

GC Application

ID No.: 19286

EPA 552.2 by Strata-SAX on a ZB-XLB-HT

Column: Zebron[™] ZB-XLB-HT, GC Cap. Column 30 m x 0.32 mm x 0.25 μm, Ea

Phase: Proprietary XLB Phase

Dimensions: 30 meters x 0.32 mm x 0.25 μm

Order No: 7HM-G024-11

Oven Profile: 30°C for 4 min to 50°C @ 30°C/min for 1 min to 70°C @ 15°C/min for 1 min to 115°C @ 20°C/min for 2 min to 200°C @ 30°C/min.

Carrier Gas: Constant Flow Helium, 2.3 mL/min

Injection: Pulsed :1 1 μL @ 250°C

Detection: Electron Capture (ECD) (340°C)

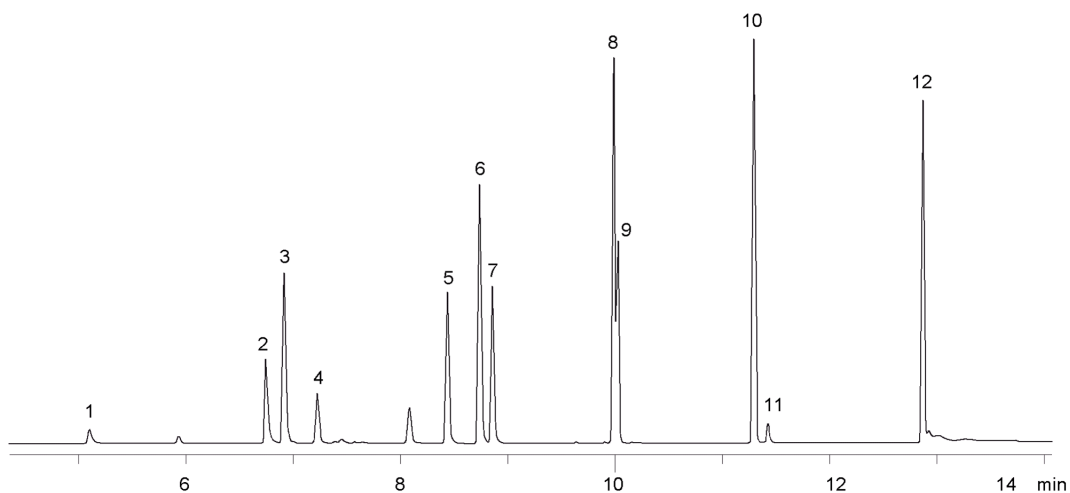
Analyst Note: Derivatization: Add 1mL of MTBE to the eluent in a screw cap vial or test tube. Heat the sample at 50°C for 2 hours. Remove and allow the sample to cool to room temperature. Slowly add 10mL of saturated sodium bicarbonate and invert the sample several times releasing carbon dioxide gas frequently. Aspirate 100μL of the organic layer and transfer to a 2mL vial with insert. Add 10μL of internal standard (1,2,3-Trichloropropane) and



Products used in this application:



19286



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ANALYTES:

- 1 Chloroacetic acid
- 2 Bromoacetic acid
- 3 Dichloroacetic acid
- 4 Dalapon
- 5 Trichloroacetic acid
- 6 Bromochloroacetic acid
- 7 1,2,3-Trichloropropane (internal standard)
- 8 Dibromoacetic acid
- 9 Bromodichloroacetic acid
- 10 Chlorodibromoacetic acid
- 11 2,3-Dibromopropionic acid (surrogate)
- 12 Tribromoacetic acid



Sample Preparation Details

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PRODUCT DESCRIPTION:

Strata® SAX (55 µm, 70 Å), 200 mg / 3 mL, Tubes , 50/Pk

Order No.: 8B-S008-FBJ

SOLID PHASE EXTRACTION (SPE) PROCEDURE:

Note: The solvent volumes shown below are for a 200 mg bed mass.

The solvent volumes will need to be adjusted for a smaller or larger bed mass.

Condition:

Load:

Wash:

Dry:

Do not let sorbent bed go dry

Elute:

Final Prep and Analysis:

Inject: 1 µL on HPLC Electron Capture (ECD) @ (340°C)

ANALYTES:	Spiked Conc. (ng/mL)	Log P	pKa	% Rec	%RSC (n=0)
1 Chloroacetic acid	0				
2 Bromoacetic acid	0				
3 Dichloroacetic acid	0				
4 Dalapon	0				
5 Trichloroacetic acid	0				
6 Bromochloroacetic acid	0				
7 1,2,3-Trichloropropane	0				
8 Dibromoacetic acid	0				
9 Bromodichloroacetic acid	0				
10 Chlorodibromoacetic acid	0				
11 2,3-Dibromopropionic acid	0				
12 Tribromoacetic acid	0				

Note: This method is designed as a convenient starting point for further investigation and can be tailored to meet your extraction goals. Call your local Phenomenex Representative for assistance in method development and optimization techniques.

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