

Metal Catalyst List

CAS NO.	Product name	Chemical Formula	Metal / %	State	Application
Homogeneous + Chiral Catalysts (40)					
Pd	19				
7440-05-3	Palladium on carbon	Pd/C	0.1-20	Black Powder	Coupling, methylation, isomerization, dehydrogenation, debenzylation, methylation, hydrogen transfer
14694-95-2	Tetrakis(triphenylphosphine) palladium	Pd(PPh ₃) ₄	9.2	Yellow crystal or powder	Coupling, reduction, elimination, rearrangement, isomerization
13965-03-2	Dichlorotris(triphenylphosphine) palladium	PdCl ₂ (PPh ₃) ₂	15.2	Yellow powder	Cross coupling
29934-17-6	Dichlorobis(tricyclohexylphosphine)palladium	PdCl ₂ (PCy ₃) ₂	14.4	Light yellow powder	Coupling reaction involving chlorinated aromatic hydrocarbons
59831-02-6	[1,3-Bis(diphenylphosphino) propane]dichloropalladium(II)	PdCl ₂ (dppp)	18.0	Light yellow powder	coupling reaction
29964-62-3	[1,4-Bis(diphenylphosphino) butane]dichloropalladium(II)	PdCl ₂ (dppb)	17.6	Yellow powder	Cross-coupling reaction formed by C-C bond
12107-56-1	Dichloro(1,5-cyclooctadiene)palladium(II)	PdCl ₂ (COD)	37.3	Yellow powder	C-C bond and C-N bond forming reaction, Heck coupling reaction
14220-64-5	Dichlorodiamminepalladium(II)	PdCl ₂ (C ₆ H ₅ CN) ₂	27.7	Yellow powder	Suzuki、Hiyama、Heck Coupling
72287-26-4	1'1-Bis(diphenylphosphino) ferrocene palladium(II) chloride	PdCl ₂ (dppf)	14.5	Red crystal	Cross-coupling reaction
95464-05-4	1'1-Bis(diphenylphosphino)ferrocene Palladium(II) chloride dichloromethane chloride	PdCl ₂ (dppf)·CH ₂ Cl ₂	13.0	Orange-red crystal	Cross-coupling reaction
115826-95-4	Dichloro[(R)-(+)-2,2'-bis(diphenylphosphino)-1,1'-binaphthyl]palladium(II)	PdCl ₂ (R-Binap)	13.3	Orange yellow powder	Asymmetric hydrogenation
127593-28-6	Dichloro[(S)-(-)-2,2'-bis(diphenylphosphino)-1,1'-binaphthyl]palladium(II)	PdCl ₂ (S-Binap)	13.3	Orange yellow powder	Asymmetric hydrogenation
3375-31-3	Palladium(II) acetate	Pd(OAc) ₂	47.4	Brownish yellow powder	Carbonylation, oxidation and C-C bond

