

Products for Homogeneous Catalysis

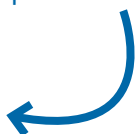
A comprehensive portfolio of homogeneous catalysts and ligands. Designed to support efficient and selective transformations from early research to industrial scale.

**Let's create good chemistry.
Together.**

Homogeneous Catalyst & Ligand Portfolio for your Catalytic Transformation

Our range of homogeneous catalysts is designed to deliver high performance and precision across a variety of chemical processes. These catalysts offer excellent selectivity, efficiency, and adaptability, making them ideal for applications in fine chemicals, pharmaceuticals, and advanced materials.

To explore detailed specifications, applications, and technical data for each product, please visit our website's product finder.



Cross-Coupling Catalysts

Palladium Catalysts - Palladium Precursors		
TRADE NAME	EMPIRICAL FORMULA	CAS No.
	$[\text{Pd}_2(\text{dba})_3] \times \text{dba}$	51364-51-3
	$[\text{Pd}(\text{cod})\text{Cl}_2]$	12107-56-1
	$[\text{Pd}(\text{acac})_2]$	14024-61-4
	$[\text{Pd}(\text{OAc})_2]_3$	3375-31-3
	$[\text{Pd}(\text{OOCtBu})_2]_3$	106224-36-6
	$[\text{Pd}(\text{CH}_3\text{CN})_2\text{Cl}_2]$	14592-56-4
	$[\text{Pd}(\text{C}_6\text{H}_5\text{CN})_2\text{Cl}_2]$	14220-64-5
	$[\text{Pd}(\text{allyl})\text{Cl}]_2$	12012-95-2
	$[\text{Pd}(\text{cinnamyl})\text{Cl}]_2$	12131-44-1

Cross-Coupling Catalysts

Palladium Catalysts - Palladium Phosphine Catalysts		
TRADE NAME	EMPIRICAL FORMULA	CAS No.
Fu catalyst	$[\text{Pd}(\text{P}(\text{tBu}_3))_2]$	53199-31-8
Pd-Tetrakis	$[\text{Pd}(\text{PPh}_3)_4]$	14221-01-3
Umicore CX15	$[\text{PdBr}[\text{P}(\text{tBu}_3)]_2]$	185812-86-6
Umicore CX16	$[\text{PdI}[\text{P}(\text{tBu}_3)]_2]$	166445-62-1
Umicore CX62	$[\text{Pd}(\text{dippf})(\text{vs})\text{tol}]$	1708984-17-1
Umicore CX72	$[\text{Pd}(\text{PCy}_3)_2\text{Cl}_2]$	29934-17-6
Umicore CX73	$[\text{Pd}(\text{PPh}_3)_2\text{Cl}_2]$	13965-03-2
Umicore CX74	$[\text{Pd}(\text{P}(\text{o-tol})_3)_2\text{Cl}_2]$	40691-33-6
Umicore CX76	$[\text{Pd}(\text{PCy}_3)_2(\text{OAc})_2]$	59840-38-9
Umicore CX81	$\text{Pd}(\text{P}(\text{tBu})_2\text{Ph})_2\text{Cl}_2$	34409-44-4
Umicore CX82	$[\text{Pd}(\text{P}(\text{tBu})\text{Cy}_2)_2\text{Cl}_2]$	104889-13-6
Umicore CX84	$[\text{Pd}(\text{amphos})_2\text{Cl}_2]$	887919-35-9
Umicore CX85	$\text{Pd}(\text{P}(\text{tBu})\text{Ph}_2)_2\text{Cl}_2$	294673-79-3
Umicore CX91	$[\text{Pd}(\text{dppe})\text{Cl}_2]$	19978-61-1
Umicore CX92	$[\text{Pd}(\text{dppp})\text{Cl}_2]$	59831-02-6
Umicore CX93	$[\text{Pd}(\text{dppf})\text{Cl}_2]$	72287-26-4
Umicore CX94	$[\text{Pd}(\text{dppf})\text{Cl}_2] \times \text{CH}_2\text{Cl}_2$	95464-05-4
Umicore CX95	$[\text{Pd}(\text{dppf})\text{Cl}_2] \times (\text{CH}_3)_2\text{CO}$	851232-71-8
Umicore CX96	$[\text{Pd}(\text{dtbpf})\text{Cl}_2]$	95408-45-0
Umicore CX97	$[\text{Pd}(\text{Xantphos})\text{Cl}_2]$	205319-10-4
Umicore CX98	$[\text{Pd}(\text{DPEphos})\text{Cl}_2]$	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-tBu-Ind)Cl] ₂	1779569-01-5
Umicore CX201	[Pd(1-tBu-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(PAd ₃)G3	[Pd(PAd ₃)[2-(2'-amino-1,1'-biphenyl)](Ms)]	2252175-57-6
Umicore CX402	Pd(PAd ₃)(1-tBu-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	$[\text{Pd}(\alpha\text{-MeNAP})\text{Br}]_2$	2751616-98-3
Umicore CX701	$\text{Pd}(\alpha\text{-MeNAP})(\text{P}(\text{tBu})_3)\text{Br}$	2751617-01-1
Umicore CX721	$[(\text{IPr})\text{Pd}(\alpha\text{-MeNAP})\text{Br}]$	2751617-04-4
Umicore CX724	$[(\text{IPent})\text{Pd}(\alpha\text{-MeNAP})\text{Br}]$	
Umicore CX737	$\text{Pd}(\alpha\text{-MeNAP})(\text{tBuBrettPhos})\text{Br}$	3053769-87-9
Umicore CX741	$\text{Pd}(\alpha\text{-MeNAP})(\text{cataCXium}^\circledast \text{ A})\text{Br}$	2751617-11-3
Umicore CX742	$\text{Pd}(\alpha\text{-MeNAP})(\text{PAd}_3)\text{Br}$	
Umicore CX750	$[\text{Pd}(\beta\text{-MeNAP})\text{Br}]_2$	2751617-00-0

