



DI- *t*-BUTYLNEOPENTYLPHOSPHINE

CAS No. not available

QS-PDS-048 Revision: 00

<b>Product Name</b>	Di- <i>tert</i> -butylneopentylphosphine, DTBNpP	
<b>Formula</b>	C <sub>13</sub> H <sub>29</sub> P	
<b>Appearance</b>	Colorless to yellow liquid.	
<b>Application</b>	DTBNpP is a <b>DEVELOPMENTAL</b> product which is used as a ligand in metal catalyzed coupling reactions (Suzuki, Heck, Sonagashira, formylations, aminations, and hydrogenations). This reagent is also used in catalytic polymerization reactions. For general reviews of phosphine applications see: 1) <i>Palladium Reagents and Catalysts</i> , John Wiley & Sons: Chichester, <b>1995</b> p.345-356. 2) <i>Advanced Synthesis &amp; Catalysis</i> , Wiley-VCH Verlag GmbH <b>2001</b> p.118-136.	

**Product Specification**

% Purity by <sup>31</sup> P NMR	<u>Guaranteed*</u> 95 min
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*\*This product can be made to agreed upon customer specifications*

**Solvent** None

<b>Physical Properties</b>	Molecular weight	216.40
	Density @20°C	>1.0 estimated
	Melting point	Not determined to date
	Percent volatile	0%
	Pyrophoricity	Pyrophoric

**Solubility** Insoluble in water. Soluble in most organic solvents.

**Thermal Stability** This material is thermally stable up to at least 180°C and can be stored at ambient temperature indefinitely, if stored properly.



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**Toxicity/Safety Data** Corrosive to eyes (may cause blindness), skin, nose, throat and stomach. May be harmful if swallowed, inhaled, or absorbed through skin.

*ADDITIONAL INFORMATION ON SAFETY IS CONTAINED IN THE OPTIMA NEW PRODUCT DATA SHEET (NPDS) AVAILABLE FOR THIS PRODUCT.*

**Handling/Storage/Disposal** Corrosive liquid. Do not get in eyes, on skin or clothing. Wash thoroughly after handling. Keep away from heat, sparks and flame. Keep container tightly closed.

**Shipping Containers** Glass bottle 125 mL, 500 mL

**Shipping Limitations** Shipments of Di-*tert*-butylneopentylphosphine are described as "Pyrophoric liquid, organic, N. O. S. (*DI-T-BUTYL NEOPENTYL PHOSPHINE*) 4.2, UN2845, PGI." Shipments require a "Spontaneously Combustible" label.

Post, Parcel, Air	Forbidden	
Sea	Class 4.2	(IMODG)
Road, Rail	Class 4.2	(DOT, RID/ADR)

For shipments within Europe, labeling for supply requirements are:

F	Flammable
C	Corrosive
R&S Phrase	See Material Safety Data Sheet

Responsible Care® initiative dictates that all shipments must be transported in a DOT-approved vehicle in a responsible manner (i.e., no flat bed trucks).

**Additional Resources** Refer to the Organometallics and Reactive Specialty Organics Safe Handling Guide available on-line at [www.optimachem.com](http://www.optimachem.com).