



>>Entry Name: Hexakis(cyano-C)cobaltate(3-), 9Cl

Synonym(s): Hexacyanocobaltate(III)(3-)

CAS Registry Number: 14897-04-2

Related CAS Registry Numbers(s): 50725-64-9

$[\text{Co}(\text{CN})_6]^{3(-)}$

Molecular Formula: $\text{C}_6\text{CoN}_6^{3(-)}$

Molecular Weight: 215.039

Accurate Mass: 214.951642

Percentage Composition: C 33.51%; Co 27.41%; N 39.08%

>>Derivative: Tri-K salt

Synonym(s): Potassium hexacyanocobaltate(III)

CAS Registry Number: 13963-58-1

Molecular Formula: $\text{C}_6\text{CoK}_3\text{N}_6$

Molecular Weight: 332.334

Accurate Mass: 331.842763

Percentage Composition: C 21.68%; Co 17.73%; K 35.29%; N 25.29%

Source/Synthesis: Synth. from KCN and $\text{Co}(\text{CN})_2$, followed by oxidn. of the cyanocobaltate(II)

Use/Importance: Commercially available

Physical Description: Yellow cryst. (H_2O)

Solubility: Sol. H_2O ; v. sl. sol. liq. NH_3

Aldrich: 21864-2

Fluka: 60270

>>Derivative: Zn salt (2:3)

CAS Registry Number: 14049-79-7

Molecular Formula: $\text{C}_{12}\text{Co}_2\text{N}_{12}\text{Zn}_3$

Molecular Weight: 626.249

Accurate Mass: 621.690719

Percentage Composition: C 23.02%; Co 18.82%; N 26.84%; Zn 31.32%

Source/Synthesis: Synth. from the K salt + ZnCl_2 in H_2O

Use/Importance: Useful as a polym. catalyst and as molecular sieves

Physical Description: Solid

>>Derivative: Tri-Ag salt

CAS Registry Number: 14883-06-8

Molecular Formula: $\text{C}_6\text{Ag}_3\text{CoN}_6$

Molecular Weight: 538.644

Accurate Mass: 535.666918

Percentage Composition: C 13.38%; Ag 60.08%; Co 10.94%; N 15.60%

Physical Description: White powder

>>Derivative: Tri-H compd.

CAS Registry Number: 19528-17-7

Molecular Formula: $\text{C}_6\text{H}_3\text{CoN}_6$

Molecular Weight: 218.063

Accurate Mass: 217.975117

Percentage Composition: C 33.05%; H 1.39%; Co 27.03%; N 38.54%

Source/Synthesis: Obt. by metathesis of tri-K salt

Physical Description: White powder + $\frac{1}{2} \text{H}_2\text{O}$

>>Derivative: Cs, bis- Me_4N salt

CAS Registry Number: 75952-53-3

Molecular Formula: $\text{C}_{14}\text{H}_{24}\text{CoCsN}_8$

Molecular Weight: 496.236

Accurate Mass: 496.051019

Percentage Composition: C 33.89%; H 4.87%; Co 11.88%; Cs 26.78%; N 22.58%

Physical Description: Bright yellow cryst.

>>Derivative: Tris- Me_3Pb salt