



## Herbicide and Metabolites by LCMS – AppNote

### 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.

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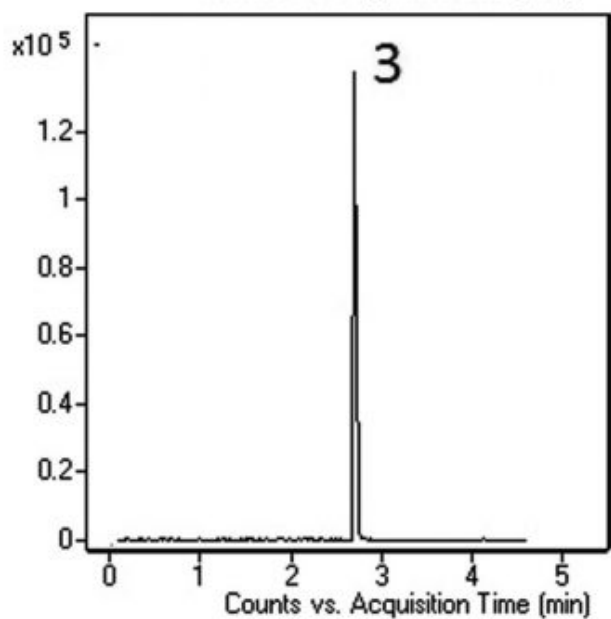
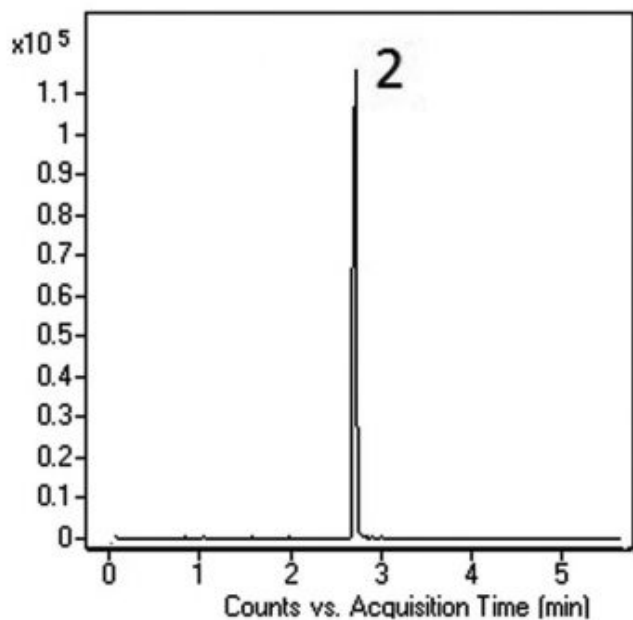
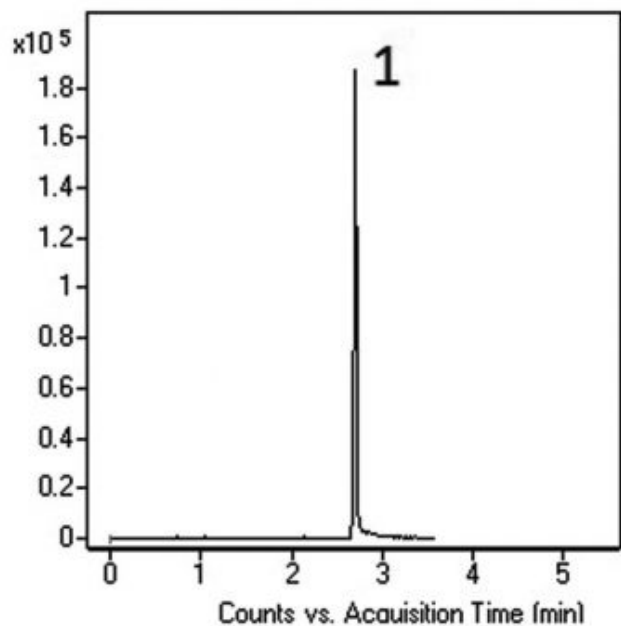
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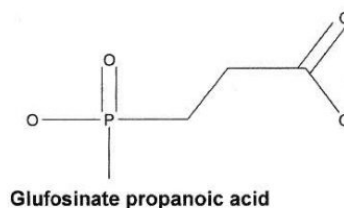
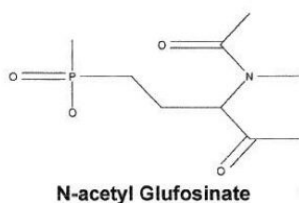
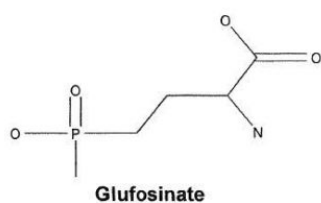
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## Peaks:

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

## Method Conditions

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

**Catalog No.:** 70200-05P-2

**Dimensions:** 2.1 x 150mm

### 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.:** 1µL

**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<sub>0</sub>:** 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](#)