

GC ANALYSIS FOR METHYL CHLORIDE
on CH8 & CH9

SCOPE: The following procedure will instruct you how to analyze Methyl Chloride samples. By learning this procedure you should be able to physically demonstrate the correct way to analyze Methyl Chloride by using a Gas Chromatograph.

SAFETY:

THERMAL: The sample you are analyzing is Methyl Chloride, it has a boiling point of -24 degrees F. When handling this sample the possibility of frost bite could occur if contact with the skin were made.

CHEMICAL: Remember you are working with chemicals that may cause skin and eye irritation. Safety glasses should be adequate for eye protection.

MECHANICAL: Use caution when working with pressure cylinders.

EQUIPMENT:

- 1) GC #1 (PERKIN ELMER SIGMA 2000)
- 2) Methyl Chloride Sample (in a cylinder)
- 3) Sample Work Sheet With Bar Code.
- 4) Supplied Nitrogen 125 psi

PROCEDURE:

- 1) Mount sample cylinder on the left side of the GC.
- 2) After the cylinder has been mounted connect the Nitrogen to the other end of the cylinder. This will be used to pressure the cylinder to 125 psi.
- 3) Once the HP A/D box has been setup close the needle valve just below the mounted cylinder.
- 4) Next open the Nitrogen supply to the top of the cylinder.
- 5) Open the top valve on the cylinder and then the bottom valve.
- 6) Next open the needle valve just enough to purge the sample loop free of air bubbles. This can be better accomplished if you open then close, open and close the needle valve two or three times at about 10 second intervals.
- 7) Now that the bubbles are out and the sample loop is filled, block in the needle valve. With the needle valve blocked, PRESS the start button on the bottom front panel of GC#1.
- 8) Once the start button is pressed close the bottom valve on the cylinder, then the top valve.

- 9) You will hear the air valve switch twice, once to inject and next to rest the valve to the fill position. After the second switch you may open the needle valve to vent any remaining liquid from the sample loop.
- 10) Now block in the nitrogen supply and wait at least 1 minute before removing the cylinder.
- 11) Your analysis should take about 20 minutes to run on GC #1. The results will report out on the lab printer and a GC plot will follow with each report.

METHYLCL.PRO
01/91 tjb