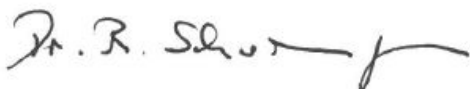


Certificate of Analysis

Product Name: Ethephon
PESTANAL™, analytical standard
Product Number: 45473
Batch Number: BCCD3952
Brand: Sigma-Aldrich
CAS Number: 16672-87-0
Formula: $\text{ClCH}_2\text{CH}_2\text{P}(\text{O})(\text{OH})_2$
Formula Weight: 144.49
Storage Temperature: 2-8 C
Expiration Date: JAN 2026
Quality Release Date: 15 FEB 2021

TEST	SPECIFICATION	RESULT
APPEARANCE (COLOR)	WHITE TO OFF WHITE	OFF-WHITE
APPEARANCE (FORM)	POWDER OR CRYSTALS	POWDER
TITRATION	98.0 - 102.0 %	99.2 %
TITRATION (METHOD)	-	ARGENTOMETRISCH AFTER O2-COMBUSTION
PURITY (HPLC AREA %)	≥ 98.0 %	100.0 %
MELTING POINT	71 - 78 C	77 C
WATER	≤ 1.0 %	0.1 %
PROTON NMR SPECTRUM	CONFORMS TO STRUCTURE	CONFORMS



Dr. Reinhold Schwenninger
Quality Assurance
Buchs, Switzerland

Sigma-Aldrich warrants that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Certificate of Analysis

Dionex Ultimate 3000 RSLC	
Pump : DGP-3600RS	Injection Time: 01.02.21 16:07
Autosampler: WPS-3000	Processed By: murthale
Detector: Corona ultra	Vial Number: RE5
Column: Dionex Acclaim Trinity P1, 3.0 um	Column S/N: -
Column Dim.: 100 x 3.0 mm	Sample Type: Unknown
Mobile Phase:	Injection Volume: 1.0 µl
%A : Acetonitrile	Flow: 0.5 ml/min
%B : Methanol	Column Temp. (°C): 35.0
%C : Ammoniumformiat 100 mM pH3.65	Run Time: 15.00 min
Gradient : see Figure 1	
Sample Prep.: 2 mg sample in 1 ml acetonitrile	

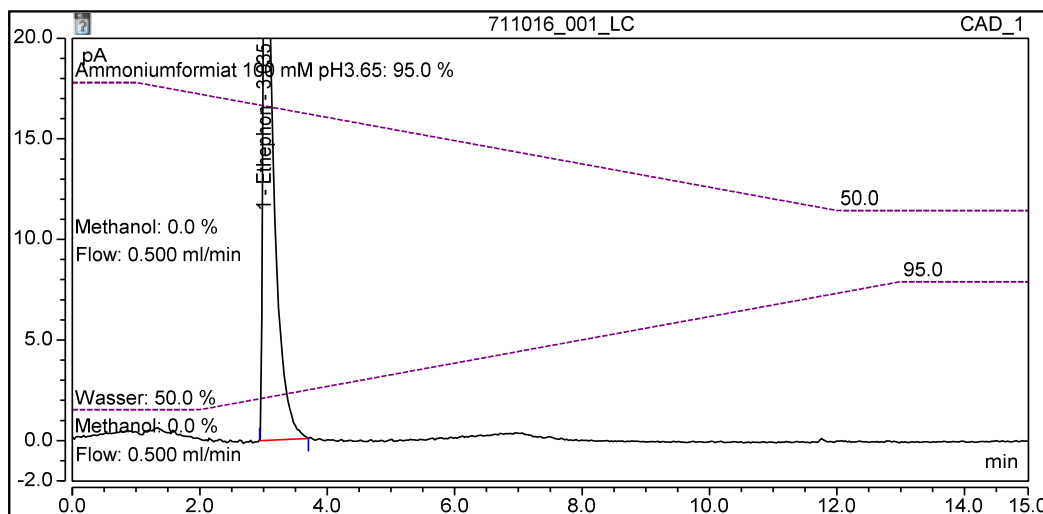


Figure 1: Zoomed Chromatogram

No.	Ret. Time min	Peak Name	Area pA*min	Height pA	Amount	Rel. Area %
1	3.035	Ethephon	5.70141	31.94850	n.a.	100.00
Total:			5.70141	31.94850		100.00

Table 1: Integration