# Gas Chromatography 87

# Gas Purification/Management

Purifiers: In-Line Purifiers (Remove a Single Contaminant)

# Oxiclear™ Disposable Oxygen/Moisture Trap

Reduces oxygen to less than 1 ppm when the incoming level is below 10 ppm. Also removes some moisture, and organic contaminants.

## Dimensions:

- Oxiclear: 7  $\frac{1}{2}$  in. (19.0 cm) long x 1  $\frac{7}{8}$  in. (48 mm) diameter



Description	Cat. No.	Qty
fitting $\frac{1}{8}$ in.	22992	1 ea
fitting ¼ in.	22993	1 ea

# Carbon Dioxide Trap

Sodium hydroxide nonfibrous silicate material is universally accepted for its high absorptive capacity and indicating properties for carbon dioxide. Typically, this material will absorb 20-30% of its weight in carbon dioxide before replacement of the saturated material is required. As carbon dioxide is absorbed, the greenish-brown material turns white because of the formation of sodium carbonate. The trap body is constructed of borosilicate glass, and the fittings are nickel-plated and have sintered stainless steel frits.

A moisture trap should be installed downstream from this unit to absorb the moisture that is produced.

# Note: Exercise extreme caution when refilling the trap due to the caustic nature of the absorbent.

#### Dimensions:

- 100 cc Traps: 12<sup>3</sup>/<sub>4</sub> in. (32.4 cm) long x 1<sup>3</sup>/<sub>4</sub> in. (44 mm) diameter
- 250 cc Traps: 17<sup>1</sup>/<sub>2</sub> in. (44.4 cm) long x 2 in. (51 mm) diameter



Description	Cat. No.	Qty
volume 100 cc, fitting $\frac{1}{8}$ in.	503185	1 ea
volume 100 cc, fitting $\frac{1}{4}$ in.	503193	1 ea
volume 250 cc, fitting ½ in.	503207	1 ea
volume 250 cc, fitting $\frac{1}{4}$ in.	503215	1 ea

## Carbon Dioxide Trap Refill

Sodium hydroxide nonfibrous silicate material.

503223	500 cc

# **Mounting Clip**

This clip is designed to fit one of our in-line traps based on the volume of the trap. Simply mount two or more clips to a bench or wall using screws (not supplied), then snap the trap into the clips. One plastic clip per package.

Description	Cat. No.	Qty
for use with 100 cc traps	502936	1 ea
for use with 120 cc traps	23993	1 ea
for use with 200 cc traps	503231	1 ea
for use with 400 cc traps	23990	1 ea
for use with 750 cc traps	24983	1 ea

# Specialty In-Line Purifiers for GC-MS Helium

The most sensitive GC-MS instruments require a steady stream of ultra-high purity (99.99999%) helium for optimal performance. To achieve this level, a specialty purifier is required. These purifiers contain multiple adsorbent beds for the removal of all critical contaminants. Additionally, the adsobent materials are packed into the cartridge under helium to ensure no other gas off-gases into the system during use.

## Supelco<sup>®</sup> Helium Purifier

This multiple bed trap removes hydrocarbons, moisture, oxygen, carbon monoxide, and carbon dioxide from helium gas streams. The amount of highly effective, high capacity adsorbent material in each bed is optimized so that breakthrough of each contaminant is as close to simultaneous as possible. This avoids the costly replacement observed with other broad-spectrum traps that have exhausted their capacity for one contaminant, but still have capacity for other contaminants. This trap will easily purify 99.997% purity helium to a cumulative level of 100 ppb (hydrocarbons + moisture + oxygen + carbon monoxide + carbon dioxide).

# Specifications:

- Output Purity: 99.99999%
- Output Efficiency (total): <100 ppb
- Output Efficiency (hydrocarbons): <20 ppb (as methane)
- Output Efficiency (moisture): <10 ppb
- Output Efficiency (oxygen): <2 ppb
- Output Efficiency (carbon monoxide): <20 ppb
- Output Efficiency (carbon dioxide): <1ppm
- · Capacity (hydrocarbons): 30 g (as methane)
- Capacity (moisture): 46 g
- · Capacity (oxygen): 1200mg
- Max. Flow Rate: 8 L/min.
- Max. Pressure: 500 psi
- Max. Temp.: 100 ℃

Dimensions for both purifiers / in. (41..91 cm) long  $\times$  2 5/16 in. (6.3 cm) diameter



Description	Cat. No.	Qty
stainless steel fittings, <sup>1</sup> / <sub>8</sub> in. O.D. Swagelok (nuts and ferrules included)	27600-U	1 ea
stainless steel fittings, ¼ in. Swagelok (nuts and ferrules included)	27601-U	1 ea

