



>>Entry Name: Rubidium chlorate(V) (RbClO₃)

Synonym(s): Chloric acid, rubidium salt, 8Cl

CAS Registry Number: 13446-71-4

RbClO₃

Molecular Formula: ClO₃Rb

Molecular Weight: 168.919

Accurate Mass: 167.865391

Percentage Composition: Cl 20.99%; O 28.41%; Rb 50.60%

Source/Synthesis: Prepd. by slow neutralisation of Rb₂CO₃ using HClO₃ in aq. soln.

Use/Importance: Used to prepare high purity Rb salts (RbCl, RbNO₃, Rb₂SO₄, RbOAc)

Physical Description: Colourless hexagonal cryst.

Solubility: V. sol. H₂O (5.0 g per 100 cm³ at 19°; 63 g per 100 cm³ at 100°)

Other Data: ΔH_f° -403 kJ mol⁻¹; ΔG_f° -300 kJmol⁻¹; S° 152 J K⁻¹ mol⁻¹

Hazard & Toxicity: Oxidiser

References:

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Sahini, V.E. *et al.*, *An. Univ. Bucuresti, Ser. Stiint. Nat.*, 1961, **10**, 43; *CA*, 1963, **58**, 7517d, (*ir*)

Shklovskaya, R.M. *et al.*, *Metody Poluch. Khim. Reakt. Prep.*, 1967, **16**, 77; *CA*, 1968, **69**, 48786, (*synth*)

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