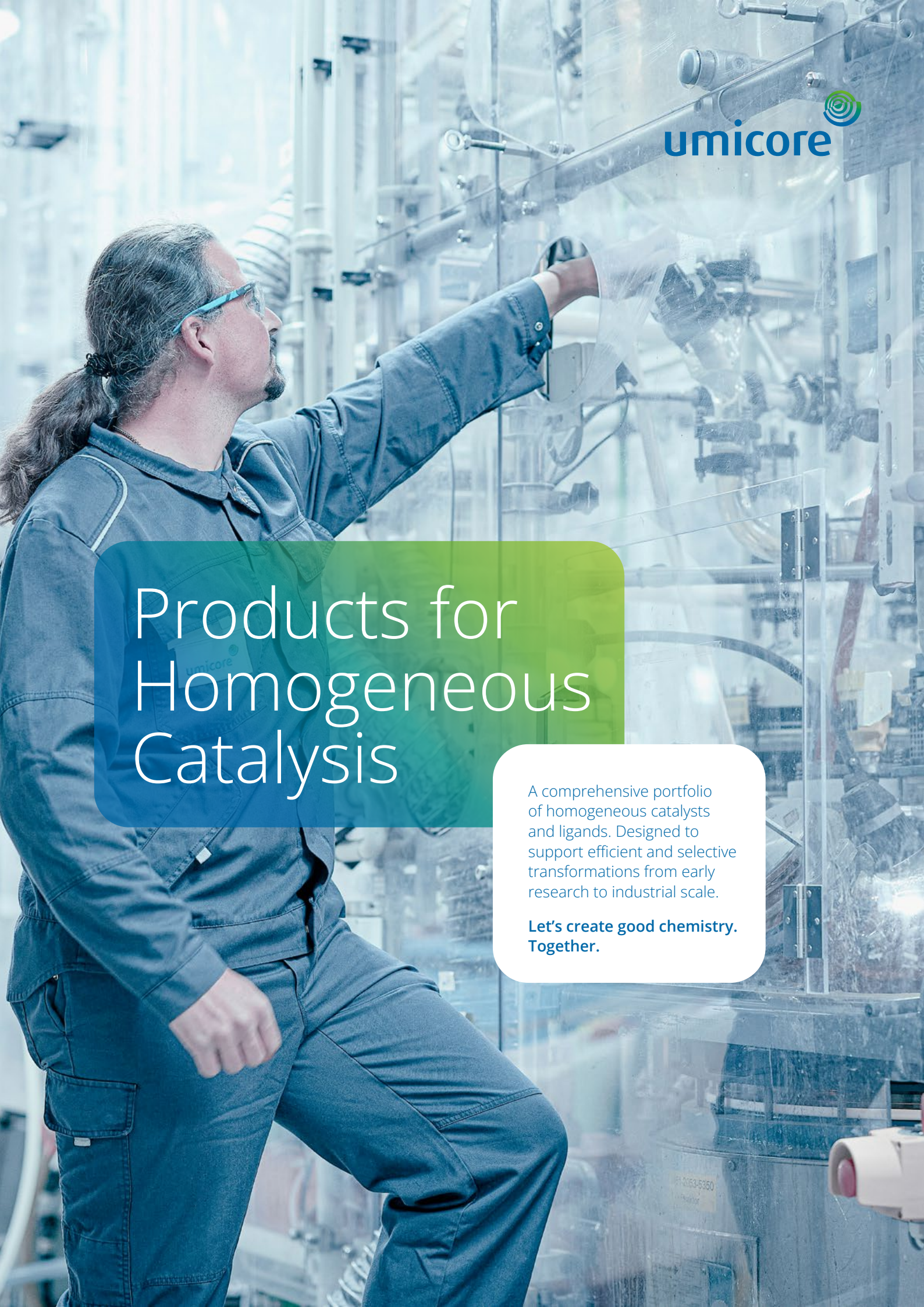

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Cross-Coupling Catalysts

Palladium Catalysts - Palladium Precursors		
TRADE NAME	EMPIRICAL FORMULA	CAS No.
	$[Pd_2(dba)_3]$ x dba	51364-51-3
	$[Pd(cod)Cl_2]$	12107-56-1
	$[Pd(acac)_2]$	14024-61-4
	$[Pd(OAc)_2]_3$	3375-31-3
	$[Pd(OOCtBu)_2]_3$	106224-36-6
	$[Pd(CH_3CN)_2Cl_2]$	14592-56-4
	$[Pd(C_6H_5CN)_2Cl_2]$	14220-64-5
	$[Pd(allyl)Cl]_2$	12012-95-2
	$[Pd(cinnamyl)Cl]_2$	12131-44-1

Cross-Coupling Catalysts

Palladium Catalysts - Palladium Phosphine Catalysts		
TRADE NAME	EMPIRICAL FORMULA	CAS No.
Fu catalyst	$[Pd(P(tBu_3))_2]$	53199-31-8
Pd-Tetrakis	$[Pd(PPh_3)_4]$	14221-01-3
Umicore CX15	$[PdBr[P(tBu_3)]]_2$	185812-86-6
Umicore CX16	$[PdI[P(tBu)_3]]_2$	166445-62-1
Umicore CX62	[Pd(dippf)(vs)tol]	1708984-17-1
Umicore CX72	$[Pd(PCy_3)_2Cl_2]$	29934-17-6
Umicore CX73	$[Pd(PPh_3)_2Cl_2]$	13965-03-2
Umicore CX74	$[Pd(P(o\text{-}tol)_3)_2Cl_2]$	40691-33-6
Umicore CX76	$[Pd(PCy_3)_2(OAc)_2]$	59840-38-9
Umicore CX81	$Pd(P(tBu)_2Ph)_2Cl_2$	34409-44-4
Umicore CX82	$[Pd(P(tBu)Cy_2)_2Cl_2]$	104889-13-6
Umicore CX84	$[Pd(amphos)_2Cl_2]$	887919-35-9
