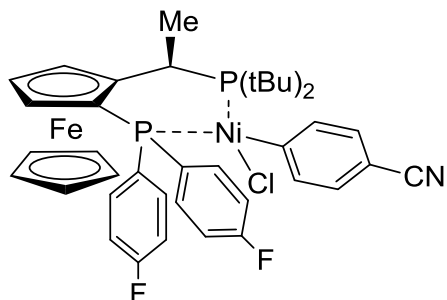


Catalog # 28-0178 Chloro(4-cyanophenyl)[(R)-1-[(S)-2-[bis(4-fluorophenyl)]phosphino]ferrocenyl]ethyl-di-tert-butylphosphine]nickel(II)



Technical Notes:

1. Versatile air-stable low cost nickel catalyst alternative to palladium for carbon-carbon and carbon-heteroatom cross-coupling reactions.
2. Used to react substituted aryl and heteroaryl halides and tosylates with ammonia to produce diverse aryl and heteroaryl amines¹
3. Used in monoarylation experiments using commercially available ammonia gas, ammonium salts or ammonia stock solutions^{2,3}
4. Catalyzes the coupling of aryl chlorides with gaseous amines in the form of their hydrochloride salts³

References:

1. *Org. Process Res. Dev.*, **2015**, *19*, 1936.
2. *Angew. Chem, Int. Ed.* **2015**, *54*, 3773.
3. *Angew. Chem, Int. Ed.* **2015**, *54*, 3768.