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Frontier Specialty Chemicals, Inc. **Technical Data Sheet**
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Catalog Number: **PtO534**

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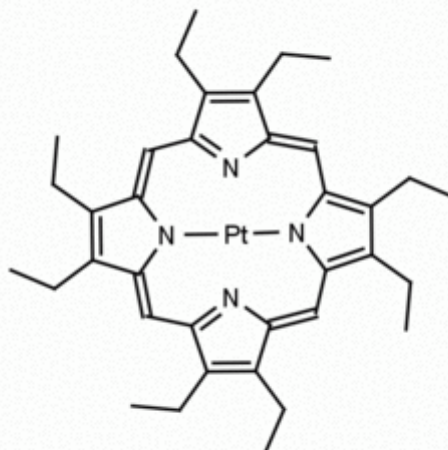
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For research use only

Not intended or approved for
diagnostic or therapeutic use.

Product Name: Pt(II) Octaethylporphine (PtOEP)

Catalog Number: PtO534



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

Molecular weight: 727.84 g/mol

Molecular Formula: C₃₆H₄₄N₄Pt

CAS Number: 31248-39-2

Storage: Store at room temperature, protect from light

Synonyms: 31248-39-2, Pt(II) Octaethylporphine(PtOEP), AKOS015963121

Field of Interest: Photo-Optics, Phosphorescent Energy Transfer, LEDs, Oxygen Sensor

Background: **Pt(II) Octaethylporphine (PtOEP)** is a porphyrin based synthetic product that possesses phosphorescent properties and is a probe of triplet behavior and useful in energy transfer and electrophosphorescent devices.^{1,2} It also is useful in polymer LEDs as an efficient triplet emitter, and as a stable optical oxygen sensor.^{3,4}

References:

- 1) Baldo, M. A.; O'Brien, D. F.; You, Y.; Shoustikov, A.; Sibley, S.; Thompson, M. E.; Forrest, S. R, Highly efficient phosphorescent emission from organic electroluminescent devices, *Nature (London)* (1998), 395(6698), 151-154. DOI:10.1038/25954.
- 2) O'Brien, D. F.; Baldo, M. A.; Thompson, M. E.; Forrest, S. R., Improved energy transfer in electrophosphorescent devices, *Applied Physics Letters* (1999), 74(3), 442-444. DOI:10.1063/1.123055.
- 3) Cleave, Vicki; Yahioglu, Goghan; Le Barny, Pierre; Friend, Richard H.; Tessler, Nir, Harvesting singlet and triplet energy in polymer LEDs, *Advanced Materials (Weinheim, Germany)* (1999), 11(4), 285-288. DOI:10.1002/(SICI)1521-4095(199903)11:4.
- 4) Palma, Alberto J.; Lopez-Gonzalez, Javier; Asensio, Luis J.; Fernandez-Ramos, Maria Dolores; Capitan-Vallvey, Luis Fermin, Microcontroller-based portable instrument for stabilized optical oxygen sensor, *Sensors and Actuators, B: Chemical* (2007), 121(2), 629-638. DOI:10.1016/j.snb.2006.03.056

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) Octaethylporphine (PtOEP)** 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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