

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2023-03-28 16:12:40
 Date of Next Testing: 2025-03-27 16:12:40
 Product Name: **D-Valine Benzyl Ester p-Toluenesulfonate**
 CAS Number: 17662-84-9
 Specifications & Purity: $\geq 98\%$
 Lot #: D2321208
 SKU #: **S135773**
 Version: **0**
 Analysis #: **199759**
 Storage Temperature: Store at -20°C

Parameter	Limit Values	Result
Melting point	160-164 (°C)	160.56000 °C
Purity(Neutralization titration)	97.5-102.5 (%)	101.38000 %
Specific Rotation $[\alpha]_{20/D}(c=3.2 \text{ in MeOH})$	2-5 (°)	3.34500 °
Purity(HPLC)	98-100 (%)	99.50000 %
Appearance (S135773)	White to Off-White Powder	White to Off-White Powder
Proton NMR spectrum	Conforms to Structure	Conforms to Structure



John Su
QA & QC Manager