

# Improve Storage Stability for Sulfur Compounds

## Using Sulfinert® Treated Sample Cylinders

By Neil Mosesman, Air Monitoring Product Marketing Manager

- Eliminate sample-surface reactions in sample cylinders, collect and store active compounds.
- Obtain accurate data for active sulfur compounds at ppb levels.
- Many treated system components available from stock.

High-pressure sample cylinders are commonly used for collecting and storing refinery and natural gas samples containing trace amounts of sulfur compounds. These highly active compounds degrade very rapidly in stainless steel sample cylinders, making accurate determination of sulfur compounds virtually impossible. Restek's exclusive Sulfinert® surface treatment eliminates the reactivity of high-pressure sample cylinders and allows collection and stable storage of sulfur compounds, even at ppb levels. Figure 1 shows the recovery of 17ppbv hydrogen sulfide, carbonyl sulfide, methyl mercaptan, ethyl mercaptan, and dimethyl disulfide after 60 hours of storage in a Sulfinert® treated sample cylinder. The data show that these active compounds were unaffected by long-term storage in the Sulfinert® treated cylinder.

In addition to Sulfinert® treated cylinders, we also offer Sulfinert® treated valves, tubing, and sample loops to ensure the entire sample pathway is inert. Custom treatment is available for a wide range of items.

### Sulfinert®-Treated Sample Cylinders

- Stable storage of low concentrations of sulfur compounds.
- D.O.T. rated to 1800psi at room temperature.
- 316 stainless steel, 1/4" female NPT threads on both ends.

Size	qty.	cat.#
75cc	ea.	24130
150cc	ea.	24131
300cc	ea.	24132
500cc	ea.	24133
1000cc	ea.	24134
2250cc	ea.	21394

### Sulfinert®-Treated Sample Cylinder Valves and Rupture Discs

- All "wetted" valve parts are Sulfinert®-treated.
- Maximum pressure rating, 5000psi.

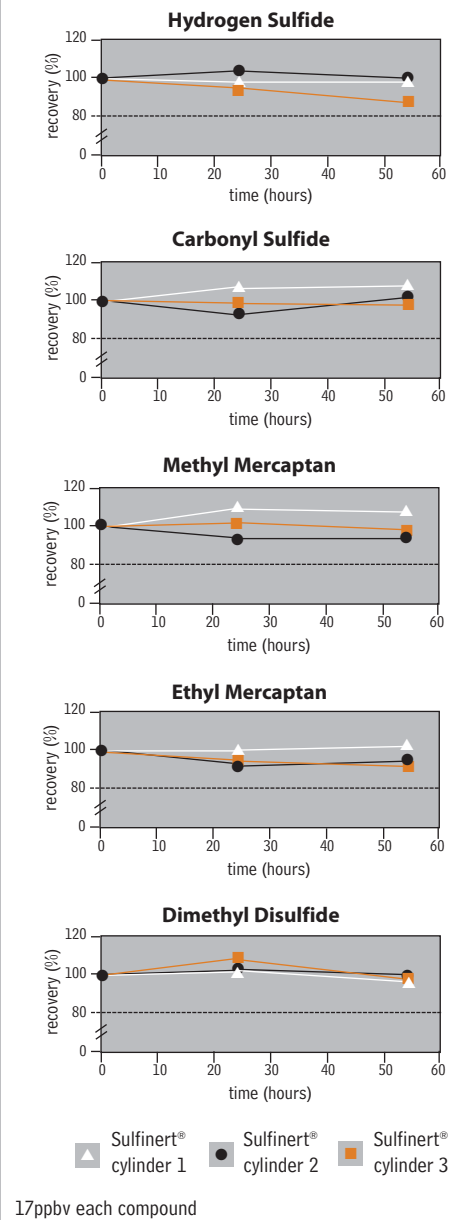
Description	qty.	cat.#
1/4" NPT Exit, Kel-F® Stem Tip	ea.	24127
1/4" Compression Exit, Kel-F® Stem Tip	ea.	24128
1/4" Female NPT Outlet (built-in rupture disc)	ea.	21395

### Sulfinert®-Treated Gas Sample Loops

- Ideal for samples containing low concentrations of sulfur compounds.
- Sizes from 5µL to 5cc.; 1/16" fittings, for "W Type" valves.

Size	qty.	cat.#
5µL	ea.	22840
10µL	ea.	22841
20µL	ea.	22842
25µL	ea.	22843
50µL	ea.	22844
100µL	ea.	22845
250µL	ea.	22846
500µL	ea.	22847
1cc	ea.	22848
2cc	ea.	22849
5cc	ea.	22850

**Figure 1** Active sulfur compounds are stable in Sulfinert® treated sample cylinders.



for **more info**

Please request Applications Note **#59164B** for more details about storing sulfur compounds in Sulfinert® treated cylinders.