



CERTIFICATE OF ANALYSIS

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1. Identification

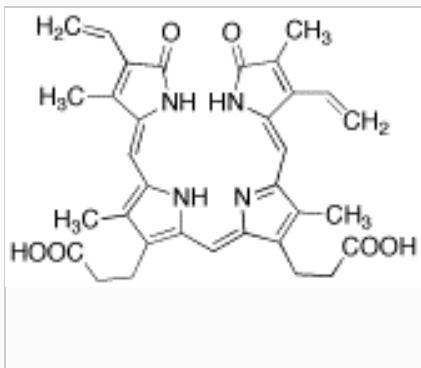
Catalogue Number: B386400

CAS Number: 114-25-0

Product: Biliverdine (Technical Grade)

Synonym: 3,18-Diethenyl-1,19,22,24-tetrahydro-2,7,13,17-tetramethyl-1,19-dioxo-21H-biline-8,12-dipropanoic Acid; Biliverdin; Biliverdin IXa; Dehydrobilirubin; NSC 62793; Ocyan; Probobiliverdin IXa; Uteroverdine; α -Biliverdin;

Structure:



Molecular Formula:

C₃₃H₃₄N₄O₆

Molecular weight:

582.65

Source of Product:

Synthetic

Solubility:

DMSO (Slightly), Methanol (Slightly)

Lot Number: 5-SHT-133-1

Purity: Technical Grade

Shipping Condition: This Product Is Stable To Be Shipped At Room Temperature

Storage Condition: -20°C

2. Warning

Warning 1:

Warning 2:

Warning 3:

3. Analytical Information

| Tests: | Specifications: | Results: |
|------------|---------------------------|-------------------------------|
| NMR | Conforms to Structure | Conforms |
| MS | Conforms to Structure | Conforms |
| Appearance | Dark Green to Black Solid | Very Dark Blue to Black Solid |

Additional Information: N/A

Purity is based on the analytical results of the tests performed. NMR and Elemental Analysis (if available) may have an accuracy of $\pm 2\%$. Isotopic purity is based on mass distribution observed. The contents of the specifications are subject to change without advance notice, and the specification values displayed here are the most up to date values.

4. Signatures

| Reviewed By | Reviewed By | C of A Approved By | Test Date | Retest Date |
|-------------|---------------|--------------------|-----------|-------------|
| Nicole Yip | Toni Rantanen | Chanell Chu | 3/20/2023 | 3/18/2027 |