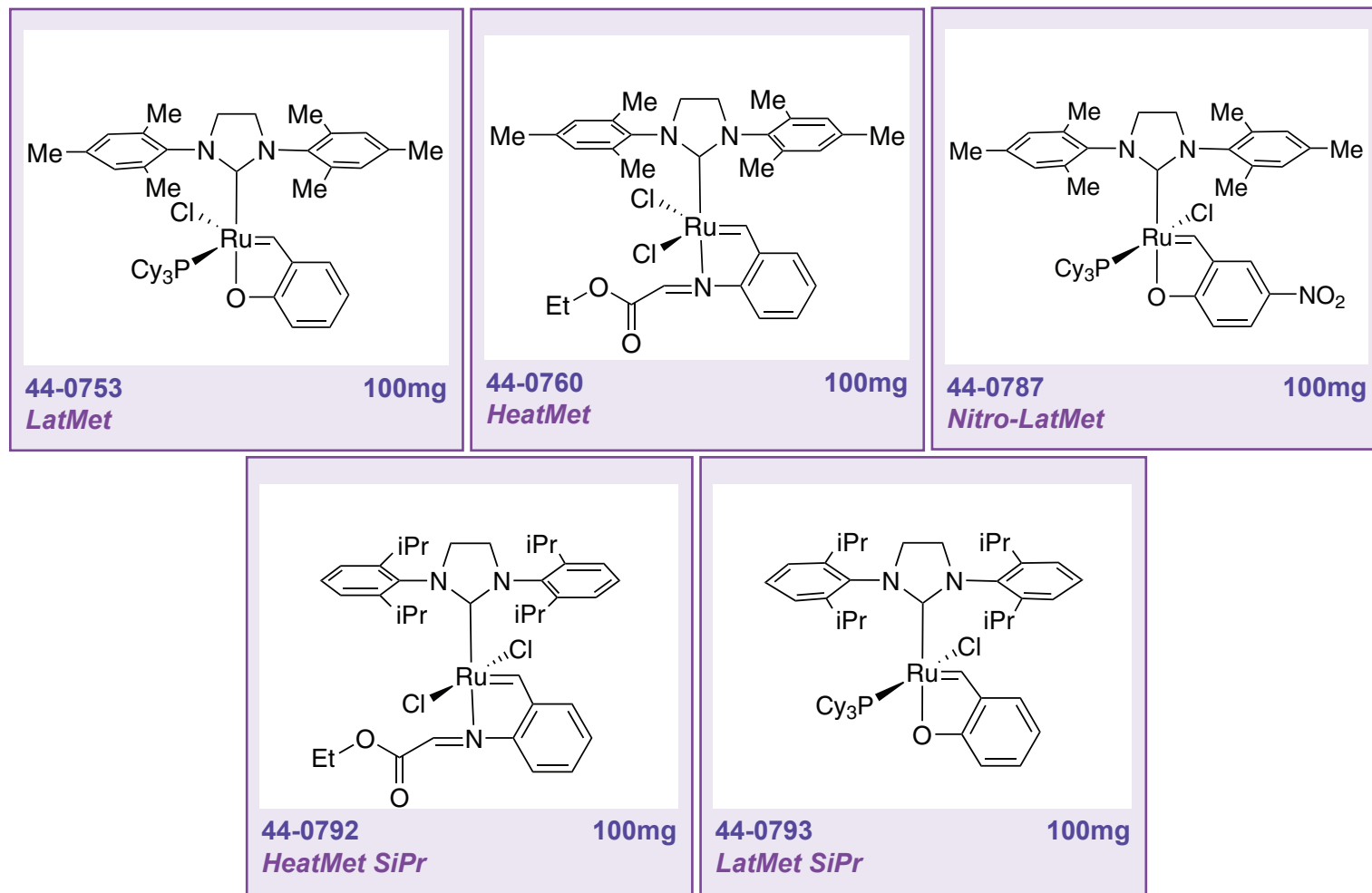


Sold in collaboration with Apeiron Synthesis, Inc.

96-0430 Apeiron Polymerization Catalysts Kit

The catalysts included in our Polymerization Catalysts Kit were specifically designed for ROMP of strained monomers such as dicyclopentadiene or norbornene. The latency of these catalysts allows for controlled preparation of formulation and curing within various conditions.

