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Frontier Specialty Chemicals, Inc. **Technical Data Sheet**  
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Catalog Number: **41217**

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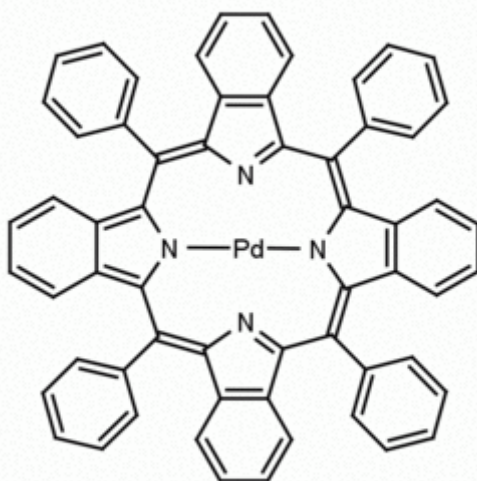
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**For research use only**

Not intended or approved for  
diagnostic or therapeutic use.

## Product Name: Pd(II) meso-Tetraphenyl Tetrabenzoporphine

Catalog Number: 41217



**Sizes Available:** 50 mg, 100 mg, and larger sizes available

**Molecular weight:** 919.39 g/mol

**Molecular Formula:** C<sub>60</sub>H<sub>36</sub>N<sub>4</sub>Pd

**CAS Number:** 119654-64-7

**Storage:** Store at room temperature and protect from light.

### Synonyms:

MESO-TETRAPHENYL-TETRABENZOPORPHINE, Pd(II) Meso-Tetraphenyl Tetrabenzoporphine  
meso-Tetraphenyl-tetrabenzoporphine palladium, [6,13,20,27-Tetraphenyl-29H,31H-  
Tetrabenzoporphinato(2-)-kappa2N29,N31]Palladium

## Field of Interest: Photon Upconversion

**Background: Pd(II) meso-Tetraphenyl Tetrabenzoporphine** is a synthetic porphyrin based product with photophysical properties related to energy up-conversion. <sup>1-3</sup>

## References:

- 1) De Mello, J. C.; Wittmann, H. F.; Friend, R. H. An improved experimental determination of external photoluminescence quantum efficiency. *Adv. Mater.* 1997, 9, 230-232.
- 2) Gray, V.; Dreos, A.; Erhart, P.; Albinsson, B.; Moth-Poulsen, K.; Abrahamsson, M. Loss channels in triplet-triplet annihilation photon upconversion: Importance of annihilator singlet and triplet surface shapes. *Phys. Chem. Chem. Phys.* 2017, 19, 10931-10939.
- 3) M. J. Frisch, G. W. Trucks, H. B. Schlegel, G. E. Scuseria, M. A. Robb, J. R. Cheeseman, G. Scalmani, V. Barone, B. Mennucci, G. A. Petersson, H. Nakatsuji, M. Caricato, X. Li, H. P. Hratchian, A. F. Izmaylov, J. Bloino, G. Zheng, J. L. Sonnenberg, M. Hada, M. Ehara, K. Toyota, R. Fukuda, J. Hasegawa, M. Ishida, T. Nakajima, Y. Honda, O. Kitao, H. Nakai, T. Vreven, J. A. Montgomery, Jr., J. E. Peralta, F. Ogliaro, M. Bearpark, J. J. Heyd, E. Brothers, K. N. Kudin, V. N. Staroverov, R. Kobayashi, J. Normand, K. Raghavachari, A. Rendell, J. C. Burant, S. S. Iyengar, J. Tomasi, M. Cossi, N. Rega, J. M. Millam, M. Klene, J. E. Knox, J. B. Cross, V. Bakken, C. Adamo, J. Jaramillo, R. Gomperts, R. E. Stratmann, O. Yazyev, A. J. Austin, R. Cammi, C. Pomelli, J. W. Ochterski, R. L. Martin, K. Morokuma, V. G. Zakrzewski, G. A. Voth, P. Salvador, J. J. Dannenberg, S. Dapprich, A. D. Daniels, Ö. Farkas, J. B. Foresman, J. V. Ortiz, J. Cioslowski, and D. J. Fox, Gaussian 09 (Gaussian, Inc., Wallingford CT, 2009).

**Hazardous Properties and Cautions:** The toxicological and pharmacological properties of this compound are not fully known. For further information see the SDS on request. **Pd(II) meso-Tetraphenyl Tetrabenzoporphine** is manufactured, shipped according to standard practices, and intended for research and development in a laboratory utilizing prudent procedures for handling chemicals of unknown toxicity, under the supervision of persons technically qualified to evaluate potential risks and authorized to enforce appropriate health and safety measures. As with all research chemicals, precautions should be taken to avoid unnecessary exposures or risks.

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