

# MeNAP CX catalysts

highly effective industrial C-C / C-N cross-coupling catalysts



Pioneering advancements in industrial cross-coupling catalysis

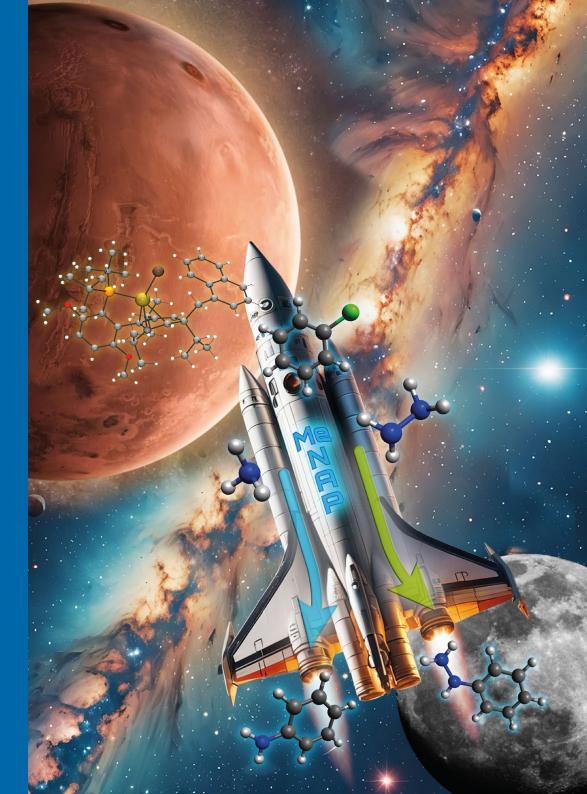
At Umicore PMC, we harness state-of-the-art catalysts such as MeNAP CX to revolutionize cross-coupling reactions. MeNAP-Palladium precursors, such as  $Di(\mu$ -bromo)bis(1-meth-ylnaphthyl)dipalladium(II), act as exceptionally fast activating precatalysts, which work seamlessly with preferred ligands to enable very specific and selective coupling reactions.

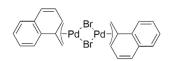
### Key features of the MeNAP CX catalysts:

- Specialized in executing challenging cross-coupling reactions like Suzuki-Miyaura couplings.
- Able to facilitate the formation of tetra-ortho-substituted biaryls at room temperature.
- Enables challenging reactions with low catalyst loading, enhancing efficiency.
- Offers flexibility by combining with various phosphine, NHC, or Buchwald ligands.
- Allows fine-tuning for individual reactions, expanding the range of accessible substrates.
- Enhances substrate scope by adapting to different ligands, broadening applicability.

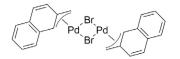
Learn more about our MeNAP CX catalysts and visit our dedicated website.







Trade name Umicore CX700 Empirical formula [Pd( $\alpha$ -MeNAP)Br], CAS no. 2751616-98-3



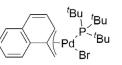
Trade name Umicore CX750 Empirical formula  $[Pd(\beta-MeNAP)Br]_{1}$ CAS no. 2751617-00-0

#### Driving innovation together

Umicore invites you to embark on a collaborative journey with us. You can take advantage of Umicore services such as screening support to explore how our MeNAP precursors or preformed catalysts can address your unique challenges across pharmaceuticals, fine-chemicals, and beyond. We have selected few privileged phosphines and NHC ligands to allow a first screening of the technology.

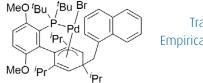
We also offer customization of MeNAP catalysts with your preferred ligands to create your own MeNAP CX technology success stories. We will be happy to evaluate any ligands you may identify in your screening tests to prepare preformed catalysts. So, you do not need to bother for catalyst preparation at scale. Our MeNAP technology is very versatile, and we are continuously evaluating more ligands.

### MeNAP product portfolio



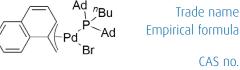
Trade name Empirical formula CAS no.

Umicore CX701  $Pd(\alpha-MeNAP)(P(^{t}Bu)_{3})Br$ 2751617-01-1



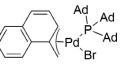
Trade name **Empirical formula** 

Umicore CX737  $Pd(\alpha$ -MeNAP) (<sup>t</sup>BuBrettPhos)Br



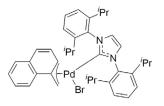
Trade name Empirical formula

Umicore CX741  $Pd(\alpha$ -MeNAP) (cataCXium<sup>®</sup> A)Br 2751617-11-3

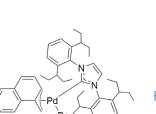


Trade name Empirical formula

Umicore CX742  $Pd(\alpha-MeNAP)(PAd_{3})Br$ 



Trade name Empirical formula [(IPr)Pd( $\alpha$ -MeNAP)Br] CAS no.



Trade name Umicore CX724 Empirical formula [(IPent)Pd( $\alpha$ -MeNAP)Br]

Umicore CX721

2751617-04-4

### Why MeNAP CX catalysts matter

C-C-bond formation via cross-coupling catalysis stands as a cornerstone in organic chemistry. MeNAP CX catalysts facilitate the synthesis of biologically active or other important functional molecules and plays a key role in the development of target products.

At Umicore Precious Metals Chemistry, we recognize the importance of cross-coupling chemistry. Our commitment to advancing this field is reflected in our diverse CX catalyst portfolio. By incorporating MeNAP CX into Umicore's portfolio, we ensure our customers have access to cutting-edge technology for their development needs.

## Let's create good chemistry.

Together.

For inquiries and additional information please contact

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