

Chiralyst™ – Chiral Catalyst

- » Precursors and chiral metal-ligand complexes
- » Customised catalysts development & manufacturing

» Expertise in selectivity

Umicore Precious Metals Chemistry catalysts and technology help you developing your enantioselective catalytic applications to industrial scale

» Relevant Rh, Ru, Ir precursors at high level of purity up to 100 kg scale.

Umicore name	Chemical name	CAS No.	Product No.
Rh, Ru, Ir precursors			
Rh(COD)acac	Acetylacetonato-(1,5-cyclooctadiene)rhodium(I)	12245-39-5	RH-45433
[Rh(COD)Cl] ₂	Chloro-(1,5-cyclooctadiene)rhodium(I)-dimer	12092-47-6	RH-43041
[Rh(COD) ₂]BF ₄	Bis-(1,5-cyclooctadiene)rhodium(I)-tetrafluoroborate	35138-22-8	RH-43025
[Rh(COD) ₂]OTf	Bis-(1,5-cyclooctadiene)rhodium(I)-trifluoromethanesulfonate	99326-34-8	RH-43822
[Rh(NBD)Cl] ₂	Chloro(norbornadiene)rhodium(I)-dimer	12257-42-0	RH-43145
[Rh(NBD) ₂]BF ₄	Bis(norbornadiene)rhodium(I)-tetrafluoroborate	36620-11-8	RH-43627
Rh(NBD)acac	Acetylacetonato(norbornadiene)rhodium(I)	32354-50-0	RH-43734
[Rh(C ₅ Me ₅)Cl] ₂	Dichloro(pentamethylcyclopentadienyl)rhodium(III)-dimer	12354-85-7	RH-43033
[Ru(COD)Cl] _n	Dichloro-(1,5-cyclooctadiene)ruthenium(II)-polymer	50982-13-3	RU-43636
[Ru(p-cymene)I] ₂	Diiodo-(p-cymene)ruthenium(II)-dimer	90614-07-6	RU-42621
[Ru(p-cymene)Cl] ₂	Dichloro-(p-cymene)ruthenium(II)-dimer	52462-29-0	RU-42533
Ru(COD)(methylallyl) ₂	Bis-(2-methylallyl)-(1,5-cyclooctadiene)ruthenium(II)	12289-94-0	RU-42432
[Ir(COD)Cl] ₂	Chloro-(1,5-cyclooctadiene)iridium(I)-dimer	12112-67-3	IR-43057
Ir(COD)acac	Acetylacetonato-(1,5-cyclooctadiene)iridium(I)	12154-84-6	IR-43448

» Access to industrially relevant M-L complexes

Umicore name	Chemical name	CAS No.
M-L systems		
Rh-Mandyphos-001-1	[(αR, α'R')-2,2'-Bis(a-N,N-dimethylaminobenzyl)-(S,S)-1,1'-bis-(diphenylphosphino)-ferrocene-(1,5-cyclooctadiene)-rhodium(I)]-tetrafluoroborate	673458-82-7
Rh-Taniaphos-001-1	[(S)-1-Diphenylphosphino-2-[(α-(R)-N,N-dimethylamino)-(o-diphenylphosphinophenyl)-methyl]-ferrocene-(1,5-cyclooctadiene)-rhodium(I)]-tetrafluoroborate	673458-84-9
Rh-Josiphos-002-1	[(R)-(-)-1-[(S)-2-(Diphenylphosphino)-ferrocenyl]-ethyl-di-t-butylphosphine-(1,5-cyclooctadiene)-rhodium(I)]-tetrafluoroborate	673458-86-1
Rh-Rophos-001-2	[1,1'-(1,2-Phenylene)-bis-[2,5-dimethyl-(2S,2'S,3S,3'S,4S,4'S,5S,5'S)-3,4-phospholane diol-(1,5-cyclooctadiene)-rhodium(I)]-tetrafluoroborate	673486-47-0
Rh-Rophos-001-2T	[1,1'-(1,2-Phenylene)-bis-[2,5-dimethyl-(2S,2'S,3S,3'S,4S,4'S,5S,5'S)-3,4-phospholane diol-(1,5-cyclooctadiene)-rhodium(I)]-trifluoromethanesulfonate	-
Rh-Walphos-001-1	[(R)-1-[(R)-2-(2'-Diphenylphosphinophenyl)-ferrocenyl]-ethyl-di-(bis-3,5-trifluoromethylphenyl)-phosphine-(1,5-cyclooctadiene)-rhodium(I)]-tetrafluoroborate	673458-88-3
Rh-DIPAMP-001	[(R,R)-1,2-Ethanediy-bis-[(2-methoxyphenyl)-phenylphosphine]]-(1,5-cyclooctadiene)-rhodium(I)-tetrafluoroborate	-

» Through our cooperation partner Solvias we have access to

- Versatile Taniaphos, Taniaphos-OH and Mandyphos ligand families and other state-of-the-art ligands at industrial scale.
- Process development and high through-put screening.

» Customer oriented licensing models for easy and long term use of proprietary ligands and M-L-complexes.

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