



>>Entry Name: Tetrakis(cyano-C)mercurate(2-)

Synonym(s): Tetracyanomercurate(2-)

CAS Registry Number: 19426-03-0

$[\text{Hg}(\text{CN})_4]^{2(-)}$

Molecular Formula: $\text{C}_4\text{HgN}_4^{2(-)}$

Molecular Weight: 304.661

Accurate Mass: 305.982913

Percentage Composition: C 15.77%; Hg 65.84%; N 18.39%

>>Derivative: Di-K salt

CAS Registry Number: 591-89-9

Physical Description: Cryst.

Other Data: Low temp. form is ferroelastic with trigonal symmetry; high temp. form: spinel like

>>Derivative: Bis[potassium(dibenzo-18-crown-6)] complex

CAS Registry Number: 112144-19-1

Physical Description: Cryst. + $1\text{H}_2\text{O}$

>>Derivative: Di-Rb salt

CAS Registry Number: 15634-25-0

Physical Description: Cryst.

Solubility: Low temp.-form is ferroelastic; transforms to cubic spinel-like at 273K

>>Derivative: Ba salt, tetrakis-Py complex

CAS Registry Number: 94553-89-6

Physical Description: Cryst.

Other Data: Struct. contains 3D network of tetrahedral $\text{Hg}(\text{CN})_4$ units; bridging CN. Ba coord. to 4 NC + 4 Py

>>Derivative: Bis(diphenyliodonium salt)

CAS Registry Number: 73012-26-7

Physical Description: Cryst.

>>Derivative: Bis- Ph_4P salt

CAS Registry Number: 100765-78-4

Physical Description: Cryst.

>>Derivative: Bis- Ph_4As salt

CAS Registry Number: 123118-46-7

Physical Description: Cryst.

>>Derivative: Li, Et_4N salt

CAS Registry Number: 106633-51-6

Physical Description: Cryst.

>>Derivative: Cu(I), Et_4N salt

CAS Registry Number: 106633-53-8

Source/Synthesis: Synth. from $[\text{Et}_4\text{N}]\text{CN}/\text{CuCN}/\text{Hg}(\text{CN})_2$

Physical Description: Cryst.; exists in high- and low-temp. modifications

Other Data: In both modifications, $\text{Cu}(\text{NC})_4$ and $\text{Hg}(\text{CN})_4$ tetrahedra are connected by Cu-NC-Hg bridges in 3D- cristobalite type struct. in which NEt_4 cations are located

References: