

Standard Preparation

- 17 component pesticide standards were obtained at 300 µg/mL concentration for each component.
- Dilute 5 µL of each stock solution in 195 µL of acetonitrile (0.1% acetic acid) to create a 7.5 µg/mL spiking solution.

Sample Preparation

- Weigh out 15 g of desired food/plant sample with an [OHAUS Analytical Balance](#) and place into a 50 mL polypropylene centrifuge tube containing 15 g of 3 mm zirconium beads (Product # 30391408).
The sample does not have to be diced, a larger container can be used if larger sample quantities are required, adjust reagents accordingly.
- Add 200 µL of pesticide spiking solution to each sample to create a final solution of 100 ppb.
- Rock the tubes for 1 minute at 15 rpm using the [OHAUS Open Air Rocker](#) to ensure that the pesticide solution is evenly dispersed.
- Incubate the samples overnight at 4 °C.

Homogenization

- Add between 4–6 mL of Acetonitrile (0.1% acetic acid) to each of the samples.
- Homogenize the samples for 3 minutes at 1300 rpm (preset #3) using the [OHAUS HT Lysing Homogenizer](#).
Samples can be homogenized at the same time as long as they are safely secured in the homogenization tray. There are no manufacturer restrictions.

Pesticide Extraction

- Add 10 mL of Acetonitrile to the homogenate followed by the addition of 6.0 g magnesium sulfate and 1.5 g sodium acetate.
- Gently homogenize the sample at 300 rpm for 1 minute using the [OHAUS HT Lysing Homogenizer](#).
- Centrifuge the samples for 3000 rpm for 2 minutes on the [OHAUS FC5714](#) centrifuge with compatible rotor for 50 mL conical tubes.
- Remove the supernatant and place it into a 15 mL centrifuge tube, followed by the addition of 1.2 g magnesium sulfate, 400 mg PSA, 400 mg C18 and 400 mg graphitized carbon.
- Gently vortex for 1 minute using the [OHAUS Mini-Vortex Mixer](#).
- Centrifuge at 1500 rpm for 2 minutes to pellet the solid material on the [OHAUS FC5714](#) Centrifuge with compatible rotor for 15 mL conical tubes.
- Extract 500 µL of the supernatant and place into an auto sampler vial for GC/MS analysis.

OHAUS Products Used Within This Procedure



Analytical Balances



Open Air Rocker



HT Lysing Homogenizer



FC5714 Centrifuge



Mini-Vortex Mixer