



Phenoxycarboxylic acids (pesticides)

Application Note

Environmental

Authors

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Introduction

Determination of phenoxycarboxylic acids in water using GC/MS and an Agilent VF-35ms column.



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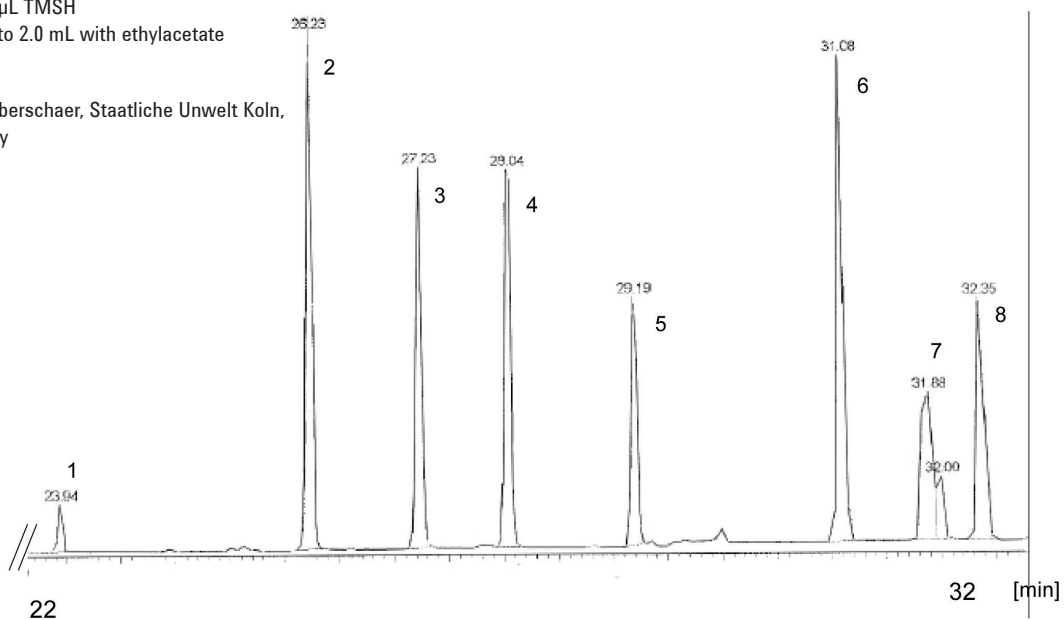
Conditions

Technique : GC-capillary
Column : Agilent FactorFour VF-35ms, 0.25 mm x 30 m fused silica (df = 0.25 µm) (Part no. CP8877)
Temperature : 60 °C (3 min), 5 °C/min, 250 °C
Carrier Gas : Helium, 56.8 kPa, 1.0 mL/min
Injector : Splitless
Injector Temperature : 250 °C
Amount Injected : 1 µL
Detection : MS; Transfer line: 290 °C;
Component conc : 16-40 µg/mL
Derivatization : as methyl esters with TMSH; reaction happens in the hot injection port
Sample Preparation : Adjust 500 mL water to pH 2
SPE cartridge: modified SDVB- 30 mg/1 mL
Condition with 1.5 mL methanol, 1.5 mL water
Apply water sample; flow rate 30 mL/min
Dry with nitrogen
Elute 4 x 0.5 mL ethylacetate into a 2 mL vial
Add 50 µL TMSH
Fill vial to 2.0 mL with ethylacetate

Courtesy : Herr Ueberschaer, Staatliche Umwelt Koln, Germany

Peak identification

1. dicamba
2. mecoprop
3. MCPA
4. dichlorprop
5. 2,4-D
6. fenoprop
7. MCPB
8. 2,4,5-T



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