

## Certificate of Analysis

Date of Testing: 2023-06-29 17:23:01  
Date of Next Testing: 2027-06-28 17:23:01  
Product Name: **Z-Pro-OH**  
CAS Number: 1148-11-4  
Specifications & Purity: 98%  
Lot #: F23251285  
SKU #: **Z105461**  
Analysis: **222045**

Parameter	Limit Values	Result
Specific Rotation [α] <sub>20</sub> /D(c=2 in AcOH)	-61--59 (°)	-59.44°
Melting point	75-78 (°C)	77.45000 °C
Purity(HPLC)	98-100 (%)	99.51600%
Appearance (Z105461)	White Powder or Crystals	White Powder or Crystals
Proton NMR spectrum	Conforms to Structure	Conforms to Structure



John Su  
QA & QC Manager