



>>Entry Name: Copper hydroxide nitrate ($\text{Cu}_2(\text{OH})_3\text{NO}_3$)

Synonym(s): Dicopper(II) trihydroxy nitrate

CAS Registry Number: 12158-75-7

$\text{Cu}_2(\text{OH})_3(\text{NO}_3)$

Molecular Formula: $\text{Cu}_2\text{H}_3\text{NO}_6$

Molecular Weight: 240.119

Accurate Mass: 238.875235

Percentage Composition: Cu 52.93%; H 1.26%; N 5.83%; O 39.98%

General Statement: 2 different modifications:- Orthorhombic- more stable at low temps. (< 140°). Monoclinic more stable at higher temps. (140-340°)

Physical Description: Blue-green cryst.

>>Variant: Mineral-form

Synonym(s): Gerhardite

Molecular Formula: $\text{Cu}_2\text{H}_3\text{NO}_6$

Molecular Weight: 240.119

Accurate Mass: 238.875235

Percentage Composition: Cu 52.93%; H 1.26%; N 5.83%; O 39.98%

General Statement: Orthorhombic

Source/Synthesis: Occurs as secondary mineral in Arizona and Zaire

Physical Description: Emerald to dark green transparent cryst.

References:

Oswald, H.R., *Z. Kristallogr., Kristallgeom., Kristallphys., Kristallchem.*, 1961, **116**, 210, (*cryst struct*)

Bovio, B. *et al.*, *J. Crystallogr. Spectrosc. Res.*, 1982, **12**, 507

Effenberger, H., *Z. Kristallogr., Kristallgeom., Kristallphys., Kristallchem.*, 1983, **165**, 127