

### A new organotin(IV)-phosphoric triamide complex: [(2-Cl-C<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>NH)<sub>3</sub>P(O)]<sub>2</sub>SnMe<sub>2</sub>Cl<sub>2</sub>

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The ligands with an N—P(O) segment, especially phosphoric triamides with the oxygen-donicity property, were used for preparation of metal complexes.<sup>1,2</sup> Here, the phosphoryl donor ligand (2-Cl-C<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>NH)<sub>3</sub>P(O) was applied for the synthesis of a new organotin(IV) complex, [(2-Cl-C<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>NH)<sub>3</sub>P(O)]<sub>2</sub>SnMe<sub>2</sub>Cl<sub>2</sub>. The Sn coordination geometry is octahedral with the pairs of similar ligands in a *trans* orientation. The Sn atom is located at the inversion center, making half of the molecule related by the symmetry. In the crystal structure, adjacent molecules are linked *via* pairs of equivalent N—H...O=P hydrogen bonds into a chain running parallel to the *b* axis. From the two other N—H units in the structure of phosphoric triamide ligand, one of them takes part in an intramolecular hydrogen bond interaction with the carbon-bonded chlorine atom; whereas, the other one doesn't take part in any hydrogen bond (Fig. 1). The spectroscopic features of ligand and complex were discussed.

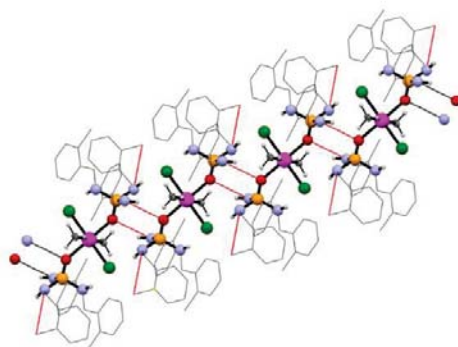


Fig. 1. A view of the crystal packing of the title complex is represented.

#### References

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- 2 A. J. Metta-Magaña, M. Pourayoubi, K. H. Pannell, M. Rostami Chaijan, H. Eshtiagh-Hosseini, *J. Mol. Struct.*, 2012, **1014**, 38–46.