



>>Entry Name: Dibutylbis(trifluoromethanesulfonato-*O,O'*)tin, 12Cl

CAS Registry Number: 38438-11-8

$(\text{H}_3\text{CCH}_2\text{CH}_2\text{CH}_2)_2\text{Sn}(\text{OSO}_2\text{CF}_3)_2$

Molecular Formula: $\text{C}_{10}\text{H}_{18}\text{F}_6\text{O}_6\text{S}_2\text{Sn}$

Molecular Weight: 531.081

Accurate Mass: 529.947098

Percentage Composition: C 22.62%; H 3.42%; F 21.46%; O 18.08%; S 12.08%; Sn 22.35%

Source/Synthesis: Synth. from $\text{Bu}_2\text{SnCl}_2 + \text{F}_3\text{CSO}_3\text{H}$

Use/Importance: Catalyst for aldol condensation of aldehydes, but not ketones, with silyl enol ethers at -78° ; also for Mukaiyama reaction of dimethyl acetals of ketones, but not aldehydes, with silyl enol ethers; catalyses Michael addn. of silyl enol ethers to enones

Physical Description: Cryst.

Melting Point: Mp 250° (dec.)

References:

Tan, T.H. *et al.*, *Can. J. Chem.*, 1972, **50**, 1843, (*synth, anal, Sn-119 Mössbauer*)

Sato, T. *et al.*, *J.A.C.S.*, 1990, **112**, 901, (*use, aldol reaction*)

Sato, T. *et al.*, *Tet. Lett.*, 1990, **31**, 1581, (*use, Michael addn*)