

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

# Certificate of Analysis

Date of Testing: 2024-09-19 14:02:39

Date of Next Testing: 2027-09-19 14:02:39

Product Name: (S)-(+)-5-(Hydroxymethyl)-2-pyrrolidinone p-toluenesulfonate

CAS Number: 51693-17-5

Specifications & Purity: ≥95%

Lot #: I2410492

SKU # I170736

Version 0

Analysis #: 404872

Storage Temperature: Store at 2-8°C, Argon charged

| Parameter                                           | Limit Values                    | Result                          |
|-----------------------------------------------------|---------------------------------|---------------------------------|
| Purity(HPLC)                                        | 95-100 (%)                      | 99.62600 %                      |
| Specific Rotation [α] <sub>20</sub> /D(c=1 in EtOH) | 6.5-8.5 (°)                     | 8.50000 °                       |
| Appearance (I170736)                                | White to Tan Powder or Crystals | White to Tan Powder or Crystals |
| Proton NMR spectrum                                 | Conforms to Structure           | Conforms to Structure           |



John Su  
QA & QC Manager