

# ISOLUTE® QuEChERS

IST Sample Preparation Products



## ISOLUTE QuEChERS fast and efficient clean up of complex samples

QuEChERS (pronounced "catchers") stands for **Q**uick, **E**asy, **C**heap, **E**ffective, **R**ugged, and **S**afe. The technique is designed to be simple and involve a minimum number of steps; but still allow for effective clean up of complex samples. The QuEChERS technique involves two stages.

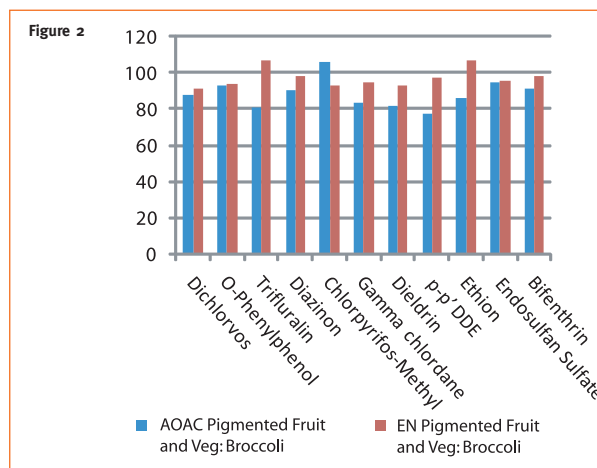
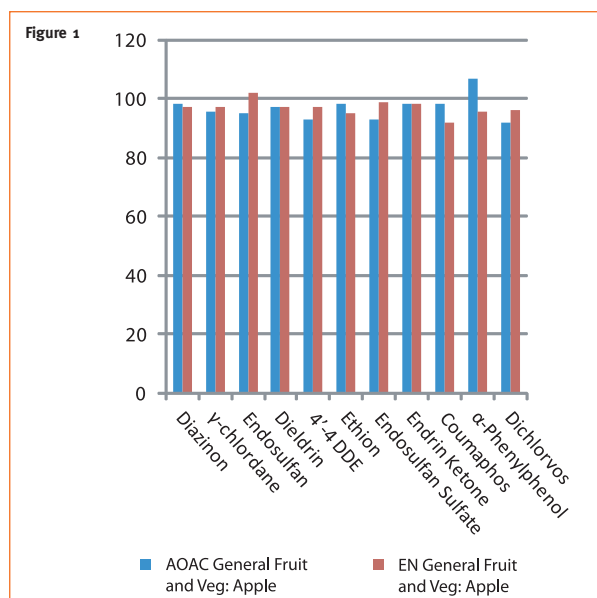
- i) a crude extraction and partitioning step using organic solvent and a salt solution
- ii) followed by further extraction and clean up using dispersive solid phase extraction.

Using Biotage QuEChERS tubes, analysts no longer need to weigh individual components, making the method even quicker and more consistent.

Biotage QuEChERS products include extraction tubes for the initial extraction and partitioning of analytes from homogenized food samples; and clean up tubes for the dispersive solid phase extraction. All Biotage QuEChERS products come packed in a rack for ease of storage and use on the bench. Additionally, solvent resistant paper labels aid hassle free sample identification.

### AOAC 2007.01 and European EN 15662 Methodologies

Biotage supplies pre-weighed extraction and clean up tubes that conform with AOAC<sup>1,2</sup> and the EU<sup>3</sup> published methods, including those for waxed and highly pigmented fruit and vegetable samples.



**Figures 1 and 2:** Pesticide suite was extracted using Biotage QuEChERS products and the relevant methodology (AOAC or EN) for apple (fig 1) and Broccoli (fig 2). In all instances, recoveries were above 75%.

