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Frontier Specialty Chemicals, Inc. **Technical Data Sheet**
P.O. Box 31
Logan, UT 84323-0031
Phone: 1-435-753-1901

Catalog Number: **C40405**

www.frontiersci.com

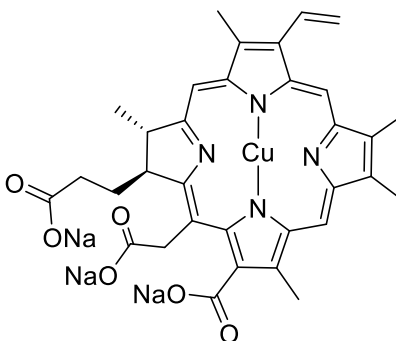
sales@frontiersci.com

For research use only

Not intended or approved for
diagnostic or therapeutic use.

Product Name: **Cu(II) Chlorin e6 Trisodium Salt**

Catalog Number: **C40405**



Sizes Available: 100 mg, and larger sizes available

Molecular weight: 724.15 g/mol

Molecular Formula: $C_{34}H_{31}CuN_4Na_3O_6$

CAS Number: 11006-34-1

Storage: Store at -20 °C and protect from light.

Synonyms: Chlorophyllin, chlorophyllin a, chlorophyllin copper complex, Chlorophyll e6, chlorophyllin copper complex, chlorophyllin sodium copper complex, copper chlorophyll, copper chlorophyllin

Field of Interest: Photosynthesis, Photodynamic Therapy, Photovoltaics, Solar Cells, Antiinflammation agent.

Background: Copper chlorin e6, trisodium salt, is a natural product derived from plants and studies in photosynthesis, and has numerous uses in photodynamic therapy, as a food additive, interactions in the inflammasome, and has been used in solar cell construction¹⁻⁵.

References:

- 1) Artificial photosynthesis. 1. Photosensitization of titania solar cells with chlorophyll derivatives and related natural porphyrin, Kay, Andreas; Graetzel, Michael, Journal of

Physical Chemistry (1993), 97(23), 6272-7, DOI:10.1021/j100125a02

- 2) Primary mutagenicity screening of food additives currently used in Japan, Ishidate, M., Jr.; Sofuni, T.; Yoshikawa, K.; Hayashi, M.; Nohmi, T.; Sawada, M.; Matsuoka, A., Food and Chemical Toxicology (1984), 22(8), 623-36 DOI:10.1016/0278-6915(84)90271-0
- 3) Antioxidant activity of chlorophylls and their derivatives, Lanfer-Marquez, Ursula M.; Barros, Rosa M. C.; Sinnecker, Patricia, Food Research International (2005), 38(8-9), 885-891 DOI:10.1016/j.foodres.2005.02.012
- 4) Copper chlorophyllin: A food colorant with bioactive properties?, Tumolo, Tathyana; Lanfer-Marquez, Ursula Maria, Food Research International (2012), 46(2), 451-459. Language: English, DOI:10.1016/j.foodres.2011.10.031
- 5) Artificial Photosynthesis. 2. Investigations on the Mechanism of Photosensitization of Nanocrystalline TiO₂ Solar Cells by Chlorophyll Derivatives, Kay, Andreas; Humphry-Baker, Robin; Graetzel, Michael, Journal of Physical Chemistry (1994), 98(3), 952-9. DOI:10.1021/j100054a035

Hazardous Properties and Cautions: The toxicological and pharmacological properties of this compound are not fully known. For further information see the SDS on request. **Cu(II) Chlorin e6 Trisodium Salt** 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.