Ligands for Cross-Coupling Catalysis

YPhos Ligands		
TRADE NAME	EMPIRICAL FORMULA	CAS No.
joYPhos	$\text{PCy}_3\text{C}(\text{Ph})\text{PCy}_2$	2271302-85-1
keYPhos	$\text{PCy}_3\text{C}(\text{Me})\text{PCy}_2$	14185-94-5
trYPhos	$\text{PCy}_3\text{C}(\text{Me})\text{PtBu}_2$	2271302-83-9
pinkYPhos	$\text{PCy}_3\text{C}(\text{o-Tol})\text{PCy}_2$	2495200-15-0
piperYPhos	$\text{PPip}_3\text{C}(\text{o-Tol})\text{PCy}_2$	
cataCXium [®] A	$\text{P}(\text{Ad})_2\text{Bu}$	321921-71-5

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

Chiralyt[®]

Iridium Catalysts		
TRADE NAME	EMPIRICAL FORMULA	CAS No.
Chiralyt [®] P663	$[\text{Ir}(\text{cod})(\text{OMe})]_2$	12148-71-9
Chiralyt [®] P1271	$[\text{Ir}(\text{cod})_2]\text{BArF}$	666826-16-0
Chiralyt [®] P663	$[\text{Ir}(\text{cod})(\text{OMe})]_2$	12148-71-9
Chiralyt [®] P1271	$[\text{Ir}(\text{cod})_2]\text{BArF}$	666826-16-0
Chiralyt [®] P797	$[\text{Ir}(\text{C}_5\text{Me}_5)\text{Cl}_2]_2$	12354-84-6
Chiralyt [®] P1163	$[\text{Ir}(\text{C}_5\text{Me}_5)_2]_2$	33040-12-9

Rhodium Catalysts		
TRADE NAME	EMPIRICAL FORMULA	CAS No.
Chiralyt [®] P310	$\text{Rh}(\text{cod})(\text{acac})$	12245-39-5
Chiralyt [®] P442	$[\text{Rh}(\text{OAc})_2]_2 \times n \text{ H}_2\text{O}$	29998-99-0
Chiralyt [®] P493	$[\text{Rh}(\text{cod})\text{Cl}]_2$	12092-47-6
Chiralyt [®] P407	$[\text{Rh}(\text{cod})_2]\text{BF}_4$	35138-22-8
Chiralyt [®] Rh604	$[\text{Rh}[(\text{R,R})\text{-MeDuPhos}](\text{cod})]\text{BF}_4$	210057-23-1
Chiralyt [®] Rh605	$[\text{Rh}[(\text{S,S})\text{-MeDuPhos}](\text{cod})]\text{BF}_4$	205064-10-4
Chiralyt [®] Rh660	$[\text{Rh}[(\text{R,R})\text{-EtDuPhos}](\text{cod})]\text{BF}_4$	228121-39-9
Chiralyt [®] Rh804	$[\text{Rh}[(\text{R,R})\text{-Ph-BPE}](\text{cod})]\text{BF}_4$	528565-84-6
Chiralyt [®] Rh840	$[\text{Rh}(\text{SL-J002-1})(\text{cod})]\text{BF}_4$	673458-86-1
Chiralyt [®] P468	$[\text{Rh}(\text{cod})_2]\text{CF}_3\text{SO}_3$	99326-34-8
Chiralyt [®] P1182	$[\text{Rh}(\text{cod})_2]\text{BArF}$	404573-66-6
Chiralyt [®] P461	$[\text{Rh}(\text{nbd})\text{Cl}]_2$	12257-42-0
Chiralyt [®] P294	$\text{Rh}(\text{nbd})(\text{acac})$	32354-50-0
Chiralyt [®] P374	$[\text{Rh}(\text{nbd})_2]\text{BF}_4$	36620-11-8
Chiralyt [®] P618	$[\text{Rh}(\text{C}_5\text{Me}_5)\text{Cl}_2]_2$	12354-85-7
Chiralyt [®] Rh639	$\text{Rh}[(\text{R,R})\text{-TsDPEN}](\text{C}_5\text{Me}_5)\text{Cl}$	223392-99-2
Chiralyt [®] Rh640	$\text{Rh}[(\text{S,S})\text{-TsDPEN}](\text{C}_5\text{Me}_5)\text{Cl}$	219944-99-7