Figure 3

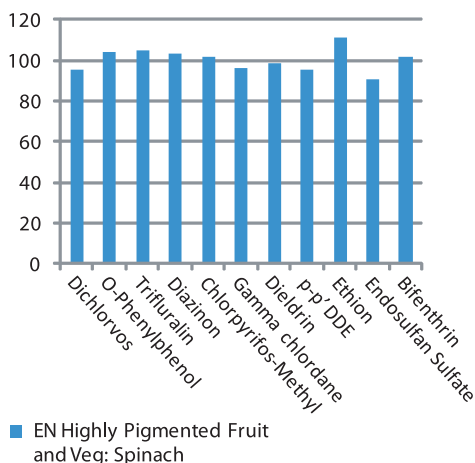
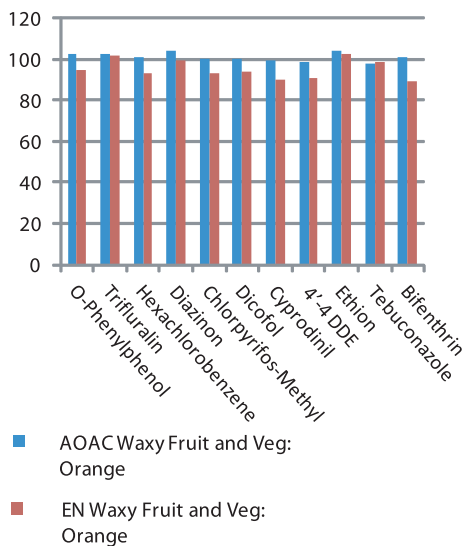


Figure 4



Figures 3 and 4: Pesticide suite was extracted using Biotage QuEChERS products and the relevant methodology (AOAC or EN) for spinach (fig 3) and orange (fig 2). In all instances, recoveries were above 80%.

#### Ordering Information Extraction Tubes

| Description                              | Part No   | Tube  | Pack Size | MgSO <sub>4</sub> | Na Acetate | Na Citrate | Na Citrate sesquihydrate | NaCl |
|--|-----------|-------|-----------|-------------------|------------|------------|--------------------------|------|
| 15 g QuEChERS AOAC 15 mL Extraction Tube | Q0010-15V | 15 mL | 25        | 6 g               | 1.5 g      |            |                          |      |
| 10 g QuEChERS EN 15 mL Extraction Tube   | Q0020-15V | 15 mL | 25        | 4 g               |            | 1 g        | 0.5 g                    | 1 g  |

#### Ordering Information Clean up Tubes

| Description  | Part No   | Tube  | Pack Size | PSA    | MgSO <sub>4</sub> (purest) | C18(EC) | GCB    |
|--|-----------|-------|-----------|--------|----------------------------|---------|--------|
| AOAC Fruit and Vegetables Clean up Tube                | Q0030-15V | 15 mL | 25        | 400 mg | 1200 mg                    |         |        |
| EN Fruit and Vegetable Clean up Tube                   | Q0035-15V | 15 mL | 25        | 150 mg | 900 mg                     |         |        |
| AOAC Waxed Fruit and Vegetables Clean up Tube          | Q0050-15V | 15 mL | 25        | 400 mg | 1200 mg                    | 400 mg  |        |
| EN Waxed Fruit and Vegetables Clean up Tube            | Q0060-15V | 15 mL | 25        | 150 mg | 900 mg                     | 150 mg  |        |
| AOAC Pigmented Fruit and Vegetables Clean up Tube      | Q0070-15V | 15 mL | 25        | 400 mg | 1200 mg                    |         | 400 mg |
| EN Pigmented Fruit and Vegetables Clean up Tube        | Q0080-15V | 15 mL | 25        | 150 mg | 900 mg                     |         | 15 mg  |
| EN Highly Pigmented Fruit and Vegetables Clean up Tube | Q0090-15V | 15 mL | 25        | 150 mg | 900 mg                     |         | 45 mg  |

#### Ordering Information Centrifuge Tube

| Description                     | Part No | Tube  | Pack Size |
|---------------------------------|---------|-------|-----------|
| 50 mL Centrifuge Tube with Rack |         | 50 mL | 25        |

#### References

- 1) AOAC Official Method 2007.01. Pesticide residues in foods by acetonitrile extraction and partitioning with magnesium sulfate.
- 2) Anastassiades, M., Lehoutay, S.J., Stajnbaher, D. and Schenk, F.J. (2003) J AOAC International 86, 412-431.
- 3) EN 15662. Foods of plant origin- Determination of pesticide residues using GC-MS and /or LC-MS/MS following acetonitrile extraction/partitioning and clean up by dispersive SPE-QuEChERS method.

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