Umicore CX85	$Pd(P(tBu)Ph_2)_2Cl_2$	294673-79-3
Umicore CX91	$[Pd(dppe)Cl_2]$	19978-61-1
Umicore CX92	$[Pd(dppp)Cl_2]$	59831-02-6
Umicore CX93	$[Pd(dppf)Cl_2]$	72287-26-4
Umicore CX94	$[Pd(dppf)Cl_2] \times CH_2Cl_2$	95464-05-4
Umicore CX95	$[Pd(dppf)Cl_2] \times (CH_3)_2CO$	851232-71-8
Umicore CX96	$[Pd(dtbpf)Cl_2]$	95408-45-0
Umicore CX97	$[Pd(Xantphos)Cl_2]$	205319-10-4
Umicore CX98	$[Pd(DPEphos)Cl_2]$	205319-06-8

Cross-Coupling Catalysts

Palladium Catalysts - Palladium NHC-Catalysts		
TRADE NAME	EMPIRICAL FORMULA	CAS No.
Umicore CX21	[(IPr)Pd(allyl)Cl]	478980-03-9
Umicore CX22	[(IMes)Pd(allyl)Cl]	478980-04-0
Umicore CX23	(SIPr)Pd(allyl)Cl	478980-01-7
Umicore CX31	[(IPr)Pd(cinnamyl)Cl]	884879-23-6
Umicore CX32	(SIPr)Pd(cinnamyl)Cl	884879-24-7
Umicore CX33	[(IPr*)Pd(cinnamyl)Cl]	1380314-24-8
Umicore CX34	[(IPr*OMe)Pd(cinnamyl)Cl]	1454680-44-4
Pd(PEPPSI)(IPr)	[(IPr)Pd(3-Cl-py)Cl_2]	905459-27-0
Pd(PEPPSI)(SIPr)	[(SIPr)Pd(3-Cl-py)Cl_2]	927706-57-8
Pd(PEPPSI)(IPent)	[(IPent)Pd(3-Cl-py)Cl_2]	1158652-41-5
Umicore CX41	$[(IPr)PdCl_2]_2$	444910-17-2
Umicore CX42	$[(SIPr)PdCl_2]_2$	627878-09-5
Umicore CX51	[(IPr)Pd(vs)]	478019-87-3

