

Herbicides

Waters Corporation



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

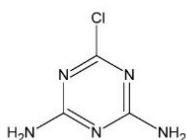
Abstract

This application brief highlights the analysis of herbicides used in weed control.

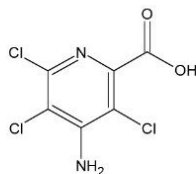
Introduction

Compounds used in this study:

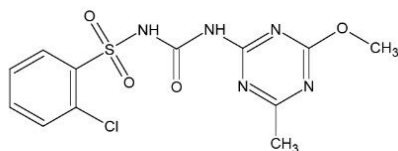
1. Atrazine-desethyl-desisopropyl
2. Picloram
3. Chlorsulfuron (unknown impurity)
4. Atrazine
5. 2,4-D



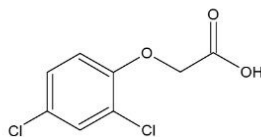
Atrazine-desethyl-desisopropyl



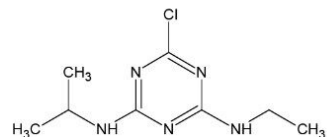
Picloram



Chlorsulfuron



(2,4-Dichlorophenoxy)acetic Acid



Atrazine

Experimental

Conditions

Column:

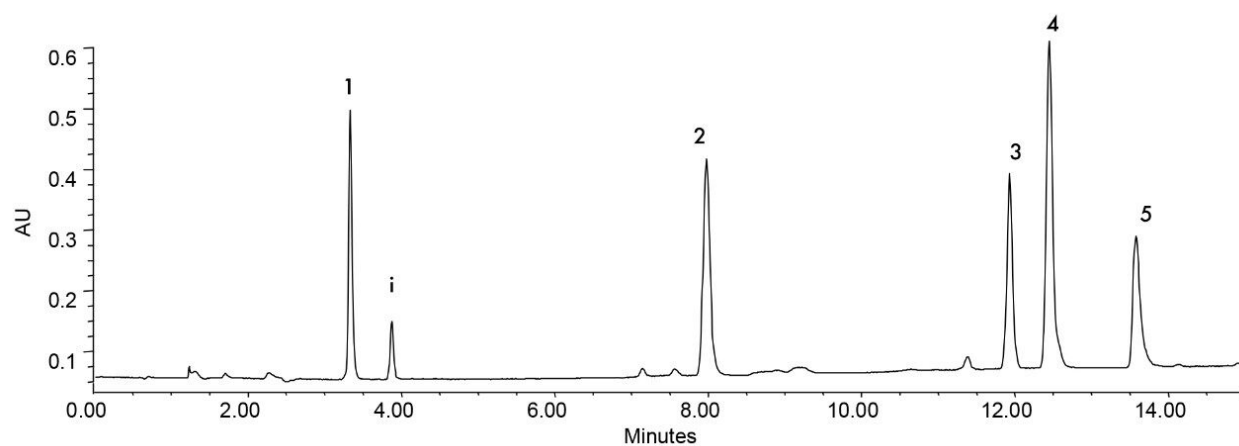
SunFire C₁₈ 4.6 x 150 mm, 5 μm (p/n: 186002559)

| | |
|-----------------------|--|
| Mobile phase A: | Water |
| Mobile phase B: | Acetonitrile |
| Mobile phase C: | 100 mM CH ₃ COO-NH ₄ + pH 4.5 |
| Flow rate: | 1 mL/min |
| Injection volume: | 10 µL |
| Sample concentration: | 4 µg/mL in water Chlorsulfuron 8 µg/mL (2,4-Dichlorophenoxy)acetic Acid 40 µg/ML |
| Temperature: | 30 °C |
| Detection: | UV @ 220 nm |
| Instrument: | Alliance 2695 with 2996 PDA |

Gradient

| Time (min) | Profile | | |
|---------------|---------|----|----|
| | %A | %B | %C |
| 0.0 | 85 | 5 | 10 |
| 15.0 | 20 | 70 | 10 |

Results and Discussion



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WA41891, May 2005