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Frontier Specialty Chemicals, Inc. **Technical Data Sheet**  
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Catalog Number: **PdT975**

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**For research use only**

Not intended or approved for  
diagnostic or therapeutic use.

**Product Name: Pd(II) meso-Tetra(pentafluorophenyl)porphine**

**Catalog Number: PdT975**



**Sizes Available:** 100 mg, 250 mg, 1 g, and larger sizes available

**Molecular weight:** 1078.96 g/mol

**Molecular Formula:** C<sub>44</sub>H<sub>8</sub>F<sub>20</sub>N<sub>4</sub>Pd

**CAS Number:** 72076-09-6

**Storage:** Store at room temperature, protect from light

**Synonyms:** Pd(II) meso-Tetra(pentafluorophenyl)porphine, 5,10,15,20-TETRAKIS(PENTAFLUOROPHENYL)-2, 5,10,15,20-Tetrakis(pentafluorophenyl)-21H,23H-porphine palladium(II)

**Field of Interest:** Synthetic Porphyrins, Oxygen Sensor, Photostable

**Background:** Pd(II) meso-Tetra(pentafluorophenyl)porphine is a synthetic porphyrin based fine chemical that is a photostable oxygen sensor with stability due to the fluorine functional groups.<sup>1,2</sup> The catalytic properties of iron complexes are useful for epoxidation of olefins while magnesium complexes are found useful in pressure sensitive paints.<sup>3,4</sup>

#### References:

- 1) Yeh, Tai-Sheng; Chu, Chen-Shane; Lo, Yu-Lung, Highly sensitive optical fiber oxygen sensor using Pt(II) complex embedded in sol-gel matrices, Sensors and Actuators, B: Chemical (2006), 119(2), 701-707.
- 2) Ghosh, Abhik, 15. Substituent Effects on Valence Ionization Potentials of Free Base Porphyrins: A Local Density Functional Study, Journal of the American Chemical Society (1995), 117(16), 4691-9.
- 3) Nam, Wonwoo; Lee, Ha J.; Oh, So-Young; Kim, Cheal; Jang, Ho G., First success of catalytic epoxidation of olefins by an electron-rich iron(III) porphyrin complex and H<sub>2</sub>O<sub>2</sub>: imidazole effect on the activation of H<sub>2</sub>O<sub>2</sub> by iron porphyrin complexes in aprotic solvent, Journal of Inorganic Biochemistry (2000), 80(3-4), 219-225.
- 4) Khalil, Gamal E.; Costin, Colin; Crafton, Jim; Jones, Grant; Grenoble, Severin; Gouterman, Martin; Callis, James B.; Dalton, Larry R., Dual-luminophor pressure-sensitive paint I. Ratio of reference to sensor giving a small temperature dependency, Sensors and Actuators, B: Chemical (2004), 97(1), 13-21.

**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-Tetra(pentafluorophenyl)porphine 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.

**Warranty and Disclaimer:** Frontier Specialty Chemicals, Inc. warrants the product conforms to the specifications stated herein. In the event of nonconformity, Frontier will replace products or refund purchase price, at its sole option, and Frontier shall not be responsible for any other loss or damage, whether known or foreseeable to Frontier. No other warranties apply, express or implied, including but not limited to warranty of fitness for any purpose or implied warranty of merchantability. Purchaser is solely responsible for all consequences of its use of the product and Frontier assumes no responsibility therefore, including success of purchaser's research and development, or health or safety of any uses of the product.