



>>Entry Name: Silver(I) chlorate(V) (AgClO₃)

Synonym(s): Argentous chlorate

CAS Registry Number: 7783-92-8

AgClO₃

Molecular Formula: AgClO₃

Molecular Weight: 191.319

Accurate Mass: 189.858689

Percentage Composition: Ag 56.38%; Cl 18.53%; O 25.09%

Use/Importance: Oxidising agent for some organic syntheses

Physical Description: White, tetragonal cryst. Darkens upon exp. to light due to slow dec.

Melting Point: Mp 230°

Solubility: Spar. sol. H₂O; sl. sol. alcohols

Other Data: Dec. at 270° forming silver chloride and oxygen

References:

Hendrixson, W.S., *J.A.C.S.*, 1903, **25**, 637, (*synth*)

Braun, G., *J.A.C.S.*, 1929, **51**, 228, (*use*)

Natay-Szabo, S. *et al.*, *Z. Kristallogr.*, 1942, **104**, 28, (*cryst struct, synth*)

Inorg. Synth., 1946, **2**, 4, (*synth, props*)

Merck Index, 11th edn., 1989, No. 8454

Lewis, R.J., *Sax's Dangerous Properties of Industrial Materials*, 8th edn., Van Nostrand Reinhold, 1992, SDN399