Chiralyt[®]

Ruthenium Catalysts		
TRADE NAME	EMPIRICAL FORMULA	CAS No.
Chiralyt [®] P280	[Ru(cod)Cl ₂] _n	50982-12-2
Chiralyt [®] P612	[Ru(p-cymene)Cl ₂] ₂	52462-29-0
Chiralyt [®] P978	[Ru(p-cymene)I ₂] ₂	90614-07-6
Chiralyt [®] P327	Ru(cod)(OAc) ₂	133519-03-6
Chiralyt [®] Ru842	Ru[(R)-BINAP](OAc) ₂	325146-81-4
Chiralyt [®] Ru843	Ru[(S)-BINAP](OAc) ₂	261948-85-0
Chiralyt [®] Ru954	Ru[(R)-Xyl-BINAP](OAc) ₂	374067-50-2
Chiralyt [®] Ru802	Ru[(R)-MeO-BIPHEP](OAc) ₂	133519-04-7
Chiralyt [®] Ru803	Ru[(S)-MeO-BIPHEP](OAc) ₂	134527-17-6
Chiralyt [®] P889	[Ru(cod)(CF ₃ CO ₂) ₂] ₂ x n H ₂ O	93582-31-1
Chiralyt [®] Ru950	Ru[(R)-BINAP](CF ₃ CO ₂) ₂	136779-60-7
Chiralyt [®] Ru951 Ru(TFA)2-(S)-Binap	Ru[(S)-BINAP](CF ₃ CO ₂) ₂	106681-16-7
Chiralyt [®] Ru929	[RuCl(p-cymene)(R)-BINAP]Cl	145926-28-9
Chiralyt [®] Ru930	[RuCl(p-cymene)(S)-BINAP]Cl	130004-33-0
Chiralyt [®] Ru1042	[RuCl(p-cymene)(S)-Xyl-BINAP]Cl	1345887-44-6
Chiralyt [®] Ru918	[RuCl(p-cymene)(S)-SEGPLHOS]Cl	944451-29-0
Chiralyt [®] Ru636	Ru[(R,R)-TsDPEN](p-cymene)Cl	192139-92-7
Chiralyt [®] 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) ₂ Cl	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	$\text{Ru}(\text{PCy}_3)_2(\text{benzylidene})\text{Cl}_2$	172222-30-9
Grubbs Catalyst® M110	$\text{Ru}(\text{iBu-phobane})_2(\text{Ind})\text{Cl}_2$	894423-99-5
Grubbs Catalyst® M200	$[(\text{SiMes})\text{Ru}(\text{PPh}_3)(\text{Ind})\text{Cl}_2]$	340810-50-6
Grubbs Catalyst® M201	$(\text{SiPr})\text{Ru}(\text{PPh}_3)(\text{Ind})\text{Cl}_2$	1307233-23-3
Grubbs Catalyst® M202	$(\text{SiMes})\text{Ru}(\text{PCy}_3)(\text{Ind})\text{Cl}_2$	536724-67-1
Grubbs Catalyst® M204	$(\text{SiMes})\text{Ru}(\text{PCy}_3)(\text{benzylidene})\text{Cl}_2$	246047-72-3
Grubbs Catalyst® M206	$(\text{SiPr})\text{Ru}(\text{PCy}_3)(\text{benzylidene})\text{Cl}_2$	373640-75-6
Grubbs Catalyst® M207	$(\text{SiMes})\text{Ru}(\text{PCy}_3)(\text{butenylidene})\text{Cl}_2$	253688-91-4
Grubbs Catalyst® M220	$[(\text{SiMes})\text{Ru}(\text{P}(\text{OiPr})_3)(\text{Ind})\text{Cl}_2]$	1255536-61-8
Grubbs Catalyst® M310	$[(\text{SiMes})\text{Ru}(\text{py})(\text{Ind})\text{Cl}_2]$	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	$(\text{SiMes})_2\text{Ru}(\text{Ind})\text{Cl}_2$	1383684-54-5
Grubbs Catalyst® M801	$(\text{SiMes})_2\text{Ru}(\text{benzylidene})\text{Cl}_2$	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

Let's create good chemistry.
Together.



Organometallics

TRADE NAME	EMPIRICAL FORMULA	CAS No.
Heterogeneous Catalysts		
Adams' catalyst	$\text{PtO}_2 \times n \text{ H}_2\text{O}$	52785-06-5
Nishimura's catalyst	$\text{Rh}_2\text{O}_3 / \text{PtO}_2 \times n \text{ H}_2\text{O}$	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
	$[(tth)AuCl]$	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
	$Rh(NO_3)_3 \times n H_2O$	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

For inquiries and additional information please contact

Umicore AG & Co. KG
Rodenbacher Chaussee 4
63457 Hanau-Wolfgang
Germany

Tel.: +49 6181 7064 810
chemistry@umicore.com



pmc.umicore.com

