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Frontier Specialty Chemicals, Inc. **Technical Data Sheet**  
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Catalog Number: **T40442**

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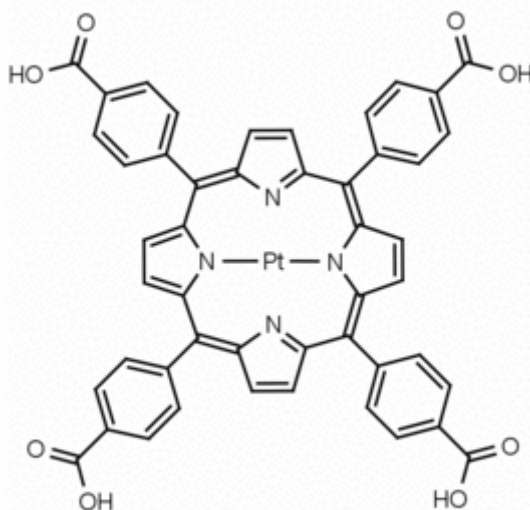
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**For research use only**

Not intended or approved for  
diagnostic or therapeutic use.

## Product Name: Pt(II) meso-Tetra (4-carboxyphenyl) porphine

Catalog Number: T40442



**Sizes Available:** 50 mg, 100 mg, 250 mg, and larger sizes available

**Molecular weight:** 983.84 g/mol

**Molecular Formula:** C<sub>48</sub>H<sub>28</sub>N<sub>4</sub>O<sub>8</sub>Pt

**CAS Number:** 94288-45-6

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

**Synonyms:** Not Available

**Field of Interest:** Phosphorescence, Oxygen measurement, photodynamic therapy,

**Background: Pt(II) meso-Tetra (4-carboxyphenyl) porphine** is a synthetic based porphyrin with a platinum ligand that is used to detect oxygen, is a photodynamic agent, and is used to construct metal-organic frameworks. It is sensitive to analytes in the blood when detecting oxygen, and sensors incorporating it for organic explosives are described<sup>1-4</sup>

#### References:

- 1) Vanderkooi, Jane M., Maniara, Grzegorz, Green, Thomas J., Wilson, David F., An optical method for measurement of dioxygen concentration based upon quenching of phosphorescence, *Journal of Biological Chemistry* (1987), 262(12), 5476-82.
- 2) Merchat, Michele, Bertolini, Giulio, Giacomini, Paolo, Villanueva, Angeles, Jori, Giulio, Meso-substituted cationic porphyrins as efficient photosensitizers of Gram-positive and Gram-negative bacteria, *Meso-substituted cationic porphyrins as efficient photosensitizers of Gram-positive and Gram-negative bacteria. Journal of Photochemistry and Photobiology, B: Biology* (1996), 32(3), 153-7. DOI:10.1016/1011-1344(95)07147-4
- 3) Zhang, Zhenjie, Zhang, Linping, Wojtas, Lukasz, Nugent, Patrick, Eddaoudi, Mohamed, Zaworotko, Michael J., Templated Synthesis, Postsynthetic Metal Exchange, and Properties of a Porphyrin-Encapsulating Metal-Organic Material, *Journal of the American Chemical Society* (2012), 134(2), 924-927.
- 4) Johnson-White, Brandy, Zeinali, Mazyar, Shaffer, Kara M., Patterson, Charles H., Charles, Paul T., Markowitz, Michael A., Detection of organics using porphyrin embedded nanoporous organosilicas, *Biosensors & Bioelectronics* (2007), 22(6), 1154-1162.

**Hazardous Properties and Cautions:** The toxicological and pharmacological properties of this compound are not fully known. For further information see the SDS on request. **Pt(II) meso-Tetra (4-carboxyphenyl) 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.