New Cod Liver Oil Interlab Study Results

In 2010 CIL conducted an international Interlaboratory study on two Cod liver oil standards, one natural and one fortified with dioxins, furans and PCBs. Cod liver oil is a common vitamin supplement, popular in Europe due to the high levels of omega fatty acids. Concern is that environmental contaminants may be present in the cod liver oil, either from environmental contamination or natural occurrence. Commercial Norwegian cod liver oil was procured and tested by TestAmerica in Knoxville, TN, to determine the levels of naturally occurring contaminants, including dioxins, furans and PCBs. Known amount of dioxins, furans and PCBs were then spiked into a sub-sample of the analyzed cod liver oil, and further tested to confirm final spiked levels.

Laboratories in North America, Europe, Asia and Australia analyzed the two standards and submitted their results. Submitted data was analyzed by TRIUM Inc. (Alberta, Canada) for consensus values. These values can be found in the Information files for the individual product listings:

EDF-5463  Cod Liver Oil Reference Material
EDF-5462  Fortified Cod Liver Oil Reference Material

The commercial cod liver oil sample was found to have measurable levels of dozens of polychlorinated biphenyls (PCBs), as well as the predominant brominated diphenyl ethers (BDEs). In the fortified standard, the dioxin and furan levels measured were equivalent to the amounts expected from the spiking procedure, however, the PCB levels in many cases exceeded the spike, due to the level of contaminants already present in the cod liver oil.

With the growing concern over the widespread use of dietary supplements, these cod liver oil reference materials provide laboratories with check samples for their analysis in these difficult matrices. The cod liver oil reference materials join our fish, soil, sediment and fly ash reference materials as we expand the SRM line. Please continue to look to CIL for new and innovative Reference Materials standards, and contact your local CIL representative if there is a specific SRM of interest.