

CERTIFICATE OF ANALYSIS

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1. Identification

Catalogue G596952 CAS 1323254-05-2 Number: Number:

Synonym: 2-Amino-4-

(hydroxymethylphosphinyl)butanoic Acid-d3 Product: Glufosinate-d3 Hydrochloride

Hydrochloride; DL-Phosphinothricin-d3

Hydrochloride;

Structure: O, OH Molecular Formula: .CO₂H

HCI

C5H9D3NO4P • HCI

Molecular weight:

220.61

Source of Product:

Synthetic

Solubility:

Methanol (Slightly, Heated, Sonicated), Water (Slightly)

Lot Purity: 12-NZZ-21-3 98% Number:

Storage This Product Is Stable To Be

 NH_2

Condition: 4°C Shipping Shipped At Room Temperature With Condition:

Dry Pack

2. Warning

Warning 1: Warning 2: Warning 3:

3. Analytical Information

Tests: Specifications: Results:

White to Off-White Solid **Appearance** White to Pale Beige Solid

Conforms to Structure **NMR** Conforms

Elemental Conforms %C: 27.27, %H: 6.06, %N: 6.26 Analysis

HPLC Purity Report Result 99.90% (ELSD)

MS Conforms to Structure Conforms >95% 99.8% **Isotopic Purity**

14.68% by Ion Chromatography Chloride Content Report Result

 -0.4° (c = 0.5, Water) Specific Rotation Report Result

P NMR Conforms to Structure Conforms

Normalized Intensity: d0 = 0.00%, d1 = 0.29%, d2 = 0.00%, d3 = 0.00%**Additional Information:**

99.71%

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
Swathi Reddy
R. Lari

Toni Rantanen

Reviewed By

C of A Approved By Chanell Chu

2/14/2023

Test Date

Retest Date 2/12/2027

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Charlett Gru