Palladium Catalysts - Buchwald Palladacycles		
TRADE NAME	EMPIRICAL FORMULA	CAS No.
Umicore CX121 Pd(SPhos)G2	Pd(SPhos)[2-(2'-amino-1,1'-biphenyl)]Cl	1375325-64-6
Umicore CX122 Pd(XPhos)G2	Pd(XPhos)[2-(2'-amino-1,1'-biphenyl)]Cl	1310584-14-5
Umicore CX123 Pd(RuPhos)G2	Pd(RuPhos)[2-(2'-amino-1,1'-biphenyl)]Cl	1375325-68-0
Umicore CX131 Pd(SPhos)G3	Pd(SPhos)[2-(2'-amino-1,1'-biphenyl)](Ms)	1445085-82-4
Umicore CX132 Pd(XPhos)G3	Pd(XPhos)[2-(2'-amino-1,1'-biphenyl)](Ms)	1445085-55-1
Umicore CX133 Pd(RuPhos)G3	Pd(RuPhos)[2-(2'-amino-1,1'-biphenyl)](Ms)	1445085-77-7
Umicore CX135 Pd(tBuXPhos)G3	Pd(tBuXPhos)[2-(2'-amino-1,1'-biphenyl)](Ms)	1447963-75-8

Cross-Coupling Catalysts

Palladium Catalysts - Buchwald Palladacycles		
TRADE NAME	EMPIRICAL FORMULA	CAS No.
Umicore CX136 Pd(Xantphos)G3	Pd(Xantphos)[2-(2'-amino-1,1'-biphenyl)](Ms)	1445085-97-1
Umicore CX137 Pd(SL-J009-1)G3	Pd(SL-J009-1)G3	1702311-34-9

Palladium Catalysts - Hazari Catalysts		
TRADE NAME	EMPIRICAL FORMULA	CAS No.
Umicore CX200	$[Pd(1\text{-}tBu\text{-}Ind)Cl]_2$	1779569-01-5
Umicore CX201	$[Pd(1\text{-}tBu\text{-}Ind)(P(tBu)_3)Cl]$	1779569-15-1
Umicore CX221	Pd(SPhos)(1-tBu-Ind)Cl	1779569-07-1
Umicore CX222	Pd(XPhos)(1-tBu-Ind)Cl	1779569-06-0
Umicore CX231	[(IPr)Pd(1-tBu-Ind)Cl]	1779569-04-8
Umicore CX234	[(IPent)Pd(1-tBu-Ind)Cl]	3071159-66-2

Palladium cataCXium® A / $P(Ad)_3$ Catalysts		
TRADE NAME	EMPIRICAL FORMULA	CAS No.
Umicore CX302	Pd(cataCXium® A)(vs)	2789690-49-7
Umicore CX303	Pd(cataCXium® A)(allyl)Cl	2703751-81-7
Umicore CX304	Pd(cataCXium® A)(1-tBu-Ind)Cl	2789690-71-5
Umicore CX305 Pd(cataCXium® A)G3	Pd(cataCXium® A)G3	1651823-59-4
Umicore CX401 Pd(PAd3)G3	$[Pd(PAd_3)[2\text{-}(2'\text{-amino-}1,1'\text{-biphenyl})](Ms)]$	2252175-57-6
Umicore CX402	$Pd(PAd_3)(1\text{-}tBu\text{-}Ind)Cl$	2866370-67-2

Palladium Catalysts - YPhos Catalysts		
TRADE NAME	EMPIRICAL FORMULA	CAS No.
Umicore CX512	Pd(joYPhos)(cinnamyl)Cl	2412537-46-1

