

# VOCat™ 310 ST

## Sulfur tolerant oxidation catalyst

**When compared to conventional catalysts, VOCat 310 ST catalyst provides higher activity and excellent stability.**

Many processes contain sulfur-bearing compounds that many traditional catalysts cannot handle because sulfate formation degrades their performance. The alternative has been to employ thermal oxidation which is more expensive to operate. In response to the requirements to maintain high activity for VOC compounds in the presence of sulfur, BASF has developed the VOCat 310 ST sulfur tolerant catalyst.

### Activity

Figure 1 shows how standard oxidation catalysts degrade in performance after exposure to SO<sub>2</sub>. However, VOCat 310 ST catalyst maintains high destruction capability as evidenced by the high rate of CO conversion.

Figure 2 illustrates the performance of VOCat 310 ST catalyst after exposure to over 400,000 ppm-hrs of SO<sub>2</sub>. This level of sulfur would typically degrade the performance of traditional catalysts over time. Despite the presence of sulfate, catalyst activity was not affected at catalyst volumes typical of standard oxidation catalysts. Both the Methyl Mercaptan and DMS are effectively controlled.

### Typical Operating Specifications

<b>Temperature Range</b>	600°F to 900°F (315°C - 480°C)
<b>SO<sub>2</sub> Concentration</b>	Up to 500 ppm
<b>Cell Geometry</b>	100 to 400 cpsi
<b>Performance</b>	99+%

### Applications

Wherever processes have greater than 30 ppm of sulfur species in the gas stream, VOCat 310 ST catalyst is an excellent oxidation catalyst. Generally, most sulfur species generate objectionable odors that are a nuisance for workers and surrounding areas.

VOCat 310 ST catalyst can oxidize 99+% of the sulfur compounds to SO<sub>2</sub> and SO<sub>3</sub> to control odor while also oxidizing VOC compounds.

Just a few of the applications include:

- Groundwater treatment
- Pulping
- Gasification

## About Us

BASF's Catalysts division is the world's leading supplier of environmental and process catalysts. The group offers exceptional expertise in the development of technologies that protect the air we breathe, produce the fuels that power our world and ensure efficient production of a wide variety of chemicals, plastics and other products, including advanced battery materials. By leveraging our industry-leading R&D platforms, passion for innovation and deep knowledge of precious and base metals, BASF's Catalysts division develops unique, proprietary solutions that drive customer success.

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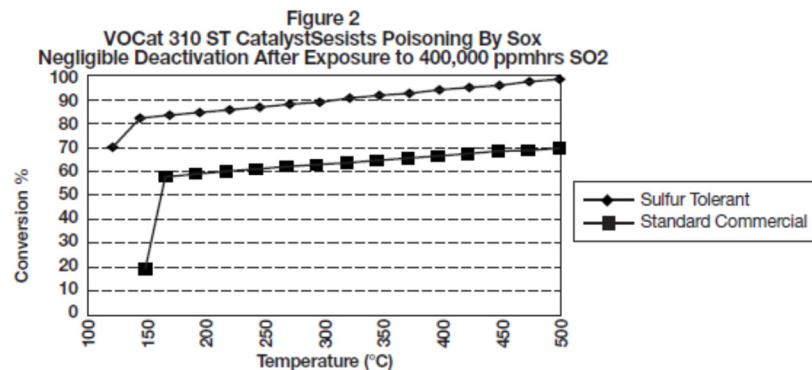
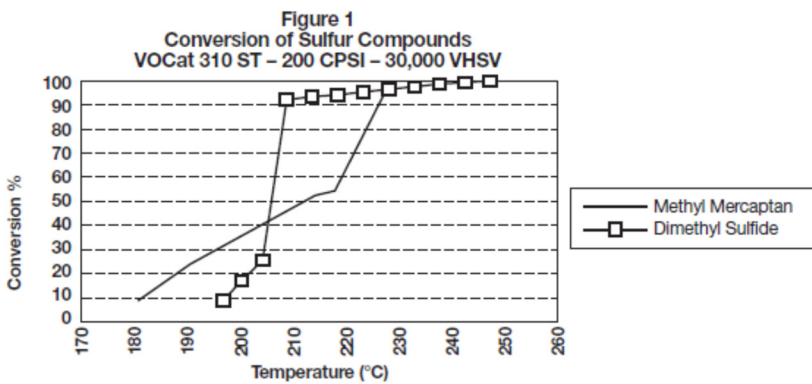
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