CRYSTAL STRUCTURE OF BIS[2-((E)-(p-TOLYLIMINO) METHYL)-6-BROMO-4-CHLOROPHENOL|COPPER(II)

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A new complex CuL_2 1 [HL = 2-((E)-(p-tolylimino) methyl)-6-bromo-4-chlorophenol] is obtained and characterized using the single crystal X-ray diffraction analysis. The crystal belongs to the monoclinic system, $P2_1/c$ space group, with a=13.3203(13) Å, b=12.3052(11) Å, c=17.8664(17) Å, $\beta=105.3420(10)^\circ$, V=2824.1(5) Å³, Z=4, $D_c=1.672$ g/cm³, $R_1=0.0686$. The geometry around copper(II) is intermediate between square planar and tetrahedral. The units of the complex are linked via weak intermolecular Br...Br contracts, leading to the formation of one-dimension (1D) chains along the b axis; the multipoint Cu...Cl intermolecular interactions extend the 1D chain into a 2D layer.

Keywords: copper(II) complexes, single crystal X-ray analysis.