



>>Entry Name: Lithium trifluoroacetate

Synonym(s): Lithium trifluoroethanoate. Trifluoroacetic acid, lithium salt, 8Cl. Trifluoroethanoic acid, lithium salt

CAS Registry Number: 2923-17-3

LiOCCF₃

Molecular Formula: C₂F₃LiO₂

Molecular Weight: 119.957

Accurate Mass: 120.001042

Percentage Composition: C 20.03%; F 47.51%; Li 5.79%; O 26.68%

Source/Synthesis: Synth. from aq. Li₂CO₃ + F₃CCOOH. H₂O is removed initially by heating *in vacuo* using a steam bath and finally by azeotropic distillation using excess C₆H₆

Use/Importance: Commercially available. When mixed with poly(ethylene oxide) it forms thin polymer electrolyte films which exhibit ionic conductivity

Physical Description: White powder

Hazard & Toxicity: Irritant

Aldrich: 28767-9

References:

Jones, R.G. *et al.*, *J.A.C.S.*, 1973, **95**, 2465, (*synth, pmr*)

Regis, A. *et al.*, *Chem. Phys. Lett.*, 1975, **32**, 462, (*ir in soln*)

Faniran, J.A. *et al.*, *Spectrochim. Acta A*, 1976, **32**, 1351, (*ir*)

White, E.V., *Org. Mass Spectrom.*, 1978, **13**, 495, (*ms*)

Tissot, P. *et al.*, *Thermochim. Acta*, 1986, **106**, 377, (*thermal dec*)