

Activated Hydrocarbon Traps for Agilent Gas Chromatographs

Part number 5060-9096

General information

This trap, packed with activated charcoal, should be used mainly for removing the trace amounts of hydrocarbons and organics from carrier gases. Water and other contaminants, which cannot be trapped by the activated charcoal, may be removed by a moisture trap. Ideally, a moisture trap and an activated hydrocarbon trap should be used in series, with the gas flowing through the activated hydrocarbon trap before the moisture trap.

Fitted with 1/8-inch od Swagelok fittings, the trap is installed directly between the gas line regulator and the gas inlet on the back of the instrument. Since the trap body is constructed of stainless steel, it can be conditioned or regenerated at high temperatures without removing the packing. Its unique S-shape also makes it compact enough to fit in most GC ovens for conditioning and regenerating.

Once in operation, the gas flow pressure drop across the trap is minimal.

Conditioning

To condition the trap (Figure 1), remove the caps (A) on both ends. Attach one end of the trap to a gas supply with suitable tubing. If the trap has been used, attach the gas supply to the downstream end to reverse the flow direction through the trap.

Use clean helium, nitrogen, or another suitable inert purge gas, usually the same gas that will be used with the trap. Air or oxygen should not be used.

Since the injection port fitting in some GC ovens is recessed, disconnect the trap and pull it around to the front of the GC. Insert the trap, with the copper tubing still connected to the gas supply, into the oven and close the door securely. Using dry helium or nitrogen, set the flow rate to 60 mL/min and the oven temperature to 350 °C, then condition the trap overnight.

WARNING: Remove all columns from the GC oven before conditioning the trap.

If hydrogen is used as the purge gas, the exhaust gas should be vented outside the GC oven in a suitable manner.

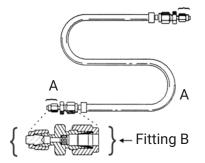


Figure 1. Conditioning the trap.

Reduce the flow to 10 to 30 mL/min and cool the oven. When the oven is cool, disconnect the trap and immediately install it in the desired flow line, or seal the trap with the proper tubing plug and cap.

Installation

Connect trap in-line between gas source supply and gas inlet on instrument, with suitable tubing and adapter fittings.

Regeneration

Trap regeneration should be done on a periodic basis, for example, after using one to four cylinders of gas depending on the grade or purity of the gas. The same method and parameters are used for the initial conditioning.

After approximately 10 to 12 trap regenerations, replace the trap.

Table 1. Ordering information.

Item	Part Number
Conditioned Moisture Trap	5060-9084
Conditioned Hydrocarbon Trap	5060-9096

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DE64895031

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