

## Glyphosate in Chip Products Sample Preparation

### 1. Intended Use:

For the detection of Glyphosate in chip products.

### 2. Sensitivity

7.5 ppb in matrix

### 3. Materials and Reagents Required

Analytical balance

Microcentrifuge tubes, 1.5 mL or 2.0 mL

Microcentrifuge

Micropipettes with disposable plastic tips

Glass vials – 4 mL and 20 mL with Teflon-lined caps

Deionized water

Serological pipettes, 5 mL or 10 mL

Rotator and/or shaker

Vortex mixer

ABRAXIS® Glyphosate Sample Diluent (PN 500082)

ABRAXIS® Glyphosate Plate ELISA Kit (PN 500205)

### 4. Notes and Precautions

This procedure is intended for use with ground chip products. Other matrices should be thoroughly validated before use with this procedure.

- Chips should be placed in a Ziploc bag and broken down or smashed into smaller pieces using a hammer or related instrument. Please wear gloves to prevent any cross-contamination.
- Analysis should be performed with the ABRAXIS® Glyphosate Plate ELISA Kit as soon as possible after extraction. Samples should not sit more than one day in plastic microcentrifuge tubes before being diluted and analyzed.
- This procedure is for research use only. It is not intended for diagnostic procedures.

### 5. Procedure

5.1 Weigh 0.5 g of ground chip sample to 20 mL glass vial.

5.2 Add 10 mL of deionized water to samples (1:20 dilution).

5.3 Vortex vigorously for 10 – 15 seconds and put samples on rotator or shaker for 10 minutes.

5.4 Remove from rotator or shaker and allow the sample to settle for at least 2 minutes.

5.5 Transfer 1.5 to 2 mL of the supernatant to an appropriately labeled microcentrifuge vial.

5.6 Centrifuge for 5 minutes at ~8000 x g. Make sure the centrifuge is properly balanced.

5.7 Add 800 µL of ABRAXIS® Glyphosate Sample Diluent to an appropriately labeled 4 mL glass vial. Add 200 µL of the supernatant (from 5.6) to the ABRAXIS® Glyphosate Diluent in the vial (1:5 dilution). Vortex.

5.8 This will then be analyzed as sample, see *Derivatization of Standards, Control and Samples* in the Test Preparation section of the ABRAXIS® Glyphosate Plate ELISA Kit user's guide.

### 6. Evaluation of Results

The ELISA results must be multiplied by a factor of 100 to account for the necessary dilution. Samples showing a concentration lower than Standard 1 (0.075 ppb) should be reported as < 7.5 ppb of Glyphosate. Samples showing a higher concentration than Standard 5 (4.0 ppb) can be reported as > 400 ppb or diluted further and re-analyzed to obtain an accurate quantitative result.

**7. For ordering or technical assistance contact:**

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