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Frontier Specialty Chemicals, Inc. **Technical Data Sheet**  
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Phone: 1-435-753-1901  
Catalog Number: **T679**

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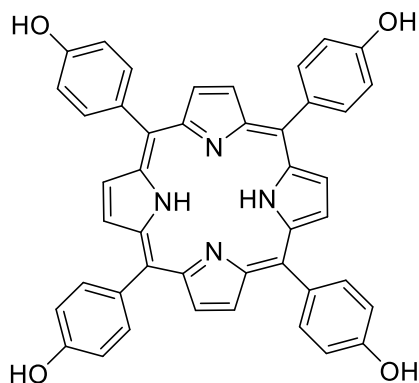
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**For research use only**

Not intended or approved for  
diagnostic or therapeutic use.

## Product Name: Meso-Tetra(p-hydroxyphenyl)porphine

Catalog Number: T679



**Sizes Available:** 100 mg, 250 mg, 500 mg, 1g, 5g and larger sizes available

**Molecular weight:** 678.7 g/mol

**Molecular Formula:** C<sub>44</sub>H<sub>30</sub>N<sub>4</sub>O<sub>4</sub>

**CAS Number:** 51094-17-8

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

**Synonyms:** 51094-17-8, 5,10,15,20-Tetrakis(4-hydroxyphenyl)-21H,23H-porphine,

5,10,15,20-Tetrakis(4-hydroxyphenyl)porphyrin, 4,4',4'',4'''-(21H,23H-porphine-

5,10,15,20-tetrayl)tetrakis-Phenol, 4-[10,15,20-tris(4-hydroxyphenyl)-21,23-

dihydroporphyrin-5-yl]phenol

## Field of Interest: Photosensitizers, Photodynamic Therapy, Covalent Organic Frameworks

**Background:** Meso-Tetra(p-hydroxyphenyl)porphine is a synthetic porphyrin that has been investigated as a photodynamic therapy agent<sup>1,2,3</sup>. A PEGylated derivative of meso-tetra(p-hydroxyphenyl)porphine was used to functionalize silver nanoparticles with potential applications as theranostic and sensing agents<sup>4</sup>. Meso-tetra(p-hydroxyphenyl)porphine was used for the construction of a covalent organic framework for supercapacitor applications<sup>5</sup>.

### References:

- 1) Berenbaum, M.C., Akande, S.L., Bonnett, R., Kaur, H., Ioannou, S., White, R.D., Winfield, U.J.; Meso-Tetra(hydroxyphenyl)porphyrins, a new class of potent tumor photosensitisers with favorable selectivity. *British Journal of Cancer* **1986**, *54*, 717-725. <https://doi.org/10.1038/bjc.1986.232>
- 2) Berenbaum, M.C., Bonnett, R., Chevetton, E.B., Akande-Adebakin, S.L., Ruston, M.; Selectivity of meso-tetra(hydroxyphenyl)porphyrins and chlorins and of photofrin II in causing photodamage in tumour, skin, muscle, and bladder. The concept of cost-benefit in analysing the results. *Lasers in Medical Science* **1993**, *8*, 235-243. <https://doi.org/10.1007/BF02547845>
- 3) Wikene, K.O., Bruzell, E., Tonnesen, H.H; Improved antibacterial phototoxicity of a neutral porphyrin in natural deep eutectic solvents. *Journal of Photochemistry and Photobiology B: Biology* **2015**, *148*, 188-196. <https://doi.org/10.1016/j.jphotobiol.2015.04.022>
- 4) Nicosia, A., Abbadessa, A., Vento, F., Mazzaglia, A., Mineo, P.G.; Silver Nanoparticles Decorated with PEGylated Porphyrins as Potential Theranostic and Sensing Agents. *Materials* **2021**, *14*, 2764. <https://doi.org/10.3390/ma14112764>
- 5) Sajjad, M., Lu, W.; Covalent organic frameworks based nanomaterials: Design, synthesis, and current status for supercapacitor applications: A review. *Journal of Energy Storage*, **2021**, *39*, 102618. <https://doi.org/10.1016/j.est.2021.102618>

**Hazardous Properties and Cautions:** The toxicological and pharmacological properties of this compound are not fully known. For further information see the SDS on request. **Meso-Tetra(p-hydroxyphenyl)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.