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{ 6,6'-Dieth-oxy-2,2'-[2,2-dimethyl-propane-1, 3-diylbis(nitrilo-methyl-idyne)]diphenolato} (2-eth-oxy-6-formyl-phenolato) cobalt(III)-ethanol-water (1/1/1)

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Abstract

The asymmetric unit of the title compound, [Co(C₂₃H₂₈N₂O₄)(C₉H₉O₃)·C₂H₅OH·H₂O], comprises one complex mol-ecule, a water mol-ecule of crystallization and an ethanol mol-ecule of crystallization, which is disordered over two positions with a ratio of refined site occupancies of 0.567 (10):0.433 (10). The Co^{III} ion is in a slightly distorted octa-hedral geometry involving an N₂O₂ atom set of the tetra-denate Schiff base ligand and two O atoms of 2-eth-oxy-6-formyl-phenolate. The H atoms of the water mol-ecule act as donors in the formation of bifurcated inter-molecular O - H... (O,O) hydrogen bonds with the O atoms of the hydr-oxy and eth-oxy groups with R¹₂(5) ring motifs, which may influence the mol-ecular conformation. The crystal structure is further stabilized by inter-molecular O - H...O and C - H...O inter-actions.

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