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14588-08-0	Acetatebis(triphenylphosphine) palladium	$\text{Pd}(\text{OAc})_2(\text{PPh}_3)_2$	14.2	Yellow powder	Coupling reaction, cyclization reaction
32005-36-0	Bis(dibenzylideneacetone) palladium	$\text{Pd}(\text{dba})_2$	18.5	Brownish black crystal	Hydrogenation, isomerization, carbonylation, oxidation, carbon-carbon bond formation
51364-51-3	Tris(dibenzylideneacetone) palladium	$\text{Pd}_2(\text{dba})_3$	23.2	Brownish black crystal	Formation of C-C and C-heteroatoms
14024-61-4	Palladium acetylacetonate	$\text{Pd}(\text{C}_5\text{H}_7\text{O}_2)_2$	34.9	Yellow powder	Used as MOCVD precursor, supported catalyst precursor
19978-61-1	[1,2-Bis(diphenylphosphino) ethane]dichloropalladium(II)	$\text{PdCl}_2(\text{dppe})$	18.4	White powder	Carbonylation and biscarbonylation between chlorinated aromatic hydrocarbons and amines
Pt	7				
7440-06-4	Platinum	Pt/C	0.1-30	Black powder	Selective reduction hydrogenation
15663-27-1	Cis-Dichlorodiammine platinum(II)	$\text{cis-Pt}(\text{NH}_3)_2 \text{Cl}_2$	65.0	Yellow microcrystalline powder	A commonly used chemotherapy drugs
12080-32-9	Dichloro(1,5-cyclooctadiene) platinum (II)	$\text{PtCl}_2(\text{COD})$	52.1	Light yellow powder	Hydrosilylation, hydrocyclization, hydroamination
15170-57-7	Bis(dibenzylideneacetone) Platinum	$\text{Pt}(\text{C}_5\text{H}_7\text{O}_2)_2$	49.6	Yellow powder	MOCVD Precursor compound
	Dichloro[(R)-(+)-2,2'-bis(diphenyl phosphino)-1,1'-binaphthyl] platinum(II)	$\text{PtCl}_2(\text{R-Binap})$	21.9	Light yellow powder	Asymmetric hydrogenation
	Dichloro[(S)-(-)-2,2'-bis(diphenylphosphino)-1,1'-binaphthyl] platinum (II)	$\text{PtCl}_2(\text{S-Binap})$	21.9	Light yellow powder	Asymmetric hydrogenation
14221-02-4	Tetrakis(triphenylphosphine) platinum	$\text{Pt}(\text{PPh}_3)_4$	15.7	Light yellow crystal	Hydrogenation, oxidation, etc.
Rh	8				
	Rhodium on carbon	Rh/C	1-30		Hydrogenation of benzene ring, etc.

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14694-95-2	Chlorotris(triphenylphosphine) rhodium	RhCl(PPh ₃) ₃	11.1	Crimson crystal	Hydrosilylation, hydroformylation, isomerization, carbonylation
13938-94-8	Carbonylchlorobis(triphenylphosphine)rhodium	RhCl(CO) (PPh ₃) ₂	14.8	Yellow crystal	Hydroformylation
17185-29-4	Carbonyl hydridotris (triphenylphosphine) rhodium	RhH(CO) (PPh ₃) ₃	11.2	Yellow crystal	Hydroformylation, hydrogenation, hydrosilation, isomerization
14874-82-9	Acetylacetonatodicarbonyl rhodium	Rh(C ₅ H ₇ O ₂) (CO) ₂	39.9	Red powder	Hydroformylation, silylation, and alkyne addition of olefins
25470-96-6	Acetylacetonatocarbonyltriphenylphosphine rhodium	Rh(C ₅ H ₇ O ₂) (CO)(PPh ₃)	20.9	Yellow crystal	Hydroformylation, hydroformylation, hydroxylation
73482-96-9	Rhodiumoctanoatedimer	[Rh(C ₁₈ H ₁₅ O ₂) ₂] ₂	26.5	Grass green powder	Cyclization reaction for Penan Mother Ring
15956-28-2	Rhodium acetate	[Rh(OAc) ₂] ₂	46.5	Green powder	Cyclopropanation of Olefins
12092-47-6	Chloro(1,5-cyclooctadiene) rhodium (I) dimer	[Rh(COD)Cl] ₂	41.7	Orange yellow crystal	Asymmetric aryl boronic acid linkage reaction
Ru	4				
	Ruthenium on carbon	Ru/C	1-20		Pyridine ring hydrogenation, ester hydrogenation, acid hydrogenation
172222-30-9	Benzylidene-bis (tricyclohexylphosphine) dichloro ruthenium	RuCl ₂ (P(C ₆ H ₁₁) ₃) ₂ CHC ₆ H ₅	12.3	Purple powder	Olefin metathesis reaction
15529-49-4	Dichlorotris(triphenylphosphine) Ruthenium	RuCl ₂ (PPh ₃) ₃	10.5	Reddish brown powder	Reduction hydrogenation of nitro, imine and ketone, selective oxidation of alcohol
52462-29-0	Di-mu-chlorobis(p-cymene) chlororuthenium(II)	[RuCl(p-cymene)] ₂	16.5	Reddish brown powder	
50982-13-3	Dichloro(1,5-cyclooctadiene) ruthenium(II) polymer	[RuCl ₂ (COD)] _n	36.1	Brown powder	
Ir	2				
12112-67-3	Dichloro(1,5-cyclooctadiene) iridium(I) dimer	[IrCl(C ₈ H ₁₂) ₂] ₂	28.6	Orange-red crystal	Catalytic generation of C-C bonds, vinyl ethers, etc.

