Strem Chemicals, Inc.

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Catalog # 15-7888 Tris[2-(diphenylphosphino)ethyl]phosphine, 98% PP3

$$C_6H_5$$
 C_6H_5 C_6H_5 C_6H_5

Technical Notes:

- 1. Ligand used in the ruthenium-catalyzed hydrogenation of carbon dioxide facilitated by catalytic quantities of bicarbonate.
- 2. Ligand used in the selective iron-catalyzed transfer hydrogenation of terminal alkynes.
- 3. Ligand used in the selective iron-catalyzed transfer hydrogenation of nitoarenes, without base.

$$CO_2 + H_2 \xrightarrow{FeCl_2 + tripod phosphine} HCOOH$$

$$R \xrightarrow{Fe(BF_4)_2 \cdot 6H_2O} O.6 - 3 mol\% tripod phosphine (1:1)$$

$$+ 3HCOOH - 3CO_2, - 2H_2O$$

$$R \xrightarrow{Fe(BF_4)_2 \cdot 6H_2O} O.6 - 3 mol\% tripod phosphine (4 mol\%) O.6 - 3 mol\% Ref. (2)$$

$$+ 3HCOOH - 3CO_2, - 2H_2O$$

References:

- 1. Organometallics, 2013, 32, 6891.
- 2. Chem. Commun., 2012, 48, 4827.
- 3. J. Am. Chem. Soc., 2011, 133, 12875.