

APPLICATION

Determination of Glyphosate and AMPA According to DIN ISO 16308



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Overview

Glyphosate is the most widely used herbicide globally and is of priority concern with many food and environmental agencies. Presented is an FMOC (Fluorenylmethyloxycarbonyl chloride) derivatization method using a reversed phase procedure.

Acknowledgement

We would like to provide special thanks to Mrs. Annegret Tischendorf from Südsachsen Wasser GmbH for contributing this application.

Column: Kinetex[®] 5 μ EVO C18 100A
Dimensions: 150 x 2.1 mm
Part No.: 00F-4633-AN
Mobile Phase: A: 2 mM Ammonium carbonate in Water
 B: Methanol

Gradient Time (min)	(% B)
0	1
4	1
10	63
11	99
14	99
14.1	1

Injection: 50 μ L

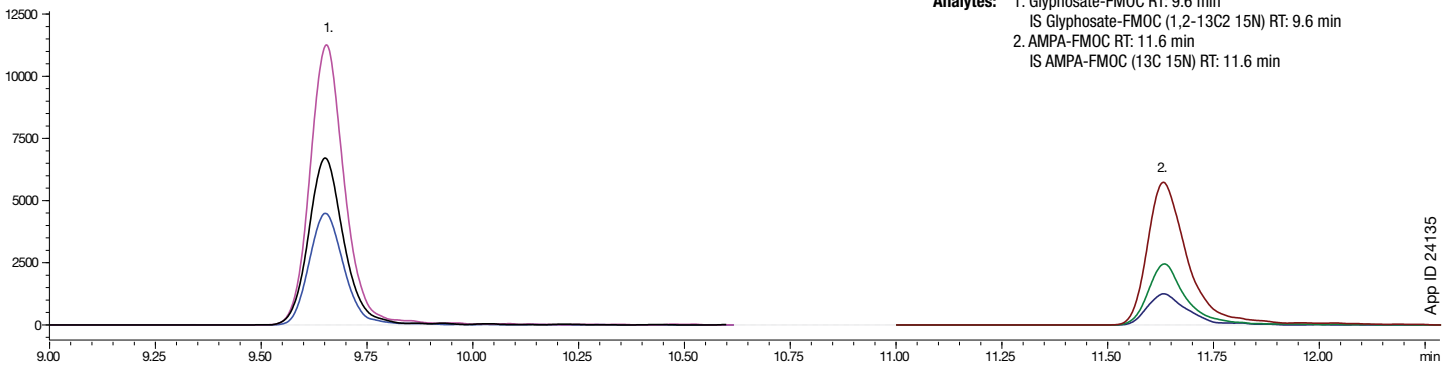
Flow Rate: 0.35 mL/min

Temperature: 40 °C

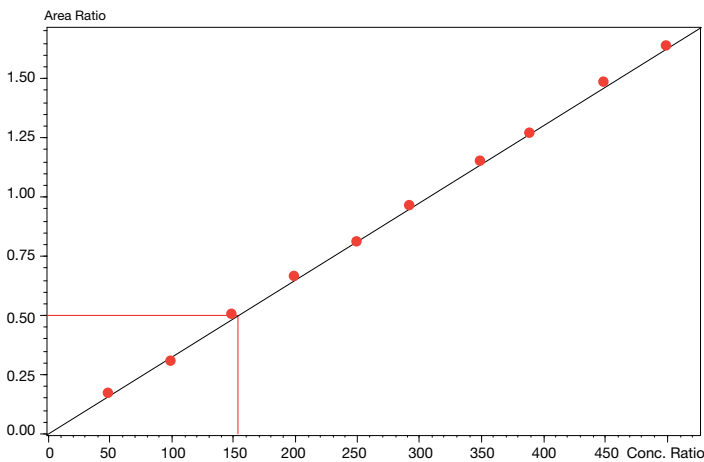
Detection: Tandem mass spectrometry

Detector: Triple Quad 8050, Shimadzu

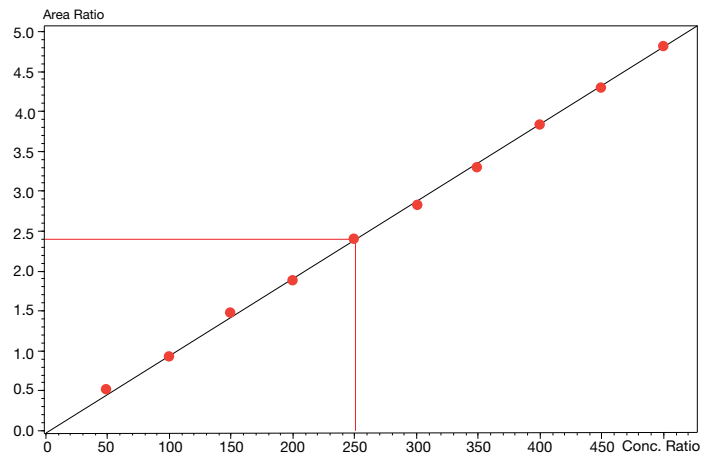
Analytes: 1. Glyphosate-FMOC RT: 9.6 min
 IS Glyphosate-FMOC (1,2-13C2 15N) RT: 9.6 min
 2. AMPA-FMOC RT: 11.6 min
 IS AMPA-FMOC (13C 15N) RT: 11.6 min



App ID 24135



Glyphosate: 10 point calibration
 Limit of Detection: 30 ng/L



AMPA: 10 point calibration
 Limit of Detection: 30 ng/L



APPLICATION

Ordering Information Kinetex[®] EVO C18 Core-Shell LC Columns

5 µm Minibore Columns (mm)				SecurityGuard [™] ULTRA Cartridges [‡]
30 x 2.1	50 x 2.1	100 x 2.1	150 x 2.1	3/pk
00A-4633-AN	00B-4633-AN	00D-4633-AN	00F-4633-AN	AJO-9298 for 2,1 mm ID

5 µm MidBore [™] Columns (mm)			SecurityGuard [™] ULTRA Cartridges [‡]
50 x 3.0	100 x 3.0	150 x 3.0	3/pk
00B-4633-YO	00D-4633-YO	00F-4633-YO	AJO-9297 for 3,0 mm ID

5 µm Analytical Columns (mm)				SecurityGuard [™] ULTRA Cartridges [‡]
50 x 4.6	100 x 4.6	150 x 4.6	250 x 4.6	3/pk
00B-4633-E0	00D-4633-E0	00F-4633-E0	00G-4633-E0	AJO-9296 for 4,6 mm ID

2.6 µm Minibore Columns (mm)				SecurityGuard [™] ULTRA Cartridges [‡]
30 x 2.1	50 x 2.1	100 x 2.1	150 x 2.1	3/pk
00A-4725-AN	00B-4725-AN	00D-4725-AN	00F-4725-AN	AJO-9298 for 2,1 mm ID

2.6 µm MidBore Columns (mm)			SecurityGuard [™] ULTRA Cartridges [‡]
50 x 3.0	100 x 3.0	150 x 3.0	3/pk
00B-4725-YO	00D-4725-YO	00F-4725-YO	AJO-9297 for 3,0 mm ID

2.6 µm Analytical Columns (mm)				SecurityGuard [™] ULTRA Cartridges [‡]
50 x 4.6	100 x 4.6	150 x 4.6		3/pk
00B-4725-E0	00D-4725-E0	00F-4725-E0		AJO-9296 for 4,6 mm ID

1.7 µm Minibore Columns (mm)			SecurityGuard [™] ULTRA Cartridges [‡]
50 x 2.1	100 x 2.1	150 x 2.1	3/pk
00B-4726-AN	00D-4726-AN	00F-4726-AN	AJO-9298 for 2,1 mm ID

[‡] SecurityGuard ULTRA Cartridges require holder, Part No.: AJO-9000

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Kinetex EVO is patented by Phenomenex. U.S. Patent Nos. 7,563,367 and 8,658,038 and foreign counterparts.

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