

# $\pi$ -halogen interaction on the crystalline packing of 1,3,5-tris(4-bromophenyl)-1,3,5-triazine-2,4,6-trione·[solvate]

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## **Abstract**

This paper discloses the synthesis of 1,3,5-Tris(4-bromophenyl)-1,3,5-triazin-2,4,6-trione·CHCl<sub>3</sub>, (Cy·CHCl<sub>3</sub>). The title compound was purified by recrystallization in chloroform. Structural and crystalline analysis reveals that Cy·CHCl<sub>3</sub> crystallizes in the trigonal space group R3c. The high symmetry is due to the finding in the crystal of the existence of a  $\pi$ -halogen intermolecular interaction between the title compound and one chloroform molecule as lattice solvent, forming a honeycomb-shape pattern when the isocyanurate core centroids are joined in the packing diagram. Also, crystal structure of Cy·CHCl<sub>3</sub> reveals that cell packing is stabilized by hydrogen bond interactions. All interactions were verifying through Hirshfeld surface analyses. © 2021

## **Author keywords**

2-D network; Chloroform molecule; Cloro interaction; High symmetry; Hirshfeld surface analyses; Non-covalent interaction