Components also available for individual sale. Contains the following:



44-0793 [1,3-Bis(2,6-di-*i*-propylphenyl)imidazolidin-2-ylidene](tricyclohexylphosphine)-(2-oxobenzylidene) ruthenium(II) chloride *LatMet SiPr* (1544328-59-7) 100mg
500mg
 $C_{52}H_{77}ClN_2OPRu$; FW: 913.68; dark green xtl.
air sensitive, (store cold)
 Note: Recommended storage 2-8°C. U.S. Patent 9,328,132, PCT/EP2013/065839.

Technical Note:

- Catalyst for metathesis applications.

References:

- U.S. Pat. Appl. Publ. **2015**, US 20150158896 A1 20150611.
- PCT Int. Appl. **2014**, WO 2014016422 A1 20140130.

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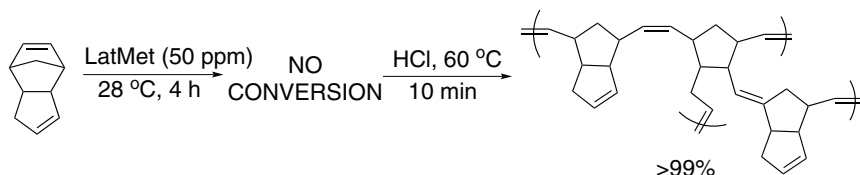
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44-0753 [1,3-Bis(2,4,6-trimethylphenylimidazolidin-2-ylidene)](tricyclohexylphosphine)-(2-oxobenzylidene) ruthenium(II) chloride **LatMet** (1407229-58-6) 100mg
500mg
C₄₆H₆₅ClN₂OPRu; FW: 829.52; green powdr.
Note: U.S. Patent 9,328,132, PCT/EP2013/065839. Aperion Ruthenium Metathesis Catalyst Kit component.

Technical Note:

1. This catalyst is used for olefin metathesis polymerization.



References:

1. *Chem. Eur. J.*, **2014**, *20*, 14120
2. *Eur. J. Inorg. Chem.*, **2014**, 1131

44-0787 [1,3-Bis(2,4,6-trimethylphenylimidazolidin-2-ylidene)(tricyclohexylphosphine)-(2-oxo-5-nitrobenzylidene)ruthenium(II) chloride **Nitro-LatMet** (1544328-53-1) 100mg
500mg
C₄₆H₆₄ClN₃O₃PRu; FW: 874.52; brown xtl.
air sensitive, (store cold)
Note: Recommended storage 2-8°C. U.S. Patent 9,328,132, PCT/EP2013/065839.

Technical Note:

1. Catalyst for metathesis applications.

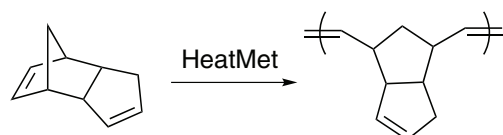
References:

1. *Angew. Chem.* **2017**, *129*, 1001–1006.
2. *U.S. Pat. Appl. Publ.* **2015**, US 20150158896 A1 20150611.
3. *Chemistry - A European Journal*, **2014**, *20*(43), 14120-14125.
4. *PCT Int. Appl.* **2014**, WO 2014016422 A1 20140130.
5. *European Journal of Inorganic Chemistry*, **2014**, *2014*(7), 1131-1136.

44-0760 Dichloro(1,3-bis(2,4,6-trimethylphenyl)imidazolidin-2-ylidene){2-[(ethoxy-2-oxoethylidene)amino]benzylidene}ruthenium(II) **HeatMet** 100mg
500mg
C₃₂H₃₇Cl₂N₃O₂Ru; FW: 667.63; dark purple xtls.
(store cold)
Note: U.S. Patent 14/443,034; PCT/IN2013/002543.

Technical Note:

1. HeatMet catalyst is a highly efficient latent catalyst, requiring thermal activation to initiate catalytic activity. Its characteristics are especially suitable to mold polymerization of reactive monomers such as dicyclopentadiene (DCPD). The catalyst is soluble in toluene and dichloromethane.



References:

1. *ChemSus Chem.*, **2015**, *8*, 4139.

44-0792 Dichloro(1,3-di-i-propylphenylimidazolidin-2-ylidene){2-[(ethoxy-2-oxoethylidene)amino]benzylidene} ruthenium(II) **HeatMet SIPr** (2097273-88-4) 100mg
500mg
C₃₈H₄₉Cl₂N₃O₂Ru; FW: 751.79; dark violet powdr.
air sensitive, (store cold)
Note: Recommended storage 2-8°C. U.S. Patent 14/443,034.

Technical Note:

1. Catalyst for metathesis applications.

References:

1. *ACS Catalysis*, **2017**, *7*(6), 4115-4121.

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