Cross-Coupling Catalysts

Palladium Catalysts - Palladium MeNAP Catalysts		
TRADE NAME	EMPIRICAL FORMULA	CAS No.
Umicore CX700	$[Pd(\alpha\text{-MeNAP})Br]_2$	2751616-98-3
Umicore CX701	$Pd(\alpha\text{-MeNAP})(P(tBu)_3)Br$	2751617-01-1
Umicore CX721	[(IPr)Pd(α-MeNAP)Br]	2751617-04-4
Umicore CX724	[(IPent)Pd(α-MeNAP)Br]	
Umicore CX737	Pd(α-MeNAP)(tBuBrettPhos)Br	3053769-87-9
Umicore CX741	Pd(α-MeNAP)(cataCXium® A)Br	2751617-11-3
Umicore CX742	$Pd(\alpha\text{-MeNAP})(PAd_3)Br$	
Umicore CX750	$[Pd(\beta\text{-MeNAP})Br]_2$	2751617-00-0

Ligands for Cross-Coupling Catalysis

YPhos Ligands		
TRADE NAME	EMPIRICAL FORMULA	CAS No.
joYPhos	$PCy_3C(Ph)PCy_2$	2271302-85-1
keYPhos	$PCy_3C(Me)PCy_2$	14185-94-5
trYPhos	$PCy_3C(Me)PtBu_2$	2271302-83-9
pinkYPhos	$PCy_3C(o\text{-Tol})PCy_2$	2495200-15-0
piperYPhos	$PPip_3C(o\text{-Tol})PCy_2$	

Monophosphine (Carrow Technology)		
TRADE NAME	EMPIRICAL FORMULA	CAS No.
	$P(Ad)_3$	897665-73-5

Chiralyst®

Iridium Catalysts		
TRADE NAME	EMPIRICAL FORMULA	CAS No.
Chiralyst® P663	$[Ir(cod)(OMe)]_2$	12148-71-9
Chiralyst® P1271	$[Ir(cod)_2]BArF$	666826-16-0

Chiralyst®

Iridium Catalysts		
TRADE NAME	EMPIRICAL FORMULA	CAS No.
Chiralyst® P663	$[Ir(cod)(OMe)]_2$	12148-71-9
Chiralyst® P1271	$[Ir(cod)_2]BArF$	666826-16-0
Chiralyst® P797	$[Ir(C_5Me_5)Cl_2]_2$	12354-84-6
Chiralyst® P1163	$[Ir(C_5Me_5)I_2]_2$	33040-12-9

Rhodium Catalysts		
TRADE NAME	EMPIRICAL FORMULA	CAS No.
Chiralyst® P310	Rh(cod)(acac)	12245-39-5
Chiralyst® P442	$[Rh(OAc)_2]_2$ x n H_2O	29998-99-0
Chiralyst® P493	$[Rh(cod)Cl]_2$	12092-47-6
Chiralyst® P407	$[Rh(cod)_2]BF_4$	35138-22-8
Chiralyst® Rh604	[Rh[(R,R)-MeDuPhos](cod)]BF_4	210057-23-1
Chiralyst® Rh605	[Rh[(S,S)-MeDuPhos](cod)]BF_4	205064-10-4
Chiralyst® Rh660	[Rh[(R,R)-EtDuPhos](cod)]BF_4	228121-39-9
Chiralyst® Rh804	[Rh[(R,R)-Ph-BPE](cod)]BF_4	528565-84-6
Chiralyst® Rh840	[Rh(SL-J002-1)(cod)]BF_4	673458-86-1
Chiralyst® P468	$[Rh(cod)_2]CF_3SO_3$	99326-34-8
Chiralyst® P1182	$[Rh(cod)_2]BArF$	404573-66-6
Chiralyst® P461	$[Rh(nbd)Cl]_2$	12257-42-0
Chiralyst® P294	Rh(nbd)(acac)	32354-50-0
Chiralyst® P374	$[Rh(nbd)_2]BF_4$	36620-11-8
Chiralyst® P618	$[Rh(C_5Me_5)Cl_2]_2$	12354-85-7
Chiralyst® Rh639	Rh[(R,R)-TsDPEN]$(C_5Me_5)Cl$	223392-99-2
Chiralyst® Rh640	Rh[(S,S)-TsDPEN]$(C_5Me_5)Cl$	219944-99-7

