

Melamine in Infant Formula (Soy based) Sample Preparation

1. Intended Use

For the detection of Melamine in soy based powder infant formula.

2. Range of Detection

800-20,000 ng/mL (ppb). Samples with higher concentrations must be diluted further and re-analyzed.

3. Materials Required (Not Provided)

Pipettes capable of delivering 50, 100 and 900 μ L

Sonicator or vortexer

Centrifuge capable of spinning at 3,000 x g

Centrifuge tubes

Glass vials with Teflon lined caps

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

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

4. Notes and Precautions

To eliminate matrix interference from soy based infant formula powder to be tested for the presence of Melamine; samples must be prepared and diluted in Sample Extraction Suspension. Sample Extraction Suspension should be thoroughly mixed immediately prior to use.

5. Procedure

5.1. Procedure 1 (Infant Soy based Formula-powder)

5.1.1. Prepare the infant formula as indicated on sample package, for example, infant formula should be prepared at a ratio of 8.6 grams of formula per 2 ounces (60 mL) of water.

5.1.2. Add 50 μ L of reconstituted milk sample into 1.95 mL of ABRAXIS[®] Melamine Sample Extraction Suspension in a centrifuge tube.

5.1.3. Using a shaking platform, shake for 10 minutes (alternatively, sample can be vortexed several times during the 10 minute incubation)

5.1.4. Centrifuge at approximately 3,000 x g for 5 minutes.

5.1.5. The sample (top layer) is now ready to analyze according to the procedure described in the ABRAXIS[®] Melamine Kit package insert.

5.2. Procedure 2 (Infant Soy based Formula-Liquid)

5.2.1. Prepare the infant formula as indicated on sample package, for example, infant formula should be prepared at a 1:1 ratio with water (1 mL of water and 1 mL of concentrated formula).

5.2.2. Add 50 μ L of the diluted milk sample into 1.95 mL of ABRAXIS[®] Melamine Sample Extraction Suspension in a centrifuge tube.

5.2.3. Using a shaking platform, shake for 10 minutes (alternatively, sample can be vortexed several times during the 10 minute incubation)

5.2.4. Centrifuge at approximately 3,000 x g for 5 minutes.

5.2.5. The sample (top layer) is now ready to analyze according to the procedure described in the ABRAXIS[®] Melamine Kit package insert.

6. Evaluation of Results

Results obtained for powder soy based infant formula prepared as described above must be multiplied by a factor of 40 to account for the sample dilution. Only use results within the analytical range of the assay (20-500 ppb).

Results lower than lowest standard (20 ppb) should not be multiplied by dilution factor but should be reported as

< 800 ppb. Results above the highest standard must be diluted and re-analyzed.

7. Performance Data

The sample preparation procedure detailed above was used with powdered soy based infant formula (non-recalled) spiked with various amounts of Melamine. Average recovery was 127%.

8. For ordering or technical assistance contact

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