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Frontier Specialty Chemicals, Inc. **Technical Data Sheet**  
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Catalog Number: **Pha-592**

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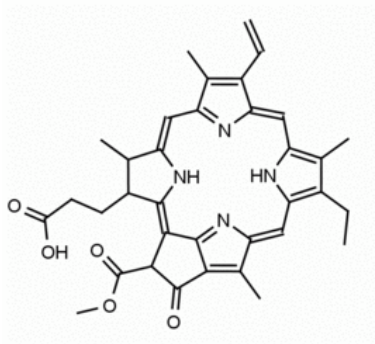
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**For research use only**

Not intended or approved for  
diagnostic or therapeutic use.

**Product Name: Pheophorbide a (diastereomer mixture)**

**Catalog Number: Pha-592**



**Sizes Available:** 50 mg, 100 mg, 250 mg, 500 mg and larger sizes available, Bulk pricing available

**Molecular weight:** 592.7 g/mol

**Molecular Formula:** C<sub>35</sub>H<sub>36</sub>N<sub>4</sub>O<sub>5</sub>

**CAS Number:** 15664-29-6

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

**Synonyms:** Pheophorbide a, 15664-29-6, Phaeophorbid a, Phaeophorbid-a, Phaeophorbide A, UNII-IA2WNI2HO2, EINECS 239-738-5, IA2WNI2HO2, CHEBI:38257, ChEMBL510103, ChEMBL2006244

**Field of Interest: Photodynamic Therapy, Inflammation activity, Photosynthesis and Chlorophyll degradation product**

**Background:** Pheophorbide a is active as a photosensitizer in solar cell applications and is a substrate for mammalian cell transport proteins.<sup>1,2</sup> It also is a catabolite of photosynthetic processes and a breakdown product of chlorophyll during senescence caused by oxygenases.<sup>3,4</sup>

## References:

- 1) Kay, Andreas; Graetzel, Michael, Artificial photosynthesis. 1. Photosensitization of titania solar cells with chlorophyll derivatives and related natural porphyrins, Journal of Physical Chemistry (1993), 97(23), 6272-7.
- 2) Robey, Robert W.; Steadman, Kenneth; Polgar, Orsolya; Morisaki, Kuniaki; Blayney, Margaret; Mistry, Prakash; Bates, Susan E., 9. Pheophorbide a Is a Specific Probe for ABCG2 Function and Inhibition, Cancer Research (2004), 64(4), 1242-1246. DOI:10.1158/0008-5472.CAN-03-3298
- 3) Schelbert, Silvia; Aubry, Sylvain; Burla, Bo; Agne, Birgit; Kessler, Felix; Krupinska, Karin; Hortensteiner, Stefan, Pheophytin pheophorbide hydrolase (pheophytinase) is involved in chlorophyll breakdown during leaf senescence in Arabidopsis, Plant Cell (2009), 21(3), 767-785. DOI:10.1105/tpc.108.064089
- 4) Pruzinska, Adriana; Tanner, Gaby; Anders, Iwona; Roca, Maria; Hoertensteiner, Stefan, Chlorophyll breakdown: pheophorbide a oxygenase is a Rieske-type iron-sulfur protein, encoded by the accelerated cell death 1 gene, Proceedings of the National Academy of Sciences of the United States of America (2003), 100(25), 15259-15264. Language: English, Database: CAPLUS, DOI:10.1073/pnas.2036571100

**Hazardous Properties and Cautions:** The toxicological and pharmacological properties of this compound are not fully known. For further information see the SDS on request. **Pheophorbide a** 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.