BCl_3	*hP*8	(176) $P6_3/m$ – hc

BCl_3 [2]; BI_3 [3]
Structural features: BCl_3 trigonal units in a Mg-type (h.c.p.) arrangement.

Atoji M., Lipscomb W.N. (1957) [1]
BCl_3
$a = 0.608$, $c = 0.655$ nm, $c/a = 1.077$, $V = 0.2097$ nm^3, $Z = 2$

site	Wyck.	sym.	*x*	*y*	*z*	occ.	atomic environment
Cl1	6*h*	*m*..	0.0455	0.3763	$^1/_4$		single atom B
B2	2*c*	-6..	$^1/_3$	$^2/_3$	$^1/_4$		coplanar triangle Cl_3

Experimental: single crystal, photographs, X-rays, R = 0.140, T = 108 K

Remarks: The description in space group (173) $P6_3$ in [1] does not take into consideration all symmetry elements of the proposed structure (space group (176) $P6_3/m$ had been rejected based on a comparison of intensities). BI_3 was reported in space group (176) $P6_3/m$ [3].

References: [1] Atoji M., Lipscomb W.N. (1957), J. Chem. Phys. 27, 195. [2] Rollier M.A., Riva A. (1947), Gazz. Chim. Ital. 77, 361-366. [3] Ring M.A., Donnay J.D.H., Koski W.S. (1962), Inorg. Chem. 1, 109-111.