

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2025-10-22 16:03:08  
 Date of Next Testing: 2029-10-21 16:03:08  
 Product Name: **4-Chloro-DL-phenylalanine methyl ester hydrochloride**  
 CAS Number: 14173-40-1  
 Specifications & Purity:  $\geq 98\%$   
 Lot #: C1827079  
 SKU #: **C117072**  
 Version: **2**  
 Analysis #: **590285**  
 Storage Temperature: Store at  $-20^{\circ}\text{C}$

| Parameter                                                                   | Limit Values                   | Result                       |
|-----------------------------------------------------------------------------|--------------------------------|------------------------------|
| Specific Rotation $[\alpha]_{25}^D(c=1 \text{ in H}_2\text{O})$             | -1-1 ( $^{\circ}$ )            | 0.00 $^{\circ}$              |
| Melting point                                                               | 184-189 ( $^{\circ}\text{C}$ ) | 184.50000 $^{\circ}\text{C}$ |
| Carbon by Elemental Analysis                                                | 46-49.2 (%)                    | 48.11 %                      |
| Nitrogen by Elemental Analysis                                              | 5.3-5.9 (%)                    | 5.56 %                       |
| 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 <sub>2</sub> O) | pass                           | Pass                         |



John Su  
QA & QC Manager