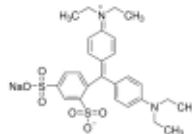


## Certificate of Analysis

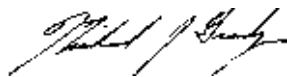
Product Name:

Patent Blue VF - Dye content 50 %

**Product Number:** 198218  
**Batch Number:** SHBM5956  
**Brand:** SIAL  
**CAS Number:** 129-17-9  
**MDL Number:** MFCD00012119  
**Formula:** C<sub>27</sub>H<sub>31</sub>N<sub>2</sub>NaO<sub>6</sub>S<sub>2</sub>  
**Formula Weight:** 566.66 g/mol  
**Quality Release Date:** 22 SEP 2020



Test	Specification	Result
Appearance (Form)	Powder	Powder
Infrared Spectrum	Conforms to Structure	Conforms
Wavelength	635 - 641 nm	639 nm
In Water		
Extinction Coefficient	≥ 50000	94533
Wavelength	408 - 414 nm	413 nm
Extinction Coefficient	≥ 5300	10931
Wavelength	308 - 314 nm	311 nm
Extinction Coefficient	≥ 7500	15421
Carbon	28.6 - 75.0 %	48.6 %
Nitrogen	2.4 - 7.4 %	4.1 %
Solubility (Color)	Dark Blue to Very Dark Blue and Dark Blue-Green to Very Dark Blue-Green	Dark Blue-Green
c = 1mg/ml(0.1%); Water		



Michael Grady, Manager  
Quality Control  
Milwaukee, WI US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at [Sigma-Aldrich.com](http://Sigma-Aldrich.com). For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

