Trifluoromethanesulfonic acid

Product Number  T 1394
Storage Temperature  -0 °C

**Product Description**
Molecular Formula: CHF₃O₃S
Molecular Weight: 150.1
CAS Number: 1493-13-6
Density: 1.696 g/ml
Synonyms: triflic acid

Trifluoromethanesulfonic acid is a widely used reagent in organic chemistry. Its enhanced thermal stability and resistance to oxidation and reduction make it especially useful as a reactant and solvent. Large scale applications include use in the plastics industry as an oligomerization-polymerization catalyst and in the production of conducting polymers, and the manufacture of herbicides, growth regulators, and vitamins.

Numerous publications have described the use of triflic acid in the preparation of various classes of compounds. These include pyrrolidines, piperidines, γ-lactams, phorbol ABC ring analogues, β-amino aromatic ketones by intermolecular Friedel-Crafts acylation, chiral Lewis superacids, and thioesters.1,2,3,4,5

A protocol has been reported for the transfer of p-methoxybenzyl ethers from alcohols to sulfonamides in the presence of catalytic triflic acid.6 An analysis of the rearrangement of pivalaldehyde to methyl isopropyl ketone in the presence of triflic acid has been published.7

Triflic acid is used as a deglycosylating agent for the analysis of glycoproteins.8,9,10

**Preparation Instructions**
This product is miscible in water (0.1 ml/l, v/v), yielding a clear, colorless solution.

**References**