Chiralyst®

Ruthenium Catalysts		
TRADE NAME	EMPIRICAL FORMULA	CAS No.
Chiralyst® P280	$[Ru(cod)Cl_2]n$	50982-12-2
Chiralyst® P612	$[Ru(p\text{-}cymene)Cl_2]_2$	52462-29-0
Chiralyst® P978	$[Ru(p\text{-}cymene)I_2]_2$	90614-07-6
Chiralyst® P327	$Ru(cod)(OAc)_2$	133519-03-6
Chiralyst® Ru842	$Ru[(R)\text{-}BINAP](OAc)_2$	325146-81-4
Chiralyst® Ru843	$Ru[(S)\text{-}BINAP](OAc)_2$	261948-85-0
Chiralyst® Ru954	$Ru[(R)\text{-}Xyl\text{-}BINAP](OAc)_2$	374067-50-2
Chiralyst® Ru802	$Ru[(R)\text{-}MeO\text{-}BIPHEP](OAc)_2$	133519-04-7
Chiralyst® Ru803	$Ru[(S)\text{-}MeO\text{-}BIPHEP](OAc)_2$	134527-17-6
Chiralyst® P889	$[Ru(cod)(CF_3CO_2)_2]_2 \times n\ H_2O$	93582-31-1
Chiralyst® Ru950	$Ru[(R)\text{-}BINAP](CF_3CO_2)_2$	136779-60-7
Chiralyst® Ru951 Ru(TFA)2-(S)-Binap	$Ru[(S)\text{-}BINAP](CF_3CO_2)_2$	106681-16-7
Chiralyst® Ru929	[RuCl(p-cymene)(R)-BINAP]Cl	145926-28-9
Chiralyst® Ru929	[RuCl(p-cymene)(R)-BINAP]Cl	145926-28-9
Chiralyst® Ru930	[RuCl(p-cymene)(S)-BINAP]Cl	130004-33-0
Chiralyst® Ru1042	[RuCl(p-cymene)(S)-Xyl-BINAP]Cl	1345887-44-6
Chiralyst® Ru918	[RuCl(p-cymene)(S)-SEGPHOS)]Cl	944451-29-0
Chiralyst® Ru636	Ru[(R,R)-TsDPEN](p-cymene)Cl	192139-92-7
Chiralyst® Ru637	Ru[(S,S)-TsDPEN](p-cymene)Cl	192139-90-5

TMCat

Nickel Catalysts		
TMCat Ni12	$[Ni(PPh_3)_4]$	15133-82-1
TMCat Ni301	$[NiCl(PPh_3)_3]$	15169-64-9
TMCat Ni500	Ni(TMEDA)(o-tolyl)Cl	1702744-45-3
TMCat Ni531	$Ni(Nap)(PPh_3)_2Cl$	54806-25-6
TMCat Ni701	$(IPr)Ni(PPh_3)Cl_2$	903592-98-3

