

## Certificate of Analysis

Date of Testing: 2023-12-01 09:20:40  
Date of Next Testing: 2027-11-30 09:20:40  
Product Name: **Esculin sesquihydrate**  
CAS Number: 66778-17-4  
Specifications & Purity: 98%  
Lot #: K2329407  
SKU #: **E103661**  
**Analysis:** **297154**  
Storage Temperature: Protected from light

Parameter	Limit Values	Result
Purity(HPLC)	98-100 (%)	99.34300%
Water by Karl Fischer	6.5-8.5 (%)	7.23%
Specific Rotation [a] <sub>20</sub> /D(c=2.4 in 50% Dioxane)(calcd.on anh)	-88--84 (°)	-85.87°
Purity(Neutralization titration)(calcd.on anh.substance)	97.5-102.5 (%)	102.49%
Appearance (E103661)	White to off-white solid	White to off-white solid
Proton NMR spectrum	Conforms to Structure	Conforms to Structure
Solubility in hot H <sub>2</sub> O	almost transparency	almost transparency



John Su  
QA & QC Manager