HALO®

ENVIRONMENTAL

Impact of PCS on the Separation of Glyphosate and AMPA

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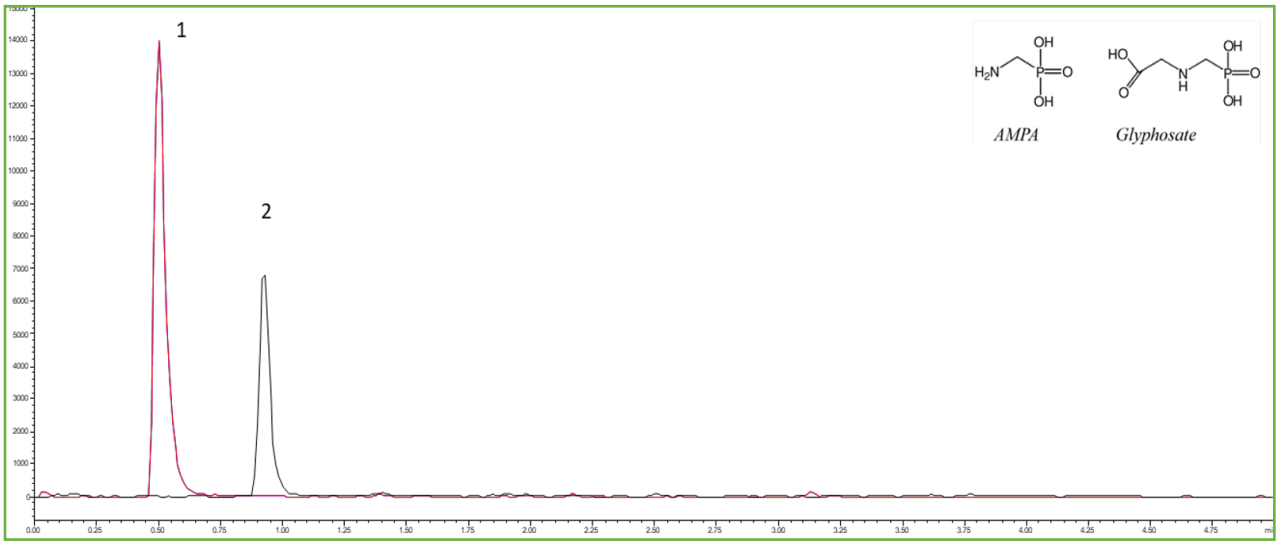

PEAK IDENTITIES:

1. AMPA (Aminomethyl-phosphonic Acid)
2. Glyphosate

TEST CONDITIONS:

Column: HALO 90 Å Phenyl-Hexyl 2.7 µm, 2.1 x 100 mm
Part Number: 92812-618
Mobile Phase A: Water/ 0.1% Formic Acid/ 5µM Methylenediphosphonic acid
Mobile Phase B: ACN/ 0.1% Formic Acid
Gradient:

Time	%B
0.0	0
1.5	0
2.0	20
4.0	40
5.0	100
5.5	100
5.6	0
9.0	END

Flow Rate: 0.4 mL/min
Temperature: 40 °C
Detection: +ESI MS/MS
Injection Volume: 0.5 µL
MS System: Shimadzu 8040 Triple Quad
LC System: Shimadzu Nexera X2

MS CONDITIONS:

Spray Voltage: 4.5 kV
Nebulizing gas: 2 L/min
Drying gas: 15 L/min
DL temp: 300 ˚C
Heat Block: 400 ˚C

The use of pesticides and herbicides has become more widespread over the years. One of the most used herbicides in the world is glyphosate. Because of the abundant use of glyphosate, there is significant amounts of this chemical in our water systems due to runoff. With the worry that glyphosate is potentially carcinogenic to humans, it is extremely important to monitor our water ways for glyphosate and the metabolite of glyphosate, AMPA. With the use of the HALO® PCS Phenyl-Hexyl phase, glyphosate and AMPA can be separated with ease under favorable MS conditions that can help boost sensitivity.

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