## GC Application ID No.: 23244



## Melamine in dog food by GC/MS using a ZB-5MSplus (EIC)

Zebron<sup>™</sup> ZB-5MSplus, GC Cap. Column 30 m x 0.25 mm x 0.25 µm, Ea Column: Phase: **Dimensions:** 30 meters x 0.25 mm x 0.25 µm 7HG-G030-11 **Order No: Oven Profile:** 75° C for 1 min to 320 °C at 15 °C/min hold for 4 min

**Carrier Gas:** Constant Flow Helium, 1 mL/min Injection: Splitless :1 1 µL @ 280°C

**Detection:** Mass Selective (MSD) (320°C)

Analyst Note: Sample preparation: Combine 0.5 g of homogenized dog food with 10 mL of DEA/water/acetonitrile (1:4:5) in a 15 mL centrifuge tube. Sonicate for 30 min. Centrifuge at 5000 rpm for 10 min. Transfer 100  $\mu$ L of supernatant to an autosampler vial and evaporate to dryness using nitrogen gas. Reconstitute with 100  $\mu$ L of acetonitrile/pyridine (1:1) and then derivatize using 100  $\mu$ L of BSTFA with 1% TCMS at 70 °C for 45 min. Inject sample into the GC/MS.

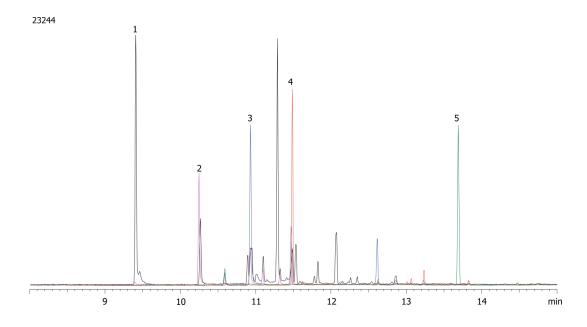
Dry dog food spiked with 100  $\mu\text{g}/\text{g}$  melamine and related compounds.

Sim mode: Cyanuric acid (345,330,346), Ammelide (344,329,345), Ammeline (328,343,329), Melamine



Products used in this application:





## **ANALYTES:**

- Cyanuric acid 1
- Ammelide 2
- 3 Ammeline
- 4 Melamine
- 5 Benzoguanamine

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