Precious Metal Supported Catalysts

Catalyst Type	Support Material	Metal Loading %	Typical Applications
		PALLADIUM	
21	Calcium Carbonate	5	Selective hydrogenation e.g. alkyne to alkene in presence of a catalyst modifier (Lindlar)
24C	Alumina powder	5	Di-imine to Diamine (Dibed process)
39	Carbon powder/paste	3, 5, 10	Debenzylation, C-N and C-O clevage, Alkene hydrogenation.
50B	Alumina 2-4mm spheres	0.3, 0.5	Hydrogenation/Dehydrogenation, Gas Purification
58	Carbon powder/paste	5, 10	Hydrogenation of aromatic and aliphatic nitro groups, Reductive alkylation/amination. Hydrogenation of aromatic nitriles to 1^{o}-amines
87L	Carbon powder/paste	5, 10	Hydrogenation of alkynes and alkenes to alkanes, Aromatic nitro hydrogenation. Aromatic aldehyde and ketone hydrogenation to alcohols, Hydrogenolysis e.g. Dehalogenation, C-N & C-O cleavage, Rosenmund reduction, Rosin disproportionation, Reductive alkylation/amination, Selective oxidation.
91	Carbon powder/paste	20	Debenzylation (Pearlman's catalyst)
487	Carbon powder/paste	5, 10	As type 87L
490	Carbon powder/paste	10	Aromatic nitro group hydrogenation, Hydrogenation of alkenes to alkanes. Debenzylation
		PLATINUM	
18	Carbon powder/paste	3, 5, 10	Schiff's base and nitro hydrogenation, Aromatic ring hydrogenation, Hydrogenation of alkenes, Hydrogenation of aliphatic carbonyls to alcohols, Selective oxidation.
18 MA	Carbon powder/paste	5	Pyridine ring hydrogenation, Hydrogenation of halonitroaromatics and aliphatic nitro groups.
117	Carbon powder/paste	5, 10	Pyridine ring hydrogenation, Hydrogenation of halonitroaromatics and aliphatic nitro groups.
163	Carbon powder/paste	1	Hydrogenation of halonitroaromatics and aromatic nitro groups, *p*–aminophenol production from nitrobenzene.
		RHODIUM	
20A	Carbon powder/paste	5	Aromatic ring hydrogenation, Hydrogenation of alkenes to alkanes.
525	Alumina powder	5	Aromatic ring hydrogenation, Hydrogenation of alkenes to alkanes.
		RUTHENIUM	
19	Carbon powder/paste	5	Aromatic ring hydrogenation, Hydrogenation of aliphatic carbonyls, Sugar hydrogenation, Selective oxidation.
		MIXED METALS	
120	Carbon powder/paste	2.5%Pd, 2.5% Pt	Hydrogenation of nitro groups. Hydrogenation of alkenes.
464	Carbon powder/paste	8%Pd, 2% Pt	Selective hydrogenation of nitrate to hydroxylamine.