



umicore  
materials for a better life

TMCat Ni

non-PGM catalysts

homogeneous catalysts for cross-couplings and beyond

# non-PGM catalysts for cross-couplings and beyond

## Expanding the scope of a full suite of cross-coupling transformations

Umicore PMC introduces a novel base metal catalysts product line offering additional reactivity and sufficient stability in chemical transformations facilitating applications in fine chemicals, pharmaceuticals and agrochemicals synthesis.

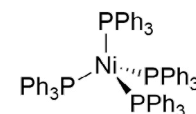
Homogeneous base metal catalysts are a promising addition to traditional platinum group metal (PGM) catalysts as they can offer unique reactivity trends resulting from alternative mechanistic pathways. Nickel undergoes more facile oxidative addition (0, +1, +2, +3, +4), can adopt a variety of oxidation states, is more able to access one-electron reduction/oxidation pathways and is less likely to facilitate  $\beta$ -hydride elimination.

Umicore PMC is committed to providing its customers with the highest quality products and services and differentiates itself by offering advanced, innovative solutions. We believe that our new line of homogeneous base metal catalysts will help us achieve this goal.

Learn more about the key advantages of TMCat Ni and visit our dedicated website or ask one of our experts.

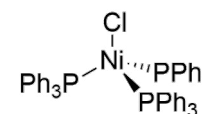


## TMCat Ni product portfolio



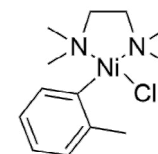
Trade name  
Empirical formula  
CAS no.

TMCat Ni12  
[Ni(PPh<sub>3</sub>)<sub>4</sub>]  
15133-82-1



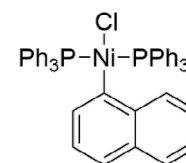
Trade name  
Empirical formula  
CAS no.

TMCat Ni301  
[NiCl(PPh<sub>3</sub>)<sub>3</sub>]  
15169-64-9



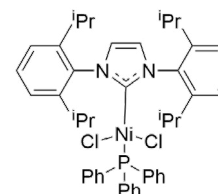
Trade name  
Empirical formula  
CAS no.

TMCat Ni500  
Ni(TMEDA)(o-tolyl)Cl  
1702744-45-3



Trade name  
Empirical formula  
CAS no.

TMCat Ni531  
Ni(Nap)(PPh<sub>3</sub>)<sub>2</sub>Cl  
54806-25-6



Trade name  
Empirical formula  
CAS no.

TMCat Ni701  
(IPr)Ni(PPh<sub>3</sub>)Cl<sub>2</sub>  
903592-98-3

Compared with palladium-based catalysts, complexes of nickel demonstrate a variety of differing and complementary reactivity.

For inquiries and additional information please contact

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