

Application Report 24

US EPA Method 515 Chlorinated Acids on Equity-5

The potential health effects associated with many chlorinated acid herbicides has led to regulations regarding their use. US EPA method 515 describes the GC/ECD analysis of these compounds as their methyl ester derivatives in ground and drinking water, and lists a 5% phenyl methylpolysiloxane-type capillary for use as a primary column. In this application, 15 out of the 16 herbicides listed in method 515 were resolved on the Equity-5 column. The column offered a stable baseline and low bleed, which made it suitable for GC/ECD use.

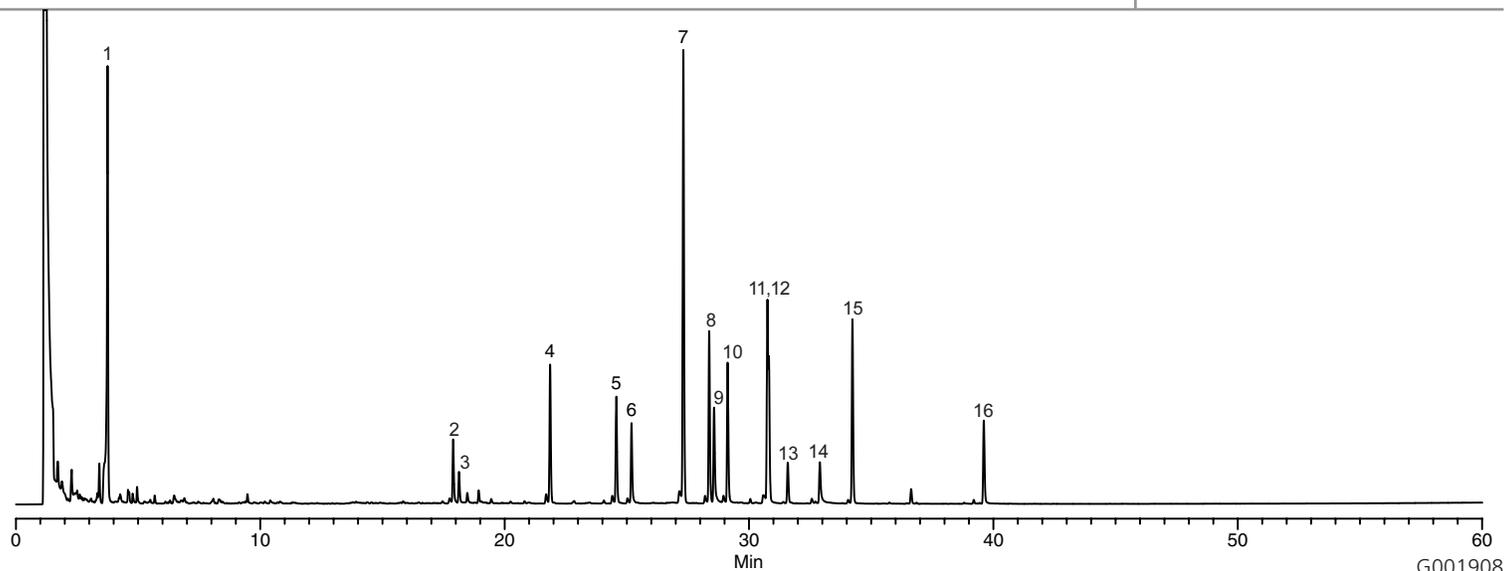
Key Words

Chlorinated acid herbicides, method 515, Equity, 28089-U

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Raw Data File Name: 515/
221BA027.D

Acquisition System: GC1777



Conditions

Column: Equity-5, 30m x 0.25mm ID, 0.25µm
Cat. No.: 28089-U
Oven: 60°C to 300°C at 4°C/min
Inj.: 250°C
Det.: ECD, 320°C
Flow: Helium, constant flow, 30cm/sec @ 60°C
Injection: 2µL, splitless 0.45 min
Liner: 4mm ID double taper
Sample: Custom mix in MTBE diluted and derivatized with diazomethane

Peak IDs

1. Dalapon
2. 3,5-Dichlorobenzoate
3. 4-Nitrophenol
4. Dicamba
5. Dichloroprop
6. 2,4-D
7. Pentachlorophenol
8. 2,4,5-TP
9. Chloramben
10. 2,4,5-T
11. Dinoseb
12. 2,4-DB
13. Bentazon
14. Picloram
15. Dacthal
16. Acifluorfen