

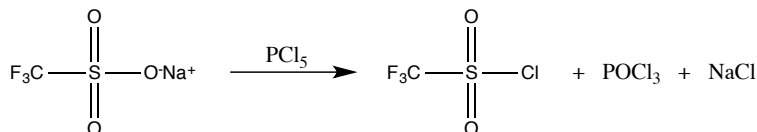
Chem 345 – Organic Reactions Chapter 20

Prepared by José Laboy, MS

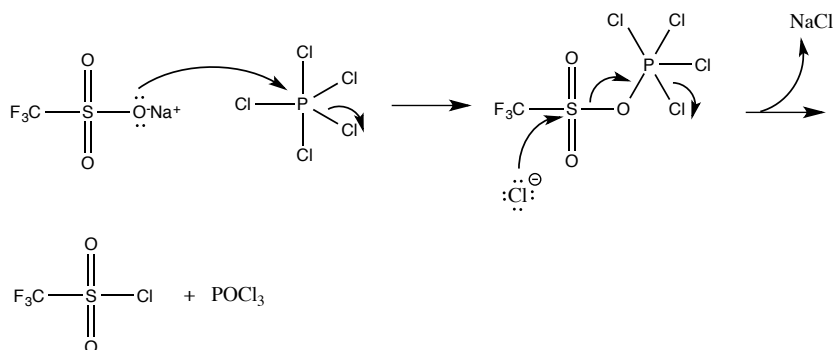
<http://www.chem.wisc.edu/areas/clc> (Resource page)

Sulfonyl Chlorides from Sulfonic Acids

Reaction:



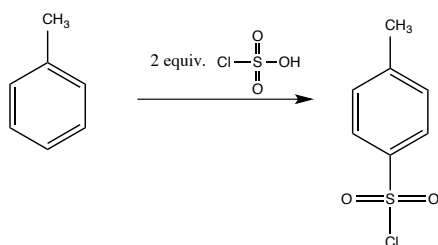
Mechanism:



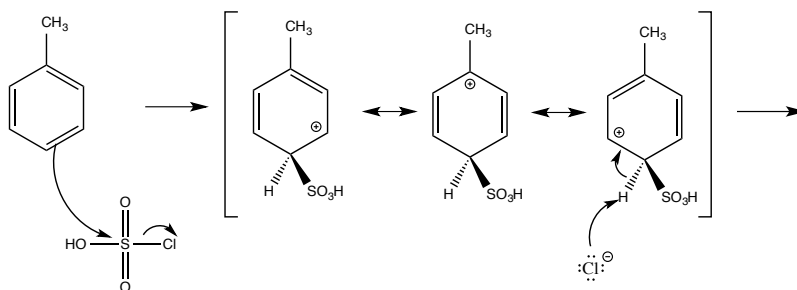
Sulfonyl chlorides are valuable for the synthesis of sulfonates, which are very good leaving groups. These can be used in S_N2 reactions.

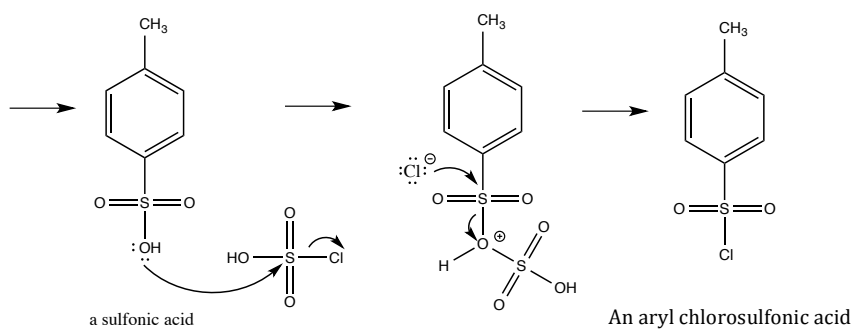
Aromatic sulfonyl chlorides can be synthesized by the reaction of 2 equivalents of a sulfonyl chloride. The reaction forms a sulfonic acid first then the second equivalent will produce the sulfonyl chloride.

Reaction:



Mechanism





The mechanism for the production of the sulfonic acid resembles an EAS reaction.