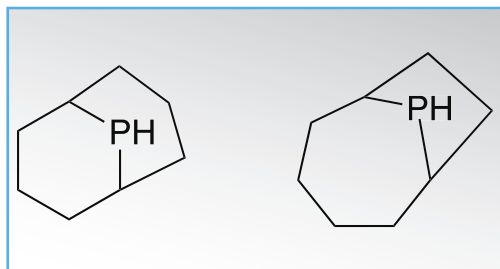


Sold in collaboration with Solvay.

## 9-Phosphabicyclononanes in toluene, mixture of isomers, CYTOP® 282T



Product Details	
Color and Form	Colorless to pale yellow liquid
Density	0.94
Flash Point	41°F
CAS No.	13887-02-0
Molecular Formula	C <sub>8</sub> H <sub>15</sub> P
Molecular Weight	142.17 g/mol

**CYTOP® 282T** is a blend of secondary alkylphosphines supplied as a 60 wt% solution in toluene. This mixture is composed of isomers A (60%) and B (40%), which are often referred to as “Phobane”, and incorporate the 8-membered ring structure as shown. This phosphine has found use in a wide variety of catalytic applications ranging from small-scale research to large-scale industrial processes. **CYTOP® 282T** is a readily available commercial product that can be supplied in kilogram to ton quantities on a regular and reliable basis.

### Technical Notes:

1. Phobane ligands can be modified by conversion of the reactive P-H bond to tailor the properties of the ligands and catalysts derived therefrom. **CYTOP® 282T** has been established as a highly effective ligand for hydroformylation processes.<sup>2</sup>
2. It has been demonstrated as an effective ligand in the production of olefins and has also been exploited in olefin metathesis chemistry.<sup>3,4</sup>
3. The “A” and “B” isomers have been separated for specific isolation when required.<sup>1</sup>
4. Furthermore, diphosphines have been built from the secondary phosphine **CYTOP® 282T** for use in catalysis.<sup>5</sup>

### References:

1. *Adv. Synth. Catal.* **2005**, 347, 1345-1348.
2. *Catalysis from A to Z: A Concise Encyclopedia*, Verlag Wiley-VCH Verlag GmbH & Co. KGA, **2012**.
3. WO 2008034894 A1, **2007**.
4. *Chem. Commun.* **2014**, 50, 2205-2207.
5. *Dalton Trans.* **2011**, 40, 7137-7146.

### Storage and Handling:

Handle in accordance with good industrial hygiene and safety practices, which include avoiding unnecessary exposure to the product and removal of material from skin, eyes and clothing. The material is pyrophoric, so appropriate fireproof PPE should be worn. For additional health, safety and handling information, refer to the product SDS (**CYTOP® 282T** is classified as a corrosive liquid). Keep containers tightly sealed, with the product under an atmosphere of inert gas, and store in a dry area at room temperature. Rotate stock using the oldest material first.

Visit [www.strem.com](http://www.strem.com) for new product information and a searchable catalog.

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