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## Melamine— a New Food Trend?

In March of 2007 several animals were poisoned as a result of tainted pet food. Melamine is a nitrogen-rich chemical used in the production of plastics. Because it is nitrogen-rich, and the most common way to test protein levels is to test for nitrogen, it gives the illusion of higher protein in food although it has no nutritive qualities. It maliciously found its

### What is Melamine?

A chemical rich in nitrogen used in the production of plastics, glues and whiteboards. Its molecular formula is C<sub>3</sub>H<sub>6</sub>N<sub>6</sub>.

### How is Melamine used?

Melamine has a very wide range of production uses resulting in several end products including: plastics, countertops, fabrics, housewares, flame retardants, fertilizer and cement.

### Who is affected from the recent milk contamination?

As of September 25th four infants in China have died and 13,000 have been hospitalized.

Four Hong Kong children have also fallen ill due to consumption of tainted milk powder.

Eighty percent of the sick are under the age of two. Particularly vulnerable are the infants who depend solely on milk for food.

increase profits Chinese milk producers had thinned milk products with water. In an effort to essentially fool a protein content test, melamine was added. The chemical may have entered the Chinese milk supply as far back as April of 2005, perhaps even earlier. The US Food and Drug Administration (FDA) is testing food, milk and milk derived products that may contain ingredients from China. Only one US FDA recall exists due to melamine contamination. On September 26th, the FDA released a statement identifying seven Mr. Brown coffee and milk tea products that are being recalled. Aside from that, the US food supply appears safe.

For the full FDA statement visit <http://www.fda.gov/bbs/topics/NEWS/2008/NEW01891.html>

way into the US pet food supply via wheat gluten. Pet food recalls ensued and our animals food supply was eventually deemed safe. However, the story goes on. Much of the tainted glutes were used to feed agricultural animals meant for human consumption. These animals did make their way into the human food supply however scientists have concluded there was a very low risk to human health as a result of consuming these animals. This story was a year and a half ago—the animals that consumed that tainted supply are no longer in our food chain but milk is, and milk is the latest product to test positive for melamine. It all started in early September when news of melamine contaminated infant formula in China spread to the United States. It's important to note that all legally sold US infant formula is produced in the US and was never at risk. Chinese milk-based products are the latest in the melamine trend. One report states that as many as 53,000 of China's children were adversely exposed to the additive. It's speculated that in order to



Resistant to heat and moisture, melamine is used in the production of a wide array of products.

## Endocrine Disruptors increasing in our Environment

While melamine in plastics has a desirable affect as it pertains to construction and use; hormone disruptors in plastics can have an adverse health affect and are continuously being scrutinized to better understand how they interact with human biology. The human body is incredibly gifted in being able to keep processes in balance. Our endocrine system is an amazing array of chemical messengers that are sent throughout the body to control many of life's functions. An endocrine disruptor is a synthetic hormone that can mimic our own hormones and affect how our body functions. There are known endocrine disruptors such as DDT, PCBs and some pesticides and there are suspected endocrine disruptors, such as plasticizers. Exposure occurs through various modalities. Chemical and manufacturing processes, as well as burning plastics and other materials are all capable of releasing these disruptors in to the air. These disruptors can also leach through plastics. To date there are conflicting studies as to whether or not these disruptors have a significant adverse affect on human health. Recently, the FDA has concluded that Bisphenol-A an ingredient in plastics and suspected endocrine disruptor, does not pose a significant risk to human health. Studies continue in an effort to better understand what, if any, affect these chemicals have on the human endocrine system.

For additional information visit. <http://edkb.fda.gov> and [www.nrdc.org](http://www.nrdc.org)

## Analysis of the Month

### Estrogenic Compounds

For the month of October DataChem is offering Estrogenic compound analysis using **NIOSH 5044 for 10% off the current rate.** For further details contact us at [info@datachem.com](mailto:info@datachem.com). For a complete list of our Salt Lake laboratories services visit us at [www.datachem.com](http://www.datachem.com)

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