



>>Entry Name: Copper(II) tetrafluoroborate

Synonym(s): Cupric fluoborate

CAS Registry Number: 38465-60-0

Related CAS Registry Numbers(s): 16455-64-4

Extra CAS Registry Numbers(s): 14735-84-3

$\text{Cu}(\text{BF}_4)_2$

Molecular Formula: B_2CuF_8

Molecular Weight: 237.155

Accurate Mass: 236.945432

Percentage Composition: B 9.12%; Cu 26.80%; F 64.09%

Source/Synthesis: Prepd. from CuO or CuCO_3 + aq. HBF_4

Use/Importance: Commercially available. Lewis acid capable of promoting Diels Alder reactions; promotes dec. of diazo compds., functions as an oxidising agent; reacts with siloxycyclopropanes to generate β -acylalkylcopper(II) species; in combination with hydrosilanes, is a *syn*-selective reducing agent of alkynic sulfones

Physical Description: Deliquescent, blue cryst. + $6\text{H}_2\text{O}$

Solubility: Sol. H_2O , EtOH, TFH, MeOH; insol. Et_2O

References:

Funk, H. *et al.*, *Z. Anorg. Allg. Chem.*, 1926, **159**, 121, (*synth*)

West, C.D. *et al.*, *Z. Kristallogr.*, 1935, **91**, 480, (*cryst struct*)

Encyclopaedia of Reagents for Organic Synthesis, (ed. Paquette, L.A.), Wiley, 1995, **2**, 1367, (*use*)