

## C<sub>1</sub> and C<sub>2</sub> Halocarbons (Freons®)

**Column:** GS-GasPro  
**60 m x 0.32 mm I.D.**  
**J&W P/N:** 113-4362  
**Carrier:** Helium at 35 cm/sec  
 constant velocity  
**Oven:** 40°C for 2 minutes,  
 40-120 at 10°/min,  
 120° for 3 min,  
 120-200 at 10°/min  
**Injector:** 250°C, Splitless,  
 0.20 min purge activation time,  
 1.0 µL of 100 ppm mixture  
 of Accustandard M-REF &  
 M-REF-X in methanol  
**Detector:** Shimadzu QP5050A MSD,  
 280°C, full scan 45-180 amu

| Peak # | Condition                              | Freon #             |
|--------|--|---------------------|
| 1.     | Chlorotrifluoromethane                 | 13 (peak not shown) |
| 2.     | Trifluoromethane                       | 23                  |
| 3.     | Bromotrifluoromethane                  | 13B1                |
| 4.     | Chloropentafluoroethane                | 115                 |
| 5.     | Pentafluoroethane                      | 125                 |
| 6.     | 1,1,1-Trifluoroethane                  | 143a                |
| 7.     | Dichlorodifluoromethane                | 12                  |
| 8.     | Chlorodifluoromethane                  | 22                  |
| 9.     | 1,1,1,2-Tetrafluoroethane              | 134a                |
| 10.    | Chloromethane                          | 40                  |
| 11.    | 1,1,2,2-Tetrafluoroethane              | 134                 |
| 12.    | Bromochlorodifluoromethane             | 12B1                |
| 13.    | 1,1-Difluoroethane                     | 152a                |
| 14.    | 1,2-Dichloro-1,1,2,2-tetrafluoroethane | 114                 |
| 15.    | 2-Chloro-1,1,1,2-tetrafluoroethane     | 124                 |
| 16.    | 1-Chloro-1,1-difluoroethane            | 142b                |
| 17.    | Dichlorofluoromethane                  | 21                  |
| 18.    | Trichlorofluoromethane                 | 11                  |
| 19.    | Chloroethane                           | 160                 |
| 20.    | Dichloromethane                        |                     |
| 21.    | 1,1-Dichloro-1-fluoroethane            | 141b                |
| 22.    | 2,2-Dichloro-1,1,1-trifluoroethane     | 123                 |
| 23.    | 1,1,2-Trichloro-1,2,2-trifluoroethane  | 113                 |
| 24.    | 1,2-Dibromo-1,1,2,2-tetrafluoroethane  | 114B2               |

