

### *Melamine Analysis in Food Matrices*

Melamine is an inexpensive industrial chemical used in the manufacture of plastics, whiteboards, floor tiles, kitchenware, fire retardant fabrics, and commercial filters. Some of these melamine containing products may contact foods and leave trace levels of residues. In 2007, wheat gluten imported from China was used in the manufacture of pet food and associated with the death of a large number of dogs and cats due to kidney failure. Further investigations revealed that melamine-tainted feed were used to feed animals intended for human consumption. In August 2008, melamine was identified in Chinese infant formula and dairy products. The tainted formula has sickened over 6,000 babies in China and caused at least four infant deaths. There is a need to develop methods of detection and quantification of both melamine and cyanuric acid in foods and feeds from ppm levels down to very low ppb levels. Overview of several methods, HPLC, ELISA, GC-MS/MS, and LC-MS/MS, of analysis and quantitation will be given.

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