

CdCl[OH]

hP6(186) $P6_3mc - b^2a$ **Cd(OH)Cl** [2], Strukturbericht notation E0₃

Structural features: Close-packed OH and Cl layers in hc stacking; Cd in octahedral voids. Layer structure with sandwiches consisting of three sublayers (OH-Cd-Cl). Cd(Cl₃[OH]₃) octahedra share edges to form infinite slabs. Ordering variant of 4H-CdI₂.

Cudennec Y. et al. (2000) [1]

CdClHO

 $a = 0.36648$, $c = 1.02305$ nm, $c/a = 2.792$, $V = 0.1190$ nm³, $Z = 2$

site	Wyck.	sym.	<i>x</i>	<i>y</i>	<i>z</i>	occ.	atomic environment
Cl1	2 <i>b</i>	3 <i>m.</i>	$\frac{1}{3}$	$\frac{2}{3}$	0.2459		non-coplanar triangle Cd ₃
Cd2	2 <i>b</i>	3 <i>m.</i>	$\frac{1}{3}$	$\frac{2}{3}$	0.58129		octahedron O ₃ Cl ₃
O3	2 <i>a</i>	3 <i>m.</i>	0	0	0.0		non-coplanar triangle Cd ₃
H4	2 <i>a</i>	3 <i>m.</i>	0	0	0.4092		

Transformation from published data: -*x*, -*y*, -*z*; origin shift 0 0 0.9108

Experimental: single crystal, diffractometer, X-rays, R = 0.041

Remarks: Hydrogen atoms are not taken into consideration for Pearson symbol, Wyckoff sequence and atomic environments.

References: [1] Cudennec Y., Riou A., G rault Y., Lecerf A. (2000), J. Solid State Chem. 151, 308-312.
[2] Hoard J.L., Grenko J.D. (1934), Z. Kristallogr. 87, 110-119.