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SOME PROPERTIES OF ALKYL 2-CHLORO-1,1,2-TRIFLUOROETHYL ETHERS

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A series of alkyl 2-chloro-1,1,2-trifluoroethyl ethers was prepared by the addition of alkanols to chlorotrifluoroethylene.

R-OH + CF₂=CFC1 -----> R-O-CF₂-CHC1F

R = methyl, ethyl, isopropyl, t-butyl, cyclohexyl, pinakolyl, menthyl

Thermal stability of alkyl 2-chloro-l,l,2-trifluoroethyl ethers was investigated on glc columns at 80 - 200 $^{\circ}$ C and on heating in solvents of various polarity.

Products of thermal decomposition of t-butyl 2-chloro-1,1,2--trifluoroethyl ether in benzene, benzylalcohol and decahydronaphthalene were isolated and identified. In strongly polar solvents (N,N-dimethylaniline, pyridine, dimethylsulfoxide or N,N-dimethylformamide) the decomposition of the t-butyl 2-chloro--1,1,2-trifluoroethyl ether did not proceed.