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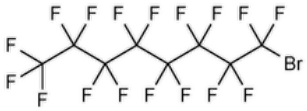
Perflubron



C_8BrF_{17} 498.96

Octane, 1-bromo-1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-heptadecafluoro-.

1-Bromoheptadecafluorooctane.

Perfluorooctyl bromide CAS RN®: 423-55-2; UNII: Q1D0Q7R4D9.

» Perflubron contains not less than 98.0 and not more than 100.0 percent of C_8BrF_{17}.

Packaging and storage—Preserve in tight, light-resistant containers.

USP Reference standards ⟨11⟩—

USP Perflubron RS

Identification—

A: Record the IR absorption spectrum, using a gas cell. The spectrum so obtained exhibits maxima only at the same wavelengths as that of a similar preparation of USP Perflubron RS.

B: The retention time of the major peak in the chromatogram of the test specimen, obtained as directed in the *Assay*, corresponds to that of USP Perflubron RS, similarly chromatographed.

Specific gravity ⟨841⟩: between 1.922 and 1.925.

Chromatographic purity—

Chromatographic system (see *Chromatography* ⟨621⟩)—The gas chromatograph is equipped with a split injection port with a split ratio, range of 1:45 to 1:100, a flame-ionization detector, and a 0.25-mm × 60-m column coated with a 1-µm film of phase G2. Hydrogen is used as the carrier gas. The chromatograph is programmed to maintain the column temperature at 35° for 7 minutes, then to increase the temperature at a rate of 20° per minute to 185°, and held at this temperature for 4.5 minutes. The injection port is maintained between 200° and 220° and the detector at a temperature above 200°.

Procedure—Inject a volume (about 0.2 µL) of Perflubron into the chromatograph, record the chromatogram, and measure the areas of the peak responses. Calculate the percentage of each individual impurity in the portion of Perflubron taken by the formula:

$$100(r_i/r_s)$$

in which r_i is the peak response of the individual impurity, and r_s is the sum of the responses of all the peaks: not more than 0.20% of any individual impurity is found.

Nonvolatile residue—Transfer 75 g of Perflubron to a tared evaporating dish, evaporate to dryness, and dry the residue at 105° for 1 hour: the weight of the residue so obtained does not exceed 1.5 mg (0.002%).

Assay—

Chromatographic system—Proceed as directed in the test for *Chromatographic purity*.

Procedure—Inject about 0.2 µL of Perflubron into the chromatograph, record the chromatograms, and measure the areas of the peak responses. Calculate the percentage of C_8BrF_{17} in the portion of Perflubron taken by the formula:

$$100(r_U/r_s)$$

in which r_U is the peak response for perflubron obtained from the test specimen, and r_s is the sum of the responses of all of the peaks.

Topic/Question	Contact	Expert Committee
PERFLUBRON	Documentary Standards Support	SM42020 Small Molecules 4
REFERENCE STANDARD SUPPORT	RS Technical Services RSTECH@usp.org	SM42020 Small Molecules 4

Chromatographic Database Information: Chromatographic Database

Most Recently Appeared In:
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