



>>Entry Name: Silver(I) perchlorate (AgClO₄)

Synonym(s): Silver perchlorate

CAS Registry Number: 7783-93-9

AgClO₄

Molecular Formula: AgClO₄

Molecular Weight: 207.319

Accurate Mass: 205.853604

Percentage Composition: Ag 52.03%; Cl 17.10%; O 30.87%

Use/Importance: Used in the explosives industry

Physical Description: Deliquescent cryst.

Solubility: Freely sol. H₂O; sol. C₆H₆, Py, toluene

Other Data: Dec. at 486°

Hazard & Toxicity: Irritating to skin, mucous membranes. Forms many explosive solvates

Aldrich: 44923-7

>>Derivative: Hydrate

Synonym(s): Silver perchlorate hydrate

CAS Registry Number: 14242-05-8

Use/Importance: Commercially available

Other Data: Contains variable amts. H₂O

Aldrich: 37977-8

Fluka: 85270

Sigma: S2635

References:

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Smith, G.F. *et al.*, *J.A.C.S.*, 1937, **59**, 1889, (*synth, props*)

Brinkley, S.R., *J.A.C.S.*, 1940, **62**, 3524, (*synth, solvates, haz*)

Markowitz, M.M. *et al.*, *J. Inorg. Nucl. Chem.*, 1960, **16**, 159, (*synth*)

Brauer, G., *Handbuch Prap. Anorg. Chem.*, 3rd edn., Ferdinand Enke Verlag, 1975, **2**, 997, (*synth*)

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