**KINEMATICA**
Homogenizing perfected.

**FOOD & BEVERAGES**

# Sample preparation for pesticide residues.



**THE APPLICATION SCOPE / PURPOSE**

The quality control of foods such as almonds, sultanas and figs is a very important process, especially the residue analysis of pesticides. In order to obtain a meaningful analysis, the sample preparation, or the extraction of pesticides from the samples, is the key point. In addition, large quantities must be able to be processed in one batch to get a representative result.

The almonds, sultanas or figs are crushed in distilled water and wet-milled as fine as possible to extract / dissolve all the pesticides from the sample into the water. After the crushing / wet-milling process the mass is filtered and the water phase used to analyze the content of pesticides in the analytical lab.

**THE APPLICATION WORKING CONDITIONS AND EXPECTED OUTCOMES**

5 kg figs are crushed / wet milled in 7 liters distilled water for 8 minutes at a speed of 7 500 RPM. The result is a homogeneous mass with fine and very small particles. Almonds are processed in the following batch > 10 kg almonds in 16 liter distilled water for 6 minutes at 8 500 RRPM and 10 kg sultanas in 10 liters distilled water at 8 000 RPM for 5 minutes.

## THE KINEMATICA SOLUTION

POYLYTRON® PT-DD 36-60 with a strong 4 kW high frequency motor with a speed range from 50 – 12 000 RPM. 3 dispersing aggregates are used with different rotor / stator heads due to different sizes and tightness of the samples. The almonds for example will be pre-homogenized with a coarser dispersing head and fine milled with a finer head. The change of the dispersing aggregates can be done in seconds due to the unique quick coupling system.

Swiss made dispersing solutions for you. Since 1962.