



>>Entry Name: Silver(I) carbonate (Ag₂CO₃)

CAS Registry Number: 534-16-7

Related CAS Registry Numbers(s): 85323-65-5

Ag₂CO₃

Molecular Formula: CAg₂O₃

Molecular Weight: 275.746

Accurate Mass: 273.794929

Percentage Composition: C 4.36%; Ag 78.24%; O 17.41%

Physical Description: Light yellow monoclinic powder. Darkens on drying and exp. to light

Solubility: Spar. sol. H₂O. Readily sol. dil. aq. nitric acid, ammonia, alkali cyanides

Other Data: Dec. at about 220° into Ag₂O and CO₂, and at higher temps. into metallic silver. ΔH_f° -508.1 kJ mol⁻¹, ΔG_f° -439.6 kJ mol⁻¹

Aldrich: 17964-7

Fluka: 85150

Sigma: S2898

References:

Aldrich Library of FT-IR Spectra, 1st edn., 1985, **2**, 1231D, (*ir*)

Donohue, J. *et al.*, *J.A.C.S.*, 1944, **66**, 2472, (*theory*)

Inorg. Synth., 1957, **5**, 19, (*synth*)

U.S. Pat., 1962, 3038803, (*use*)

Ross, S.D. *et al.*, *Spectrochim. Acta*, 1964, **20**, 781, (*ir*)

Masse, R. *et al.*, *Acta Cryst. B*, 1979, **35**, 1428, (*cryst struct*)

Merck Index, 11th edn., 1989, No. 8453