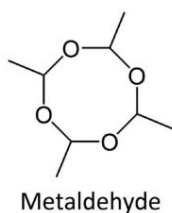
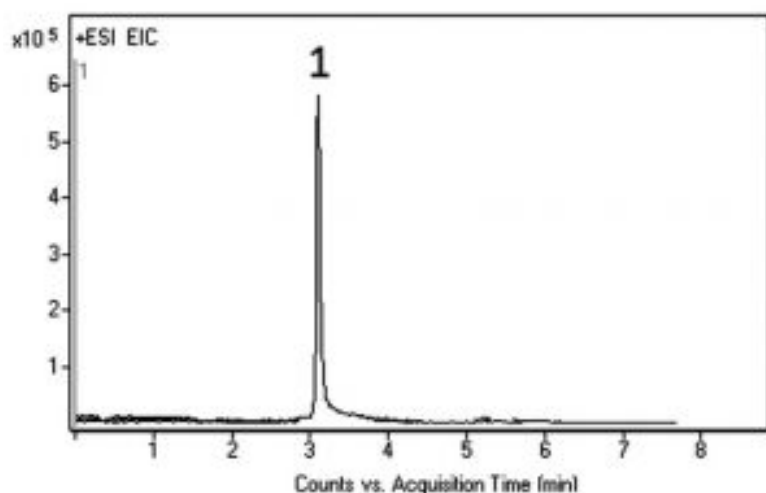


Pesticide Formulation

As Metaldehyde is a non-UV absorbing compound, other detection methods needed to be investigated besides conventional UV-HPLC. LC-MS was found to be a well-suited analysis by searching for the EIC corresponding to the $[M+H]^+$ ion. Good retention and peak shape were observed for this analyte using the Cogent Bidentate C18 2.0™ Column.



Peak:

Metaldehyde 177.1121 m/z $[M + H]^+$

Method Conditions

Column: Cogent Bidentate C18 2.0™, 2.2 μ m, 120Å

Catalog No.: 40218-05P-2

Dimensions: 2.1 x 50 mm

Mobile Phase:

A: DI Water / 0.1% Formic Acid

B: Acetonitrile / 0.1% Formic Acid

Time (minutes)	%B
0	10
3	100
6	100
7	10

Post Time: 3 minutes

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Email: customers@mtc-usa.com

Website: www.mtc-usa.com

Injection vol.: 1µL

Flow rate: 0.4mL / minute

Detection: ESI - POS - Agilent 6210 MSD TOF Mass Spectrometer

Sample: Slug pellets (containing 3.25% Metaldehyde) were ground and 800mg was transferred to a 25mL volumetric flask. A portion of 50 / 50 Solvent A / Solvent B diluent was added and the flask was sonicated for 10 minutes. Then it was diluted to mark, mixed thoroughly, and filtered with a 0.45µm Nylon Syringe Filter (MicroSolv Tech Corp.).

Note: Metaldehyde is a cyclic tetramer of Acetaldehyde. Slug pellets contain wheat as bait with a small amount of Metaldehyde. These pellets are sold widely under a variety of trade names, such as Ariotox®, Cekumeta®, Deadline®, and others.



Attachment

No 317 Metaldehyde in Slug Pellets pdf 0.2 Mb [Download File](#)