Waters™

アプリケーションノート

Triazine Herbicides in Drinking Water

Waters Corporation

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

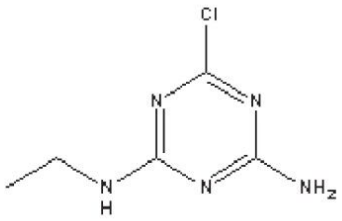
Abstract

This application brief demonstrates analysis of triazine herbicides in drinking water.

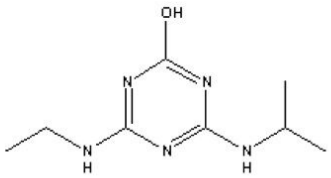
Introduction

The compounds used in this study are –

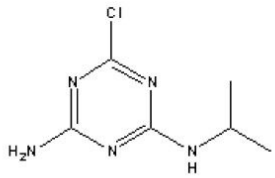
1. Desisopropylatrazine
2. Hydroxyatrazine
3. Desethylatrazine
4. Simazine
5. Cyanazine
6. Atrazine



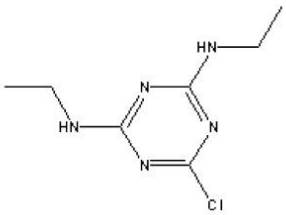
1. Desisopropylatrazine



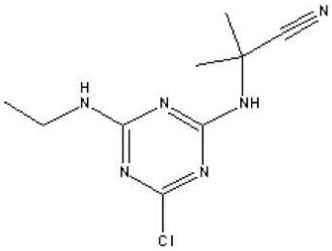
2. Hydroxyatrazine



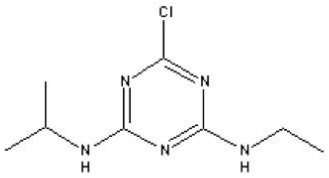
3. Desethylatrazine



4. Simazine



5. Cyanazine



6. Atrazine

Experimental

HPLC Method

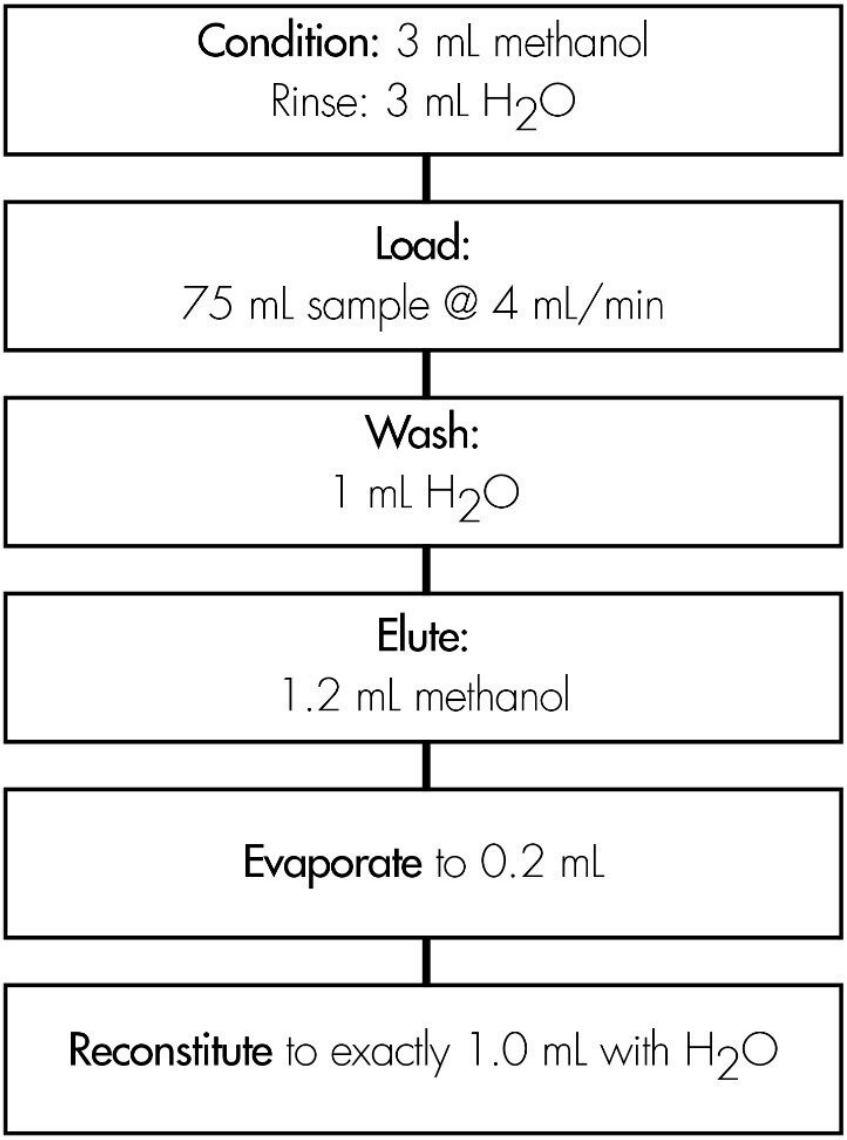
Column:	Symmetry Shield RP_8, 3.9 x 150 mm, 5 µm
Part numbers:	WAT200655
Mobile phase A:	5 mM phosphate buffer, pH 6.7/Acetonitrile 85:15
Mobile phase B:	Acetonitrile
Flow rate:	1.0 mL/min
Injection volume:	75 µL
Detection:	UV @ 214 nm (0.02 AUFS)

