PREPARATION AND REACTIONS OF TRIFLUOROMETHYL-SULFUR OXIDE

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In the reaction of CF_3SOC1 with NaN_3 or (CH_3)_3SiN_3, the azide, CF_3SON_4 (I) is formed:

$$CF_{3}S_{C1}^{\emptyset} + NaN_{3} = CF_{3}S_{N}^{\emptyset}$$

Upon gentle warming to room temperature, (I) decomposes under evolution of $\rm N_2$ to give CF_3SON (II),

$$CF_3 S \leqslant_{N_3}^0 = CF_3 S \leqslant_{N_3}^0 + N_2$$

which however oligomerizes instantaneously. The monomeric nitride(II) can be captured in the presence of reactive halogene compounds to yield N-substituted trifluoromethan-imino sulfonyl chlorides. With CH₃CN, a six-membered ring compound is obtained:

