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Catalog # 15-1019 Di-t-butylneopentylphosphonium tetrafluoroborate, min. 95%

$$\mathsf{BF}_{4} \qquad \qquad t\text{-Bu} \\ \mathsf{t}\text{-Bu} \qquad \qquad \mathsf{t}\text{-Bu} \\ \mathsf{t}\text{-Bu} \qquad \mathsf{t}\text{-H}$$

Technical Notes:

- 1. The phosphine, used in combination with a palladium source and base, produces a highly effective catalyst for the Buchwald-Hartwig amination of aryl bromides at room temperature.
- 2. Phosphine used in the palladium-catalyzed, Suzuki cross-coupling reaction.
- 3. Phosphine used in the palladium-catalyze Kumada cross-coupling reaction.

$$ArBr + Ar^{1}-NH_{2} \xrightarrow{Pd_{2}(dba)_{3}, L} \xrightarrow{H} \stackrel{H}{N} Ar^{1}$$

$$Ar^{1}Br + F \xrightarrow{Ref. (1)} -B(OH)_{2} \xrightarrow{Pd_{2}(dba)_{3}, L} \xrightarrow{Ref. (2)} -F$$

$$Ref. (1)$$

$$Ar^{1}Br + F \xrightarrow{Ref. (2)} -B(OH)_{2} \xrightarrow{Pd_{2}(dba)_{3}, L} \xrightarrow{Ref. (2)} -F$$

$$Ref. (2)$$

$$Ref. (3)$$

$$Ref. (3)$$

References:

- 1. J. Org. Chem., 2006, 71, 5117.
- 2. Organometallics, 2006, 25, 2978.
- 3. Org. Process Res. Dev., 2011, 15, 158.