



>>Entry Name: Hexachloroplatinate(IV)(2-), 8Cl

CAS Registry Number: 16871-54-8

Related CAS Registry Numbers(s): 19583-77-8

$[\text{PtCl}_6]^{2(-)} (O_h)$

Molecular Formula:  $\text{Cl}_6\text{Pt}^{2(-)}$

Molecular Weight: 407.796

Accurate Mass: 404.777878

Percentage Composition: Cl 52.16%; Pt 47.84%

Source/Synthesis: Synth. from Pt +  $\text{Cl}_2$  + HCl, followed by treatment with chloride of required cation

Use/Importance: Numerous kinetic studies of substitutions, often light-assisted

Other Data: Aq. solns. slowly photoreduce with substitution. Many salts known

>>Derivative: Di-H compd.

>>Derivative: Di-Na salt

Synonym(s): Sodium hexachloroplatinate(IV)

CAS Registry Number: 16923-58-3

Extra CAS Registry Numbers(s): 1307-82-0

Molecular Formula:  $\text{Cl}_6\text{Na}_2\text{Pt}$

Molecular Weight: 453.776

Accurate Mass: 450.757412

Percentage Composition: Cl 46.88%; Na 10.13%; Pt 42.99%

Physical Description: Yellow-green solid

Solubility: Sol.  $\text{H}_2\text{O}$ , alcohols, DMF

Other Data: Forms orange hexahydrate

>>Derivative: Di-Na salt, hexahydrate

Molecular Formula:  $\text{Cl}_6\text{H}_{12}\text{Na}_2\text{O}_6\text{Pt}$

Molecular Weight: 561.867

Accurate Mass: 558.820802

Percentage Composition: Cl 37.86%; H 2.15%; Na 8.18%; O 17.09%; Pt 34.72%

Physical Description: Orange-red triclinic cryst.

Melting Point: Mp 100° (-6 $\text{H}_2\text{O}$ )

Solubility: Sol.  $\text{H}_2\text{O}$ ; mod. sol. EtOH, MeOH

>>Derivative: Di-K salt

Synonym(s): Potassium hexachloroplatinate(IV)

CAS Registry Number: 16921-30-5

Molecular Formula:  $\text{Cl}_6\text{K}_2\text{Pt}$

Molecular Weight: 485.993

Accurate Mass: 482.705292

Percentage Composition: Cl 43.77%; K 16.09%; Pt 40.14%

Physical Description: Yellow octahedra

Aldrich: 37985-9

Fluka: 60260

Sigma: P8018

>>Derivative: Di-Rb salt

CAS Registry Number: 17363-00-7

Molecular Formula:  $\text{Cl}_6\text{PtRb}_2$

Molecular Weight: 578.732

Accurate Mass: 574.601466

Percentage Composition: Cl 36.76%; Pt 33.71%; Rb 29.54%

Physical Description: Yellow cubic cryst.

Solubility: Spar. sol.  $\text{H}_2\text{O}$ ; insol. EtOH

Other Data: Dec. on heating