$Ba_3Zn_{0.5}MnCl_3F_6$	*hP*28	(176) $P6_3/m$ – ih^2cb

$Ba_6Mn_2ZnCl_6F_{12}$ [1]
Structural features: MnF_6 trigonal prisms and $ZnCl_6$ octahedra (partial occupancy of infinite columns of face-linked octahedra). Filled-up derivative of $Pr_3WO_6Cl_3$.

Darriet J. et al. (1992) [1]
$Ba_3Cl_3F_6MnZn_{0.50}$
a = 1.0081, c = 0.58476 nm, c/a = 0.580, V = 0.5147 nm^3, Z = 2

site	Wyck.	sym.	*x*	*y*	*z*	occ.	atomic environment
F1	12*i*	1	0.1615	0.5197	0.0147		single atom Mn
Cl2	6*h*	*m*..	0.1766	0.2266	$^1/_4$		non-colinear Zn_2
Ba3	6*h*	*m*..	0.4035	0.0915	$^1/_4$		10-vertex polyhedron F_6Cl_4
Mn4	2*c*	-6..	$^1/_3$	$^2/_3$	$^1/_4$		trigonal prism F_6
Zn5	2*b*	-3..	0	0	0	0.5	octahedron Cl_6

Experimental: single crystal, diffractometer, X-rays, R = 0.022

References: [1] Darriet J., Ducau M., Feist M., Tressaud A. (1992), Eur. J. Solid State Inorg. Chem. 29, 435-443.