REACTIONS OF NUCLEOPHILES WITH TRICHLOROTRIFLUOROETHANE

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Condensation of 1,1,2-trichlorotrifluoroethane with potassium thiophenoxide occurs in DMF or DMSO to give ary1-2,2dichloro-1,1,2-trifluoroethy1sulfides :

Ars + CF₂ClCFCl₂ ---- ArSCF₂CFCl₂

The same condensation with phenoxide gives two products :

 $Aro^{-} + CF_2C1CFC1_2 \rightarrow AroCF_2CFC1_2 + AroCF_2CFC1H$

The formation of ary1-2,2-dichloro-1,1,2-trifluoroethylsulfides or ethers can be explained by a chain carbanionic mechanism.