



CERTIFICATE OF ANALYSIS

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1. Identification

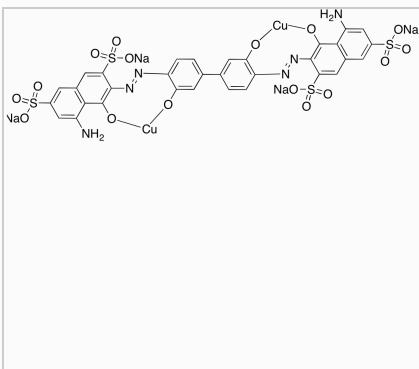
Catalogue Number: D492970

CAS Number: 28407-37-6

Product: Direct Blue 218 (Technical Grade)

Synonym: [Tetrahydrogen-3,3'-(3,3'-dihydroxy-4,4'-biphenylene)bis(azo)]bis[5-amino-4-hydroxy-2,7-naphthalenedisulfonato](4-)]di-Copper Tetrasodium Salt;

Structure:



Molecular Formula:

C₃₂H₁₆Cu₂N₆Na₄O₁₆S₄

Molecular weight:

1087.81

Source of Product:

N/A

Solubility:

DMSO (Sparingly), Methanol (Slightly), Water (Sparingly)

Lot Number: 2022-CPO-102

Purity: Technical Grade

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

Storage Condition: 4°C

2. Warning

Warning 1:

Warning 2:

Warning 3:

3. Analytical Information

| Tests: | Specifications: | Results: |
|---------------|-------------------------------|-------------------------------|
| Appearance | Very Dark Blue to Black Solid | Very Dark Blue to Black Solid |
| NMR | Conforms to Structure | Conforms |
| FT-IR | Conforms to Structure | Conforms |
| UV Absorbance | Report Result | 224 nm, 327 nm, 604 nm |

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 ± 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 |
|-------------|---------------|--------------------|-----------|-------------|
| Henry Tieu | Toni Rantanen | Chanell Chu | 1/3/2023 | 1/1/2027 |

