

Cadwaladerite**AlCl(OH)₂·4H₂O**

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Crystal Data: Amorphous. *Point Group:* n.d. Granular and in small masses, embedded in halite.**Physical Properties:** *Fracture:* Conchoidal. Hardness = n.d. D(meas.) = 1.66
D(calc.) = n.d. Weakly hygroscopic.**Optical Properties:** Transparent to translucent. *Color:* Lemon-yellow. *Luster:* Vitreous.
Optical Class: Isotropic. *n* = 1.513, variable.**Cell Data:** *Space Group:* n.d. *Z* = n.d.**X-ray Powder Pattern:** n.d.

Chemistry:	(1)	(2)
Al ₂ O ₃	29.34	30.25
CaO	1.60	
Cl	21.51	21.04
H ₂ O ⁺	26.27	53.45
H ₂ O ⁻	26.81	
-O = Cl ₂	5.53	4.74
Total	[100.00]	100.00

(1) Cerro Pintados, Chile; recalculated to 100% after deduction of Na₂O 1.85% as NaCl, K₂O 0.90% as KCl, CaO 0.47% as CaCl₂ and with SO₃ 0.82% as CaSO₄·2H₂O. (2) AlCl(OH)₂·4H₂O.**Occurrence:** In a sulfate deposit, embedded in halite.**Association:** Halite, gypsum.**Distribution:** On mine dumps at Cerro Pintados, 80 km southeast of Iquique, Tarapacá, Chile.**Name:** For Charles Meigs Biddle Cadwalader, formerly President of the Academy of Natural Sciences, Philadelphia, Pennsylvania, USA.**Type Material:** Harvard University, Cambridge, Massachusetts, USA, 134143.**References:** (1) Palache, C., H. Berman, and C. Frondel (1951) Dana's system of mineralogy, (7th edition), v. II, 77.