

Omega-3 public safety specification standard moves forward

19-Jan-2011 - Setting a specification standard for safe levels of contaminants in omega 3s requires understanding the hazard and correctly measuring exposure in order to assess risk.

During GOED Exchange 2011, a global community of scientists, regulators and executives met and discussed progress in establishing a new specification standard for contamination levels in omega 3 fish oil. As part of the settlement with plaintiffs of the Prop 65 lawsuit brought in California, GOED and the fish oil industry have pursued rigorous investigations into the measurement and methods for determining "safe harbor" levels for contaminants.

Dr. Claire Kruger, CEO and director of Health Sciences at Spherix, outlined a conceptual equation for evaluating public safety: hazard + exposure = risk. Kruger explained: *"We need to understand the hazard, we need to marry that understanding with the degree of exposure, and then we can assess the risk."* Kruger emphasized that public safety relies on controlling the risk of exposure, not on eliminating the hazard.

Dr, Kruger also voiced the necessity for setting the new standard at a level considered safe for the most sensitive sub-populations, in this case prenatal fetuses and infants.

Low levels

Colin Garrioch, Business Development Manager for Nutrasource Diagnostics Inc., shared the combined results of past studies conducted on contaminant levels in omega 3s. Although 2010 research results had not yet been analyzed, Garrioch's 2006–2009 combined-study results clearly indicated that most substances tested well below current California and US EPA safety thresholds, not only for PCBs but also for other heavy metals and dioxins.

Attendee Robert Orr, chairman of Ocean Nutrition Canada and GOED member, pointed out that marine sources measuring above the threshold, although called "fish oil" in the media, were cod liver oil and shark oil, and not oil from anchovies, salmon or other sources commonly used in omega-3 consumer products.

New technology

Because contaminant levels do vary from source to source, new forms of measurement for improving the traceability of marine oils were discussed. Dr. Marit Aursand, head of the Processing Technology Group at SINTEF, introduced new NMR spectroscopy technology that can authenticate four source variables:

- (1) the species of different marine oils,
- (2) their geographical origin,

(3) whether the source was wild or farmed, and

(4) the process history.

This authentication provides a method for verifying traceability data and improves transparency in the industry. Aursand stressed that continuing to populate the database with source referents is the next step in accomplishing the overall goal of Norwegian Research Council Project No: 178264, which is to establish a tool for official verification of traceability data on marine crude oils.

While a new GOED-approved specification standard is not yet in place, research needed to set such a standard, establish methods for evaluating risk and track traceability data is all well under way.