



>>Entry Name: Bis(cyano-C)aurate(1-), 10Cl, 9Cl

Synonym(s): Dicyanoaurate(1-)

CAS Registry Number: 14950-87-9

[Au(CN)₂]⁽⁻⁾

Molecular Formula: C₂AuN₂⁽⁻⁾

Molecular Weight: 249.002

Accurate Mass: 248.972691

Percentage Composition: C 9.65%; Au 79.10%; N 11.25%

Other Data: Many salts known

>>Derivative: Na salt

CAS Registry Number: 15280-09-8

Molecular Formula: C₂AuN₂Na

Molecular Weight: 271.992

Accurate Mass: 271.962458

Percentage Composition: C 8.83%; Au 72.42%; N 10.30%; Na 8.45%

Source/Synthesis: Synth. by condensation of NH₃ onto AuCN/NaCN mixt.

Physical Description: Solid

Solubility: Sol. NH₃, H₂O

Aldrich: 46474-0

>>Derivative: K salt

Synonym(s): Gold potassium cyanide

CAS Registry Number: 13967-50-5

Molecular Formula: C₂AuKN₂

Molecular Weight: 288.1

Accurate Mass: 287.936398

Percentage Composition: C 8.34%; Au 68.37%; K 13.57%; N 9.72%

Source/Synthesis: Synth. from KCN and Me₂SAuCl in aq. Me₂CO

Use/Importance: Used in gold electroplating solns.

Physical Description: Air- and light-stable colourless cryst. (H₂O)

Solubility: Sol. H₂O; spar. sol. EtOH; insol. Et₂O, Me₂CO

Aldrich: 37986-7

Fluka: 60210

Sigma: P1054

>>Derivative: Tetrabutylammonium salt

CAS Registry Number: 42523-89-7

Molecular Formula: C₁₈H₃₆AuN₃

Molecular Weight: 491.469

Percentage Composition: C 43.99%; H 7.38%; Au 40.08%; N 8.55%

Physical Description: Solid

Solubility: Sol. CH₂Cl₂

>>Derivative: Bis(triphenylphosphine)gold(1+) salt

Molecular Formula: C₃₈H₃₀Au₂N₂P₂

Molecular Weight: 970.549

Percentage Composition: C 47.03%; H 3.12%; Au 40.59%; N 2.89%; P 6.38%

Source/Synthesis: Synth. by disproportionation of Ph₃PAuCN

Physical Description: Solid

Other Data: PMe₃, PEt₃, PPrⁱ₃ and PCy₃ analogues also known

>>Derivative: H compd.

CAS Registry Number: 60635-20-3

Molecular Formula: C₂HAuN₂

Molecular Weight: 250.01

Accurate Mass: 249.980516

Percentage Composition: C 9.61%; H 0.40%; Au 78.78%; N 11.20%

Physical Description: Colourless cryst.

Other Data: Dec. rapidly to AuCN at 120°

>>Derivative: Tl salt