Waters™

Nota de aplicación

Carbamates in Drinking Water (Endocrine Disruptors)

Waters Corporation

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

Abstract

This application brief demonstrates the analysis of carbamates in drinking water.

Introduction

SCH₃

$$H_3C$$

$$C > N$$

$$C > N$$

$$C > C$$

$$C > N$$

$$C > C$$

Experimental

HPLC Method

Column: Waters Carbamate Analysis, 3.9 x 150 mm

Mobile phase A: Water

Mobile phase B: Methanol

Mobile phase C: Acetonitrile

Flow rate: 1.5 mL/min

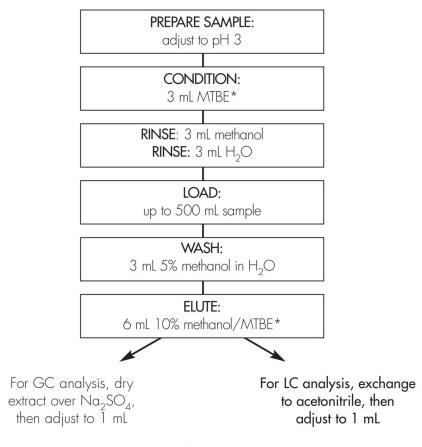
Injection volume: 75 µL

Sample: 200 mL of drinking water spiked @ 50 ng/L

Detection: Post Column Derivatization, fluorescence

OASIS® SPE METHOD FOR ENDOCRINE DISRUPTORS

Conditions for Oasis® HLB Cartridge, 6 cc, 200 mg Part Number WAT106202

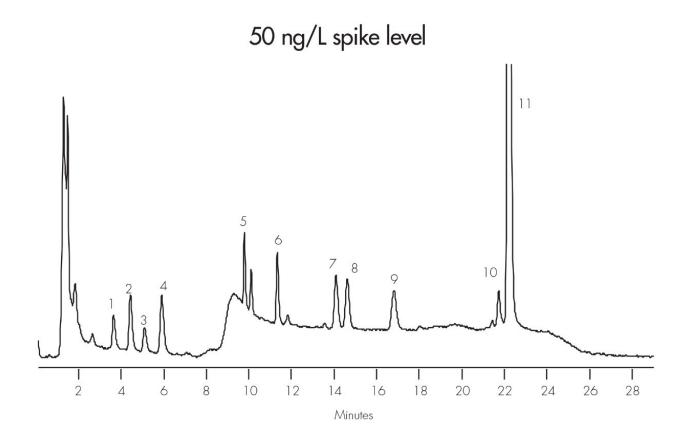


* methyl tbutyl ether diethyl ether can be used as an alternative to MTBE

Results and Discussion

Compounds	%Recovery	
	LC/PCFD*	LC/PCFD
	500 ng/L	50 ng/L
1. Aldicarb sulfoxide	54.7 (0.5)	45.7 (5.1)
2. Aldicarb Sulfone	98.7 (4.0)	101 (3.6)
3. Oxamyl	90.8 (7.0)	122 (18)
4. Methomyl	99.9 (6.4)	100 (3.2)
5. 3-Hydroxycarbofuran	98.7 (2.3)	111 (6.5)
6. Aldicarb	90.7 (9.3)	104 (5.8)
7. Propoxur	97.5 (5.6)	99.9 (5.8)
8. Carbofuran	97.2 (4.7)	104 (7.9)
9. Carbaryl	89.6 (2.2)	122 (11)
10. Methiocarb	91.6 (2.2)	120 (14)

^{*} The 500 ng/L sample SPE extracts were split and analyzed by each method LC/PCDF - LC with post column derivitization and fluorescence detection.



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