>>**Entry Name: Tetrakis(acetonitrile)copper(1+),** 9Cl

CAS Registry Number: 16685-09-9
$(H_3CCN)_4Cu^{(+)}$

Molecular Formula: $C_8H_{12}CuN_4^{(+)}$
Molecular Weight: 227.756
Accurate Mass: 227.045794
Percentage Composition: C 42.19%; H 5.31%; Cu 27.90%; N 24.60%
Use/Importance: Used for synth. of many Cu^I complexes, including heterometallics, and for ketone oxygenation

>>**Derivative:** Perchlorate

CAS Registry Number: 14057-91-1
Physical Description: Cryst.
Melting Point: Mp 164-166°
Solubility: Sol. MeCN
Hazard & Toxicity: Potentially explosive

>>**Derivative:** Hexafluorophosphate

CAS Registry Number: 64443-05-6
Molecular Formula: $C_8H_{12}CuF_6N_4P$
Molecular Weight: 372.72
Accurate Mass: 372.009974
Percentage Composition: C 25.78%; H 3.25%; Cu 17.05%; F 30.58%; N 15.03%; P 8.31%
Use/Importance: Used for synth. of Cu(I) complexes in nonaqueous media
Physical Description: Cryst. (MeCN/Et_2O at –20°)
Melting Point: Mp 160 dec.°
Solubility: Mod. sol. polar org. solvs.
Other Data: Air-sensitive as solid
Aldrich: 34627-6

>>**Derivative:** Tetrafluoroborate

CAS Registry Number: 15418-29-8
Source/Synthesis: Synth. from Cu_2O + HBF_4 in MeCN in an inert atm.
Physical Description: Cryst. (CH_2Cl_2/diisopropyl ether)
Melting Point: Mp 159-161°

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