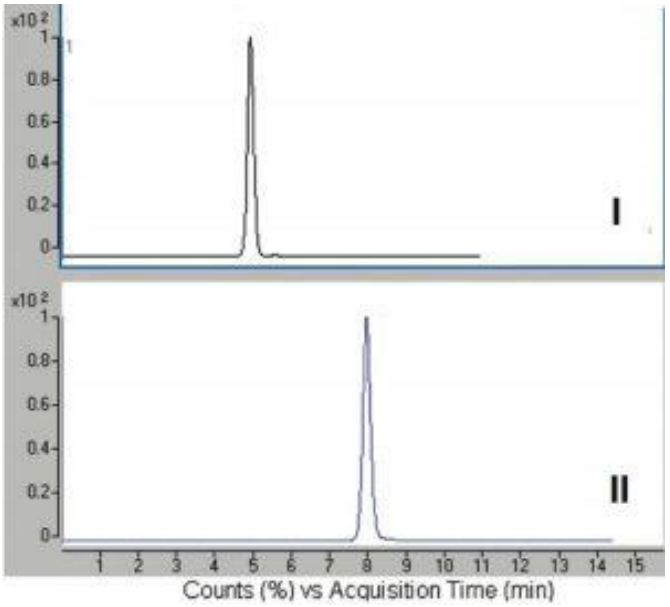
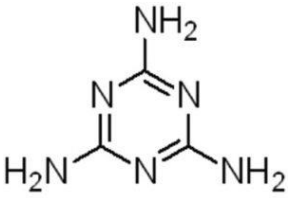
Melamine Analyzed with LC-MS - AppNote

Detect Trace Levels of Melamine

The unique chemical properties of Melamine (base functionalities) present challenges in obtaining Retention and adequate Sensitivity, when using standard HPLC Columns. In this Method, Melamine is Analyzed under Aqueous Normal Phase *(ANP)* conditions with an increased Sensitivity making it possible for detection at Trace Levels.





Peak:

Melamine m/z 127 (M+H)+

Method Conditions

Column: Cogent Diamond Hydride™, 4 µm, 10 Å
Catalog No.: 70000-15P-2
Dimensions: 2.1 x 150 mm

Mobile Phase:

- I: 60% acetonitrile / 40% DI water / 0.1% formic acid
- II: 70% acetonitrile / 30% DI water / 0.1% formic acid

Flow rate: 0.4 mL / minute
Detection: ESI – pos – Agilent 6210 MSD TOF Mass Spectrometer

Sample Preparation: 166.7 µg / mL of compound in 50% Acetonitrile / DI Water / 0.1% Acetic Acid. Run 1:1000 dilution in 80% Acetonitrile / DI Water / 0.1% Acetic Acid

t_0: 1.44 minute

Notes: *Several dogs and cats died or were seriously ill after consumption of pet foods which had been manufactured with adulterated wheat glutens. After testing of the wheat glutens it was determined that they contained significant levels of Melamine and / or several related compounds.*

Attachment No 50 Melamine Analyzed with LCMS pdf 0.2 Mb Download File

MicroSolv Technology Corporation
9158 Industrial Blvd. NE, Leland, NC 28451
Tel: (732) 380-8900
Fax: (910) 769-9435
Email: customers@mtc-usa.com
Website: www.mtc-usa.com