



>>Entry Name: Copper carbonate hydroxide (Cu₂(CO₃)(OH)₂)

Synonym(s): Basic copper carbonate‡. Cupric subcarbonate. Bremen blue. Bremen green

CAS Registry Number: 12069-69-1

CuCO₃·Cu(OH)₂

Molecular Formula: CH₂Cu₂O₅

Molecular Weight: 221.116

Accurate Mass: 219.869421

Percentage Composition: C 5.43%; H 0.91%; Cu 57.48%; O 36.18%

Source/Synthesis: Synth. by adding CuSO₄ soln. to Na₂CO₃ soln.

Use/Importance: Used in treatment of Cu deficiency, as fungicide, in pyrotechnics and as a pigment

Physical Description: Dark green cryst. or blue amorphous powder

Solubility: Insol. H₂O, alcohols; sol. dil. acids, NH₃

Aldrich: 20789-6

Fluka: 61167

Sigma: C1771

>>Variant: Mineral-form

Synonym(s): Malachite

CAS Registry Number: 1319-53-5

Molecular Formula: CH₂Cu₂O₅

Molecular Weight: 221.116

Accurate Mass: 219.869421

Percentage Composition: C 5.43%; H 0.91%; Cu 57.48%; O 36.18%

Source/Synthesis: Widespread in the oxidn. zone of Cu deposits, closely associated with azurite and other secondary minerals

Physical Description: Bright green cryst.

References:

Palache, C. *et al.*, *Dana's System of Mineralogy*, 7th edn., Wiley, 1951, **2**, 252, (*rev*)

Org. Synth., *Coll. Vol.*, **3**, 1955, 460, (*use*)

Suesse, P., *Naturwissenschaften*, 1966, **53**, 80; *CA*, **64**, 15111h, (*cryst struct*)

Goldsmith, J.A. *et al.*, *Spectrochim. Acta*, 1966, **22**, 1069, (*uv-vis*)

Druzhinin, I.G. *et al.*, *Zh. Neorg. Khim.*, 1966, **11**, 2374; *CA*, 1967, **66**, 6080u, (*phase props*)

Schmuckler, J.S. *et al.*, *Chemistry*, 1975, **48**, 19, (*synth*)

Zigon, F. *et al.*, *Z. Kristallogr., Kristallgeom., Kristallphys., Kristallchem.*, 1977, **145**, 412, (*cryst struct*)

Merck Index, 11th edn., 1989, 2634, (*synth, use*)

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