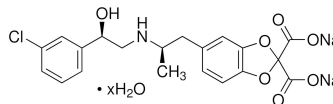


Certificate of Analysis

Product Name : CL 316,243 hydrate ≥98% (HPLC), powder
Product Number : C5976-25MG
Batch Number : 0000092264
Source Batch : 0000078222
CAS Number : 138908-40-4 (anhydrous)
Molecular Formula : C₂₀H₁₈ClNNa₂O₇ · xH₂O
Formula Weight : 465.79(anhydrous basis)
Quality Release Date : 08 Apr 2020



Test	Specification	Result
Appearance (Color)	White to Beige	Light Beige
Appearance (Form)	Powder	Powder
Solubility (Turbidity)	Clear	Clear
Solubility (Color)	Conforms to Requirements	Beige
Concentration	≥ 10.0 mg/ml	40.0 mg/ml
H ₂ O, Warmed		
Purity (HPLC)	≥ 97.5 %	98.9 %
Identity	Confirmed	Confirmed
Water Content	0.0 - 4.0 mol	0.7 mol
Salt Content	1.8 - 2.2 mol	2.0 mol
Elemental Composition	Pass	Pass
Optical Rotation	-29.0 - -21.0 °	-24.2 °
(c=1, H ₂ O)		

Brendan Nye, QC Supervisor
 Quality Control
 Natick, Massachusetts
 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. For further inquiries, please contact Technical Service. Purchase must determine the suitability of the product for its particular use. See reverse side of website or packing slip for additional terms and conditions of sale

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