



>>Entry Name: Hexachloroosmate(IV)(2-)

CAS Registry Number: 16871-52-6

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

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

Molecular Weight: 402.916

Accurate Mass: 401.774579

Percentage Composition: Cl 52.79%; Os 47.21%

Use/Importance: Starting material for many osmium compds.

Other Data: Many salts known

>>Derivative: Di-Na salt

CAS Registry Number: 1307-81-9

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

Molecular Weight: 448.896

Accurate Mass: 447.754113

Percentage Composition: Cl 47.39%; Na 10.24%; Os 42.37%

Use/Importance: Commercially available as hydrate

>>Derivative: Di-Na salt, dihydrate

Molecular Formula: $\text{Cl}_6\text{H}_4\text{Na}_2\text{O}_2\text{Os}$

Molecular Weight: 484.926

Accurate Mass: 483.775243

Percentage Composition: Cl 43.87%; H 0.83%; Na 9.48%; O 6.60%; Os 39.22%

Physical Description: Orange-red prisms

Solubility: Sol. EtOH, H_2O

>>Derivative: Di-K salt

CAS Registry Number: 16871-60-6

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

Molecular Weight: 481.113

Accurate Mass: 479.701993

Percentage Composition: Cl 44.21%; K 16.25%; Os 39.53%

Source/Synthesis: Synth. from OsO_4 , ascorbic acid + HCl, followed by filtration and addition of KCl soln. to filtrate

Use/Importance: Commercially available

Physical Description: Brick-red cryst.

Melting Point: Mp 600 dec.°

Aldrich: 45907-0

>>Derivative: Di-Rb salt

CAS Registry Number: 19276-51-8

Molecular Formula: Cl_6OsRb_2

Molecular Weight: 573.852

Accurate Mass: 571.598167

Percentage Composition: Cl 37.07%; Os 33.14%; Rb 29.79%

>>Derivative: Di-Cs salt

CAS Registry Number: 19276-52-9

Molecular Formula: $\text{Cl}_6\text{Cs}_2\text{Os}$

Molecular Weight: 668.727

Accurate Mass: 667.585437

Percentage Composition: Cl 31.81%; Cs 39.75%; Os 28.44%

Source/Synthesis: Synth. by metathesis of Na salt

>>Derivative: Di-H compd.

CAS Registry Number: 27057-71-2

Molecular Formula: $\text{Cl}_6\text{H}_2\text{Os}$

Molecular Weight: 404.932

Accurate Mass: 403.790229

Percentage Composition: Cl 52.53%; H 0.50%; Os 46.97%

Use/Importance: Catalyst

Aldrich: 20908-2