without O₂.
- High particle strength and low dust content.
- Spent media is easy and safe to handle by a variety of methods.
- Low and stable pressure drop, beginning to end.
- Presence of some liquid water or hydrocarbons does not interfere or degrade the AxTrap media.
- Can be brine or water washed/soaked, in place, to increase sulfur removal.

Product Uses:

- Removal of H₂S and lesser amounts of light mercaptans/trace COS from gas streams.

Properties:

<table>
<thead>
<tr>
<th>Physical Properties (Typical)</th>
<th>Chemical Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form: Random shaped orange/brown/black granules</td>
<td>Proprietary Promoted</td>
</tr>
<tr>
<td>Size: 4 x 8 Mesh</td>
<td>Mixed Iron Oxides</td>
</tr>
<tr>
<td>pH: 6.5 – 7.3</td>
<td>Formed on Inert Base</td>
</tr>
</tbody>
</table>

| Solubility in water: non | Flammability: non |
| Bulk Density: 1.1 g/ml or about 70 lbs/ft³ |

**Recommended Temperature of Operation:** 32°F to 220°F or 0°C to 105°C

**Recommended Water Content of the Gas:** 100% R.H. Some water or liquid hydrocarbon condensation in the media is not a problem.

**Beginning Outlet Concentration at Start:** Non-detected H₂S.

**End-of Life Outlet Concentration by Design:** typically 1 ppm H₂S or higher

Shipping & Handling:

- DOT Non-Hazardous.
- Avoid breathing excessive dust. Do not take internally.
- Please refer to Material Safety Data Sheet for further information.
- **AT 4003** normally available in 2000 lb. bulk bags. Custom packaging is available.

TO ORDER MEDIA:

Contact MV Technologies • Tel: 303.277.1625 • Email: info@mvseer.com

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