Grubbs Catalyst®

Ruthenium Catalysts		
TRADE NAME	EMPIRICAL FORMULA	CAS No.
Grubbs Catalyst® M102	$Ru(PCy_3)_2(benzylidene)Cl_2$	172222-30-9
Grubbs Catalyst® M103	$Ru(PCy_3)_2(butenylidene)Cl_2$	194659-03-5
Grubbs Catalyst® M110	$Ru(iBu\text{-}phobane)_2(Ind)Cl_2$	894423-99-5
Grubbs Catalyst® M200	$[(SIMes)Ru(PPh_3)(Ind)Cl_2]$	340810-50-6
Grubbs Catalyst® M201	$(SIPr)Ru(PPh_3)(Ind)Cl_2$	1307233-23-3
Grubbs Catalyst® M202	$(SIMes)Ru(PCy_3)(Ind)Cl_2$	536724-67-1
Grubbs Catalyst® M204	$(SIMes)Ru(PCy_3)(benzylidene)Cl_2$	246047-72-3
Grubbs Catalyst® M206	$(SIPr)Ru(PCy_3)(benzylidene)Cl_2$	373640-75-6
Grubbs Catalyst® M207	$(SIMes)Ru(PCy_3)(butenylidene)Cl_2$	253688-91-4
Grubbs Catalyst® M220	$[(SIMes)Ru(P(OiPr)_3)(Ind)Cl_2]$	1255536-61-8
Grubbs Catalyst® M310	$[(SIMes)Ru(py)(Ind)Cl_2]$	1031262-76-6
Grubbs Catalyst® M350		934538-12-2
Hoveyda Grubbs Catalyst® M700		203714-71-0
Hoveyda Grubbs Catalyst® M710		1025728-56-6
Hoveyda Grubbs Catalyst® M711		1212008-99-5
Hoveyda Grubbs Catalyst® M720		301224-40-8
Hoveyda Grubbs Catalyst® M721		927429-61-6
Hoveyda Grubbs Catalyst® M722		635679-24-2
Hoveyda Grubbs Catalyst® M730		1025728-57-7
Hoveyda Grubbs Catalyst® M731		1212009-05-6
Grubbs Catalyst® M800	$(SIMes)_2Ru(Ind)Cl_2$	1383684-54-5
Grubbs Catalyst® M801	$(SIMes)_2Ru(benzylidene)Cl_2$	508172-19-8
Hoveyda Grubbs Catalyst® M1001		1632041-02-1
Hoveyda Grubbs Catalyst® M1002		1206687-43-5
Hoveyda Grubbs Catalyst® M2001		1352916-84-7
Hoveyda Grubbs Catalyst® M2002		1451807-77-4
Hoveyda Grubbs Catalyst® M2102		1865771-19-2
Grubbs Catalyst® M3002		2374826-66-9

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Organometallics

TRADE NAME	EMPIRICAL FORMULA	CAS No.
Heterogeneous Catalysts		
Adams' catalyst	PtO_2 x n H_2O	52785-06-5
Nishimura's catalyst	Rh_2O_3 / PtO_2 x n H_2O	39373-27-8 / 52785-06-5

Organometallics

TRADE NAME	EMPIRICAL FORMULA	CAS No.
Gold Catalysts		
	$[(PPh_3)AuCl]$	14243-64-2
	[(IPr)AuCl]	852445-83-1
	[(IMes)AuCl]	852445-81-9
	[(tht)AuCl]	39929-21-0
Iridium Catalysts		
	[Ir(cod)(acac)]	12154-84-6
Umicore HS157	$[Ir(cod)Cl]_2$	12112-67-3
Platinum Catalysts		
Pt-Tetrakis	$[Pt(PPh_3)_4]$	14221-02-4
Umicore HS125	$[Pt(PPh_3)_2Cl_2]$	15604-36-1
Umicore HS149	$[Pt(acac)_2]$	15170-57-7
Umicore HS152	$[Pt(cod)Cl_2]$	12080-32-9
Umicore HS156	$[Pt(cyclohexene)Cl_2]_2$	60134-75-0
Umicore HS425	[(IPr)Pt(vs)]	849830-54-2
Umicore HS426	(SIPr)Pt(vs)	873311-51-4
Rhodium Catalysts		
	$[Rh(acac)_3]$	14284-92-5
	$Rh(NO_3)_3$ x n H_2O	13465-43-5
	$[Rh(C_7H_{15}COO)_2]_2$	73482-96-9
Wilkinson's catalyst	$Rh(PPh_3)_3Cl$	14694-95-2
Ruthenium Catalysts		
	$[Ru(acac)_3]$	14284-93-6
	$Ru(cod)(C_5Me_5)Cl$	92390-26-6
	$[Ru(C_5Me_5)Cl_2]n$	96503-27-4
	$[Ru(mesitylene)Cl_2]_2$	52462-31-4

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