

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2023-07-04 16:50:17
 Date of Next Testing: 2027-07-03 16:50:17
 Product Name: **4-Chloro-DL-phenylalanine methyl ester hydrochloride**
 CAS Number: 14173-40-1
 Specifications & Purity: $\geq 98\%$
 Lot #: F2327642
 SKU #: **C117072**
 Version: **2**
 Analysis #: **232721**
 Storage Temperature: Store at -20°C

Parameter	Limit Values	Result
Specific Rotation $[\alpha]_{25}^D(c=1 \text{ in H}_2\text{O})$	-1-1 ($^{\circ}$)	0.19100 $^{\circ}$
Carbon by Elemental Analysis	46-49.2 (%)	46.67700 %
Nitrogen by Elemental Analysis	5.3-5.9 (%)	5.51000 %
Melting point	184-188 ($^{\circ}\text{C}$)	187.91000 $^{\circ}\text{C}$
Appearance (C117072)	White powder	White powder
Proton NMR spectrum	Conforms to Structure	Conforms to Structure
Solubility, Colorless, clear to lightly hazy (50 mg/ml of H ₂ O)	pass	Pass



John Su
QA & QC Manager