



>>Entry Name: Hexachlororhodate(*III*)(3–)

CAS Registry Number: 21412-00-0

Related CAS Registry Numbers(s): 15077-95-9

$[\text{RhCl}_6]^{3(-)} (O_h)$

Molecular Formula: $\text{Cl}_6\text{Rh}^{3(-)}$

Molecular Weight: 315.622

Accurate Mass: 312.718612

Percentage Composition: Cl 67.40%; Rh 32.60%

>>Derivative: Tri-Na salt

Synonym(s): Sodium hexachlororhodate (Na_3RhCl_6)

CAS Registry Number: 14972-70-4

Extra CAS Registry Numbers(s): 14972-02-2

Molecular Formula: $\text{Cl}_6\text{Na}_3\text{Rh}$

Molecular Weight: 384.591

Accurate Mass: 381.687913

Percentage Composition: Cl 55.31%; Na 17.93%; Rh 26.76%

Physical Description: Pink solid + $2\text{H}_2\text{O}$

Solubility: Sol. H_2O

Aldrich: 20628-8

>>Derivative: Tri-Na salt, dodecahydrate

Molecular Formula: $\text{Cl}_6\text{H}_{24}\text{Na}_3\text{O}_{12}\text{Rh}$

Molecular Weight: 600.774

Accurate Mass: 597.814693

Percentage Composition: Cl 35.41%; H 4.03%; Na 11.48%; O 31.96%; Rh 17.13%

Physical Description: Dark red cryst.

Melting Point: Mp 120° ($-12\text{H}_2\text{O}$)

Solubility: V. sol. H_2O

>>Derivative: Tri-K salt

Synonym(s): Potassium hexachlororhodate (K_3RhCl_6)

CAS Registry Number: 13845-07-3

Molecular Formula: $\text{Cl}_6\text{K}_3\text{Rh}$

Molecular Weight: 432.917

Accurate Mass: 429.609733

Percentage Composition: Cl 49.14%; K 27.09%; Rh 23.77%

Physical Description: Burgundy-coloured cryst. + $1\text{H}_2\text{O}$

Solubility: Sol. H_2O

Aldrich: 39849-7

>>Derivative: Tri- NH_4 salt

CAS Registry Number: 15336-18-2

Extra CAS Registry Numbers(s): 81044-09-9

Molecular Formula: $\text{Cl}_6\text{H}_{12}\text{N}_3\text{Rh}$

Molecular Weight: 369.737

Accurate Mass: 366.821734

Percentage Composition: Cl 57.53%; H 3.27%; N 11.36%; Rh 27.83%

Use/Importance: Commercially available

Solubility: Sol. H_2O

Aldrich: 20423-4

>>Derivative: Tri- NH_4 salt, monohydrate

Molecular Formula: $\text{Cl}_6\text{H}_{14}\text{N}_3\text{ORh}$

Molecular Weight: 387.752

Accurate Mass: 384.832299

Percentage Composition: Cl 54.86%; H 3.64%; N 10.84%; O 4.13%; Rh 26.54%

Physical Description: Dark red needles

Solubility: Sol. H_2O , EtOH

Other Data: Loses H_2O at 140°

References: