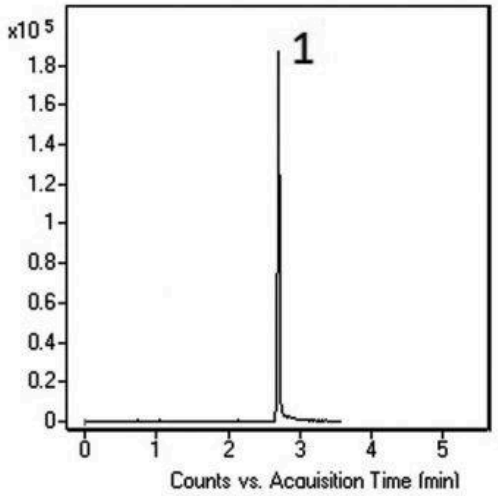
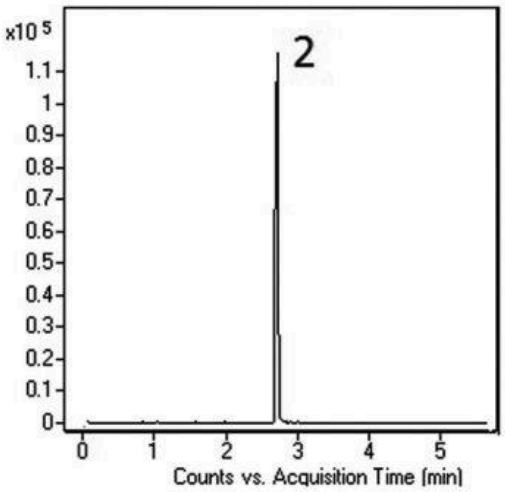
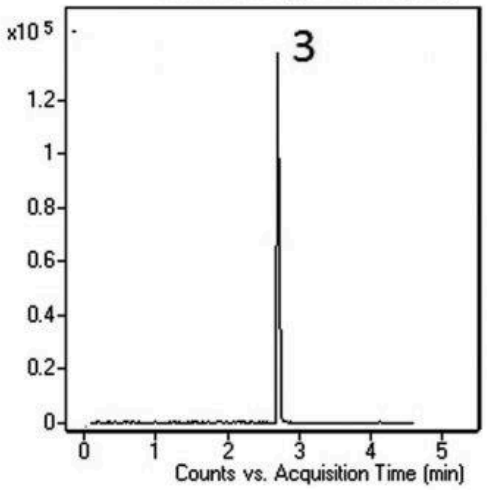
Glufosinate and N-Acetylglufosinate and Glufosinate Propanoic Acid by LCMS - AppNote

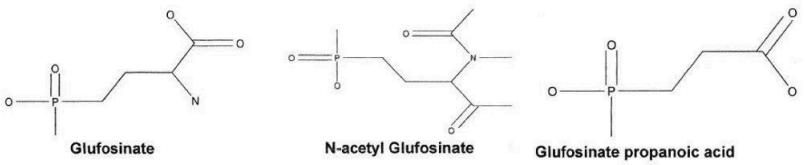
Herbicide and Metabolites
Glufosinate, N-Acetylglufosinate, and Glufosinate Propanoic Acid

Analysis of these Compounds can be problematic with other methods and poor peak shape may occur. In contrast, the Peaks obtained in this method are very sharp and symmetrical and can be applied to food products containing these types of Compounds.









Peaks:

1. Glufosinate m/z 180.0431 [M-H]–
2. N-Acetylglufosinate m/z 222.00 [M-H]–
3. Glufosinate Propanoic Acid m/z 151.00 [M-H]–

Method Conditions

Column: Cogent Diamond Hydride™, 2.2 µm, 120 Å

Catalog No.: 70200-05P-2
Dimensions: 2.1 x 150 mm

Mobile Phase:
A: DI Water / 10mM Ammonium Acetate
B: 95% Acetonitrile / 5% DI Water / 10mM Ammonium Acetate (v/v)

Gradient:

Time *(minutes)*	%B
0	90
1	90
1.2	5
5	5
6	90

Post Time: 3 minutes
Flow rate: 0.4 mL / minute
Detection: ESI – NEG - Agilent 6210 MSD TOF Mass Spectrometer
Injection vol.: 1 µL

Sample Preparation: Glufosinate (1720.64 ppm), N-Acetylglufosinate (639.2 ppm), and Glufosinate Propanoic Acid (1302.5 ppm) stock solutions were diluted 1:100 with 4:1 DI Water: Methanol
t_0 **:** 0.6 minutes

Note: Glufosinate is an Herbicide which acts by interference with the Ammonia detoxification metabolic pathway. Trade names of formulations featuring the compound include Rely®, Finale®, and Ignite®.

Attachment Herbicide and Metabolites by LC-MS pdf Download File

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