

Asulam in River Water

Waters Corporation

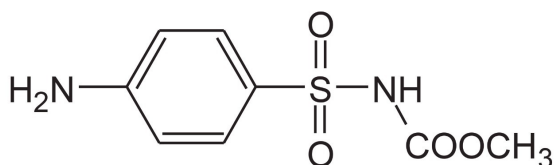
This is an Application Brief and does not contain a detailed Experimental section.

Abstract

This application brief demonstrates analysis of asulam in river water.

Introduction

The compound analyzed in this study is asulam.



ASULAM

Experimental

LC-MS Conditions

Column:	Atlantis d C ₁₈ , 2.1 x 100 mm, 3 µm
Part number:	1860001295
Mobile phase A:	15 mM Ammonium formate, pH 4.5
Mobile phase B:	Acetonitrile
Flow rate:	200 µL/min
Injection volume:	20 µL
Instrument:	Alliance 2695 Separations Module

Gradient

Time (min)	Profile	
	%A	%B
0	90	10
19	10	90

MS Conditions

Instrument:	Micromass Quattro
Ion source:	Electrospray positive and negative
Mode:	Multiple Reaction Monitoring
Source temp.:	150 °C
Desolvation temp.:	450 °C
Cone Gas:	50 L/Hr
Desolvation gas:	500 L/hr
Collision Gas:	Argon

MRM (ESI+)	Cone (V)	Coll. energy (eV)
231±156	30	10
MRM (ESI+)	Cone (V)	Coll. energy (eV)
229±197	25	15

OASIS® MCX EXTRACTION METHOD

Oasis® MCX Extraction Cartridge, 6 cc/150 mg (LP)

Part Number: 186000255

PREPARE SAMPLE:

acidify to pH 2.7

CONDITION:

5 mL methanol/1 mL water

LOAD:

250 mL sample (5 mL/min)

WASH:

2 mL 5% MeOH/water

ELUTE:

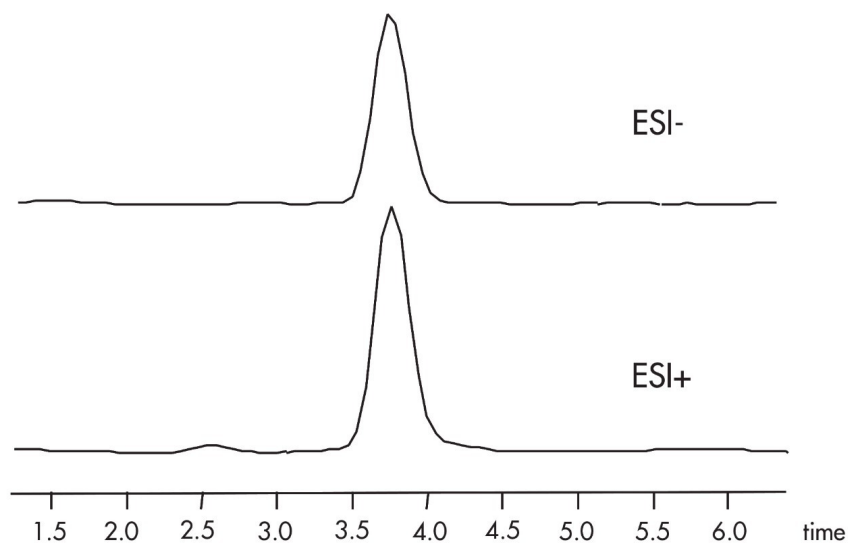
2.5 mL MeOH/MTBE/NH₄OH(22:75:3)

EVAPORATE AND RECONSTITUTE:

250 µL 20% acetonitrile

Results and Discussion

250 ng/L SPIKED RIVER WATER



Asulam recovery 1 (n=4)	
50 ng/L	81%(14%RSD)
250 ng/L	78%(7.6%RSD)
1000 ng/L	71%(12%RSD)

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