

Melamine in Animal Feed Sample Preparation

1. Intended Use

For the detection of Melamine in the following feed samples

- Cereal No. 1, Flaked four cereal grain: barley, wheat, corn, oats
- UFA 249 Prima: Dairy cow feed complement, 39% protein concentrate
- Sugar beet cattle-cake
- Soja toasted cattle-cake
- UFA 245 Prima: Dairy cow feed complement energy rich.
- Wheat Gluten
- Soybean Meal
- Corn Gluten Meal
- Poultry Meal

2. Range of Detection

2,000-50,000 ng/mL (ppb). Samples with higher concentrations must be diluted further and re-analyzed.

3. Materials/Equipment Required (Not Provided)

Pipettes capable of delivering 100 and 900 μ L

Sonicator or vortexer

Microcentrifuge capable of spinning at 10,000-13,000 x g

Microcentrifuge tubes

Glass vials with Teflon lined caps

ABRAXIS[®] Melamine Sample Extraction Suspension (PN 50005E)

ABRAXIS[®] Melamine Sample Diluent (PN 50005D)

ABRAXIS[®] Melamine ELISA Kit (PN 50005B)

4. Notes and Precautions

To eliminate matrix interference from samples, they must be diluted 1:10 in ABRAXIS[®] Melamine Sample Diluent. The ABRAXIS[®] Sample Extraction Suspension **must** be well mixed immediately prior to its addition to the sample(s).

5. Procedure

- 5.1 Weigh 1.0 gm of granular feed into appropriate glass container and add approximately 10 mL of ABRAXIS[®] Melamine Extraction Suspension
- 5.2 If sonicator is available, sonicate the sample for 1-2 minutes. If not available, vortex sample for 1-2 minutes.
- 5.3 Allow the sample to settle for 3-5 minutes and add 1 mL of sample to a microcentrifuge tube.

NOTE: some samples partition into 3 layers, always collect the middle layer.

- 5.4 Centrifuge at 10,000-13,000 x g for 2-3 minutes. Carefully remove a portion of the supernatant.
- 5.5 Dilute an aliquot of the supernatant 1:10 in ABRAXIS[®] Melamine Sample Diluent in a glass tube.

For example, adding 100µL of the extracted sample to 900 uL of the Sample Diluent.

5.6 The sample is now ready to analyze according to the procedure described in the ABRAXIS® Melamine ELISA Kit package insert.

6. Evaluation of Results

Results obtained for feed samples prepared as described above must be multiplied by a factor of 100 to account for the sample dilution. Only use results within the analytical range of the assay (20-500 ppb). Results lower than the lowest standard (20 ppb) should not be multiplied by a dilution factor and should not be reported as negative, but should be reported as < 2000 ppb Melamine detected. Results above the highest standard must be diluted and re-analyzed.

7. Performance Data

The sample preparation procedure detailed above was used with feed samples spiked with various amounts of Melamine. Recoveries were between 75 – 125 %.

8. For ordering or technical assistance contact

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