Gradient

Time (min)	Profile	
	%A	%B
0	100	0
2	100	0
25	30	70

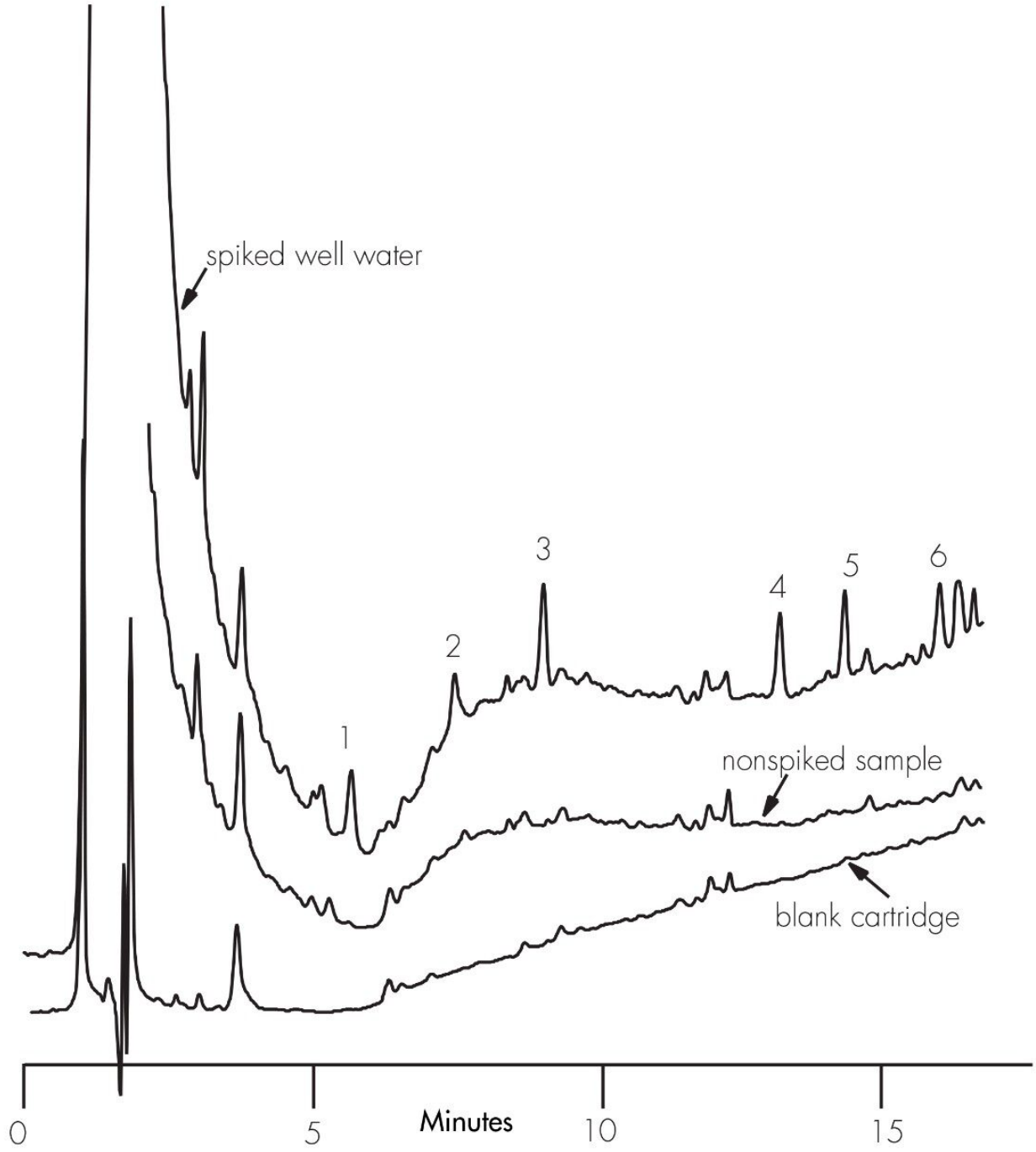
Oasis® HLB Extraction Method

Conditions for Oasis® HLB Cartridge, 3 cc, 60 mg
Part Number WAT094226



Results and Discussion

Compounds	% Recovery	
	Tap water	Tap water
	Spike level 500 µg/L 5 Replicates	**Spike level 200 ng/L 7 Replicates**
1. Desisopropylatrazine	98.4 (5.0)	95.6 (5.8)
2. Hydroxyatrazine	132 (1.3)	109 (11)
3. Desethylatrazine	106 (5.1)	104 (4.0)
4. Simazine	not determined	97.7 (3.9)
5. Cyanazine	not determined	93.1 (3.7)
6. Atrazine	101 (5.0)	101 (4.4)



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WA31763.172, June 2003