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15629-92-2	[1,3-Bis(diphenylphosphino) propane] dichloronickel(II)	NiCl ₂ (dppp)	10.8	Reddish brown powder	coupling reaction
Chemicals (22)					
Pd	9				
7647-10-1	Palladium(II) chloride	PdCl ₂	60.0	Reddish brown powder	
13566-03-5	Palladium sulfate	PdSO ₄	52.6	Reddish	
10102-05-3	Palladium nitrate	Pd(NO ₃) ₂		Yellow brown liquid	
1314-08-5	Palladium oxide (II)	PdO	86.9	Black powder	
7790-38-7	Palladium iodide	PdI ₂	29.5	Black powder	
13782-33-7	Diamminedichloropalladium	Pd(NH ₃) ₂ Cl ₂	50.3	Yellow powder	
13933-31-8	Tetraammine Dichloropalladium (II)	Pd(NH ₃) ₄ Cl ₂	43.4	Light yellow powder	
13820-53-6	Sodium tetrachloropalladate(II)	Na ₂ PdCl ₄	36.2	Brown powder	
10025-98-6	Potassium tetrachloropalladate (II)	K ₂ PdCl ₄	32.6	Yellow brown powder	
Pt	9				
314-15-4	Platinum oxide hydrate	PtO ₂	85.9	Black powder	Adams catalyst for hydrogenation reactions
12137-21-2	Platinum oxide hydrate	PtO ₂ • H ₂ O	79.6	Black powder	
14286-02-3	Diammine platinum(II) nitrite	Pt(NH ₃) ₂ (NO ₂) ₂	60.7	White crystals	raw materials commonly used for Platinum plating
18497-13-7	Chloroplatinic acid hexahydrate	H ₂ PtCl ₆ • 6H ₂ O	37.7	Orange crystal	
16921-30-5	Potassium hexachloroplatinate (IV)	K ₂ PtCl ₆	40.1	Yellow powder	
16919-58-7	Ammonium hexachloroplatinate (IV)	(NH ₄) ₂ PtCl ₆	43.9	Light yellow powder	
13454-96-1	Platinum(IV) chloride	PtCl ₄	57.9	Reddish brown powder	
10025-65-7	Platinum(II) chloride	PtCl ₂	73.3	Light brown powder	
10025-99-7	Potassium tetrachloroplatinate (II)	K ₂ PtCl ₄	47.0	Red crystal	Important raw material for divalent platinum

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Rh	1				
20765-98-4	Rhodium(III) chloride hydrate	$\text{RhCl}_3 \cdot 3\text{H}_2\text{O}$	39.1	Black red crystalline powder	
Ru	1				
14898-67-0	Ruthenium(III) chloride hydrate	$\text{RuCl}_3 \cdot 3\text{H}_2\text{O}$	38.7	Black block crystal	
Ir	2				
16941-92-7	Chloroiridic acid	$\text{H}_2\text{IrCl}_6 \cdot 6\text{H}_2\text{O}$	37.3	Brownish black liquid	
14996-61-3	Iridium(III) chloride hydrate	$\text{IrCl}_3 \cdot 3\text{H}_2\text{O}$	38.7	Black crystalline powder	