Saving Time and Money with Precise and Consistent Sulfur Measurement

A SILCOTEK® CASE STUDY

Airborne Labs International

"SilcoTek's consistent supply of high quality Sulfinert passivated hardware has been a big factor in the ability of our lab to produce high quality trace analysis data to our international customers. Your efforts have also led to greatly improved beverage-grade CO2 quality testing worldwide! You set the standard for excellence."
- Don Pachuta, Ph.D.

SUMMARY:

Airborne Labs International (ALI) is recognized as a preeminent commercial gas and fuels test laboratory and analytical test equipment supplier. ALI partnered with SilcoTek® to coat their gas sampling pathways with SilcoNert® 2000. SilcoNert 2000 (also known as Sulfinert®) improved test sensitivity by orders of magnitude and greatly reduced lab trace analysis variation; saving time and money.

CHALLENGES:

In 1999, a world-renowned soda producer approached ALI with a product stability and sensory issue, sulfur contamination in the CO_2. Unfortunately, trace sulfur can be easily adsorbed onto stainless steel surfaces, making detection difficult if not impossible. Airborne Labs International needed a better solution. Low level testing of sulfurs in beverage grace CO_2 was yielding erratic results. Often trace sulfur was entirely lost or results were not repeatable, causing Airborne Labs to question the reliability of stainless steel sampling cylinders, tubing and equipment for sulfur analysis in beverage grade CO_2.

HOW SILCOTEK HELPED:

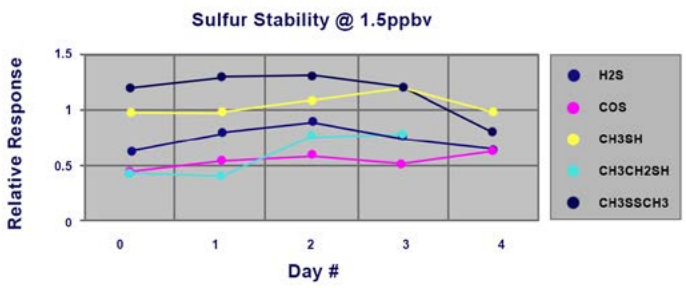
The SilcoTek team worked with Airborne Labs to select SilcoNert 2000, an inert coating resistant to H_2S adsorption. SilcoTek offered extensive trace sulfur analysis data; consultation with R&D staff assisted Airborne in selecting the right coating for optimal trace CO_2 analysis.

GAME-CHANGING BENEFITS:

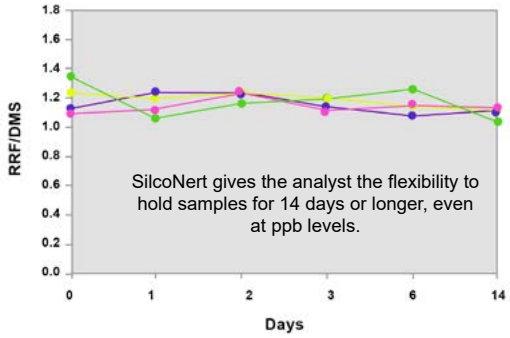
After evaluating test data and consulting with our R&D staff, Airborne Labs selected SilcoNert 2000 (Sulfinert) coating. SilcoNert offers low part-per-billion sensitivity and inertness to sulfur compounds SilcoNert prevents adsorption/loss during sample transfer, enabling Airborne to hold trace sulfur samples for weeks without loss of sample. Today, Airborne Labs sets the standard for beverage grade CO_2 analysis. They offer SilcoNert coatings throughout their product line.

SilcoTek's inert coatings prevent adsorption of sulfur and sulfur compounds, even when low part-per-billion sensitivity is required. SilcoNert allows precise, consistent sulfur measurement over a period of days & weeks, without loss of sample. This assures consistent precise results without costly retesting; saving the lab time and money while assuring accurate results.

Sulfur Stability



Inert and Stable



4 sample cylinders tested to 11ppb sulfur stability demonstrate the inertness of the SilcoNert surface. SilcoNert reduces variation, assuring high quality test data.

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