$LiAl_2Cl[OH]_6[H_2O]$	*hP*78	(176) $P6_3/m$ – ih^{10}fb

$[LiAl_2(OH)_6]Cl{\cdot}H_2O$ [1]
Structural features: Infinite slabs of edge-linked $Al(OH)_6$ and $Li(OH)_6$ octahedra alternate with layers containing a disordered arrangement of Cl and H_2O.

Besserguenev A.V. et al. (1997) [1]
$Al_2ClH_{8.19}LiO_{7.09}$
a = 0.50963, c = 1.52919 nm, c/a = 3.001, V = 0.3440 nm^3, Z = 2

site	Wyck.	sym.	x	y	z	occ.	atomic environment
O1	12*i*	1	0.0016	0.3576	0.0631		non-coplanar triangle Al_2Li
Cl2	6*h*	*m*..	0.0	0.35	$^1/_4$	0.067	
O3	6*h*	*m*..	0.04	0.411	$^1/_4$	0.073	
O4	6*h*	*m*..	0.118	0.065	$^1/_4$	0.073	
O5	6*h*	*m*..	0.125	0.388	$^1/_4$	0.073	
Cl6	6*h*	*m*..	0.162	0.242	$^1/_4$	0.067	
Cl7	6*h*	*m*..	0.191	0.561	$^1/_4$	0.067	
Cl8	6*h*	*m*..	0.24	0.16	$^1/_4$	0.067	
O9	6*h*	*m*..	0.313	0.242	$^1/_4$	0.073	
O10	6*h*	*m*..	0.505	0.342	$^1/_4$	0.073	
Cl11	6*h*	*m*..	0.561	0.191	$^1/_4$	0.067	
Al12	4*f*	3..	$^1/_3$	$^2/_3$	0.0		octahedron O_6
Li13	2*b*	-3..	0	0	0		octahedron O_6
H14	12*i*	1	0.342	0.035	0.129		
H15	6*h*	*m*..	0.088	0.238	$^1/_4$	0.073	
H16	6*h*	*m*..	0.1	0.143	$^1/_4$	0.073	
H17	6*h*	*m*..	0.109	0.12	$^1/_4$	0.073	
H18	6*h*	*m*..	0.12	0.61	$^1/_4$	0.073	
H19	6*h*	*m*..	0.227	0.23	$^1/_4$	0.073	
H20	6*h*	*m*..	0.24	0.37	$^1/_4$	0.073	
H21	6*h*	*m*..	0.245	0.235	$^1/_4$	0.073	
H22	6*h*	*m*..	0.274	0.574	$^1/_4$	0.073	
H23	6*h*	*m*..	0.36	0.49	$^1/_4$	0.073	
H24	6*h*	*m*..	0.54	0.189	$^1/_4$	0.073	

Transformation from published data: origin shift 0 0 $^1/_2$
Experimental: powder, diffractometer, neutrons, time-of-flight, wR_p = 0.013

Remarks: Short interatomic distances for partly occupied site(s). Hydrogen atoms are not taken into consideration for Pearson symbol, Wyckoff sequence and atomic environments.

References: [1] Besserguenev A.V., Fogg A.M., Francis R.J., Price S.J., O'Hare D., Isupov V.P., Tolochko B.P. (1997), Chem. Mater. 9, 241-247.