

## **CERTIFICATE OF ANALYSIS**

## 1. Identification

Catalogue Number
A790038

Lot Number 712146240-1-1

Product Name

L-Asparagine-13C4, 15N2 Hydrate

**Synonyms** 

**Structure** 

<u>CAS Number</u> <u>Solubility</u>

202406-87-9 Aqueous Acid (Slightly), Water

(Slightly)

This Product Is Stable To Be Shipped At Room Temperature

Molecular Formula Source of Product

 $^{13}C_4H_8^{15}N_2O_3$  • N/A

Molecular Weight Purity
138.08 + 18.02 >95%

Long Term Storage Conditions 4°C

**Shipping Condition** 

100.00 - 10.02

2. Warnings

Not Determined

3. Analytical Information

| <u>Tests</u>       | <u>Specifications</u>    | Results                        |
|--------------------|--------------------------|--------------------------------|
| Appearance         | White to Off-White Solid | White to Off-White Solid       |
| NMR                | Conforms to Structure    | Conforms                       |
| C NMR              | Conforms to Structure    | Conforms                       |
| Elemental Analysis | Conforms                 | %C: 30.80, %H: 6.28, %N: 17.90 |
| HPLC Purity        | >95%                     | 99.56% (ELSD)                  |
| MS                 | Conforms to Structure    | Conforms                       |
| Isotopic Purity    | >95%                     | >99.9%                         |
| Water Content      | Report Result            | 11.5%                          |
| Specific Rotation  | Report Result            | +20.2° (c = 0.2, 1N HCI)       |

## **Additional Information**

Normalized Intensity:  $d_0 = 0.00\%$ ,  $d_1 = 0.00\%$ ,  $d_2 = 0.00\%$ ,  $d_3 = 0.00\%$ ,  $d_4 = 0.00\%$ ,  $d_5 = 0.00\%$ ,  $d_6 = 100.00\%$ 

Purity is based on the analytical results of the tests performed. NMR and Elemental Analysis (if available) may have an accuracy of ± 2%. Isotopic purity is based on mass distribution observed.

The contents of the specifications are subject to change without advance notice, and the specification values displayed here are the most up to date values.

## 4. Signatures

Reviewed by Reviewed by C of A Approved by Test Date

Retest Date

1/16/2025

1/14/2029

Swathi Reddy Toni Rantanen Christina Gouliaras

Product Quality Specialist Manager, Quality Assurance Quality Assurance Associate