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Frontier Specialty Chemicals, Inc. **Technical Data Sheet**
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Catalog Number: **T41015**

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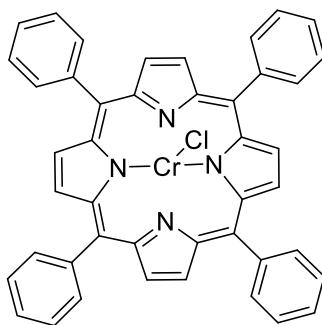
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For research use only

Not intended or approved for
diagnostic or therapeutic use.

Product Name: Cr(III) meso-Tetraphenylporphine Chloride (contains 1-3% chlorin)

Catalog Number: T41015



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

Molecular weight: 700.18 g/mol

Molecular Formula: C₄₄H₂₈ClCrN₄

CAS Number: 28110-70-5

Storage: Store at room temperature and protect from light.

Synonyms: Salicylate Ionophore I, meso-Tetraphenylporphine Chromium(III) chloride. Chromium tetraphenylporphine chloride, Meso-Tetraphenylporphyrin-Cr(III) chloride, Chromium(III) Tetraphenylporphine Chloride, Chloro(meso-tetraphenylporphinato)chromium, Chromium (III) Tetraphenylporphine Chloride, 5,10,15,20-Tetraphenylporphyrin Cr(III) Chloride, 5,10,15,20-Tetraphenyl-21H,23H-porphine chromium(III), Chromium(III) 5,10,15,20-tetraphenylporphine chloride

Field of Interest: Catalysis, Ionophores

Background: Cr(III) meso-Tetraphenylporphine Chloride (contains 1-3% chlorin) is a synthetically derived metalloporphyrin containing chromium in the (III) oxidation state. This complex has been used for the construction of an salicylate-selective membrane electrode¹. Cr(III) meso-Tetraphenylporphine Chloride in combination with dicobalt octacarbonyl produces a highly active catalytic species for the carbonylation of epoxides to B-lactones, avoiding the need to handle air sensitive intermediates for the preparation of the Coates catalyst².

References:

- 1) Shahrokhian, S., Hamzehloei, A., Bagherzadeh, M.; Chromium (III) Porphyrin as a selective ionophore in a salicylate-selective membrane electrode. *Anal Chem.* **2002**, *14*, 3312-3320. doi: 10.1021/ac020099n.
- 2) Ganji, P., Doyle, D.J., Ibrahim, H.; *In Situ* Generation of the Coates Catalyst: A Practical and Versatile Catalytic System for the Carbonylation of meso-Epoxides. *Org. Lett.* **2011**, *12*, 3142-3145. <https://doi.org/10.1021/ol201043d>

Hazardous Properties and Cautions: The toxicological and pharmacological properties of this compound are not fully known. For further information see the SDS on request. **Cr(III) meso-Tetraphenylporphine Chloride (contains 1-3% chlorin)** 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.