

LCQ Classic Gas Requirements

Gas requirements are as follows:

Helium for MS detector damping gas:

- Ultra-high purity (99.999%) with less than 1.0 ppm each of water, oxygen, and total hydrocarbons.
- One 245 ft³ tank with Matheson regulator #3104C series or equivalent tank and regulator

Note. If you intend to use helium for sparging your LC solvents, a second helium tank is required for that purpose.

Nitrogen for API sheath gas and auxiliary gas:

- High-purity (99% pure) nitrogen gas supply. One supply to be located at the rear of the instrument and connected by a 6 mm (0.25 in.) flexible gas line
- Nitrogen gas usage can be quite high. Therefore, it is recommended that nitrogen be supplied from one of two sources as follows: a large, sealed, thermally insulated cylinder containing liquid nitrogen, from which the nitrogen is boiled off from the liquid or the largest nitrogen cylinder that can be practically used. The minimum pressure required is 100 psi

Gas lines for helium should be copper or stainless steel. All gas lines should be free of oil and preferably flame dried. The gas lines should run to the back or side of the LCQ system. Gas tanks should be stored where they cannot damage cables or gas lines, and they should be secured in accordance with standard safety practices.

Helium gas supply lines should terminate with 1/8-in., female, Swagelok®-type connectors, and nitrogen supply lines should terminate with 1/4-in., female, Swagelok®-type connectors.

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