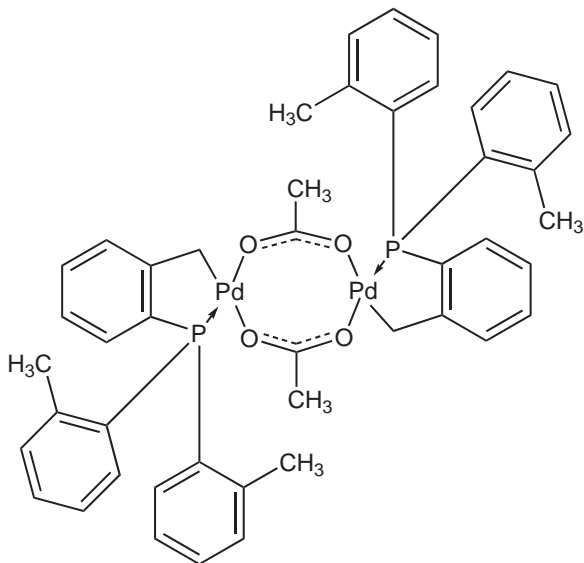


4669. Herrmann-Beller Catalyst. [172418-32-5] Bis[μ -(acetato- $\kappa O:\kappa O'$)]bis[[2-[bis(2-methylphenyl)phosphino- κP]phenyl]methyl- κC]dipalladium stereoisomer; *trans*-di(μ -acetato)bis[*o*-(di-*o*-tolylphosphino)benzyl]dipalladium(II); Herrmann's palladacycle. $C_{46}H_{46}O_4P_2Pd_2$; mol wt 937.64. C 58.92%, H 4.94%, O 6.83%, P 6.61%, Pd 22.70%. Highly efficient palladacycle catalyst; exists in a monomer/dimer equilibrium in soln. Prepn: M. Beller *et al.*, **DE 4421753** (1995 to Hoechst); *idem*, **US 5831107** (1998 to Aventis); and catalytic applications: W. A. Herrmann *et al.*, *Angew. Chem. Int. Ed.* **34**, 1844 (1995); *idem*, *Chem. Eur. J.* **3**, 1357 (1997); W. A. Herrmann *et al.*, *J. Chem. Educ.* **77**, 92 (2000). EXAFS characterization: S. G. Fiddy *et al.*, *Chem. Commun.* **2003**, 2682. Catalysis mechanism in the Heck reaction: V. P. W. Böhm, W. A. Herrmann, *Chem. Eur. J.* **7**, 4191 (2001). Review of catalytic applications: A. Speicher *et al.*, *J. Prakt. Chem.* **341**, 605-608 (1999).



Yellow crystals from toluene/hexane or CH_2Cl_2 /hexane, mp 229-231° (dec). Air stable; thermally stable; becomes catalytically active at $\sim 80^\circ$.

USE: Homogeneous catalyst in carbon-carbon bond forming reactions such as the Heck and Suzuki reactions.