Chapter 25: Methyl Mercury

Updated 5/31/01

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Potential Food Safety Hazard

The draft Fish and Fishery Products Hazards and Controls Guide (February 16, 1994) listed methyl mercury as a potential safety hazard for bonito, halibut, Spanish mackerel, king mackerel, marlin, shark, swordfish, and bluefin tuna. The selection of these species was based on historical data on levels of methyl mercury found in fish consumed in the U.S. The selection was also based on an FDA action level of 1.0 ppm in the edible portion of fish.

While FDA has not changed the 1.0 ppm action level, the agency is re-evaluating it in light of significant new data on the health effects of methyl mercury from consumption of fish. These data have become available since the action level was developed (FDA, 2001).

Control Measures

When the action level re-evaluation is completed, FDA will, among other things, update this Guide by including advice on how to assess the significance of a potential methyl mercury hazard in fish, and what controls, if any, are necessary to ensure the safety of fish in this regard (FDA, 2001).

FDA Guidelines

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<tr>
<th>Product</th>
<th>Guideline</th>
<th>Reference</th>
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<tr>
<td>In edible portion of</td>
<td>1 ppm methyl</td>
<td>FDA, 1996</td>
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<tr>
<td>the fish</td>
<td>mercury</td>
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While FDA has not changed the 1.0 ppm action level, the agency is re-evaluating it in light of significant new data on the health effects of methyl mercury from consumption of fish. These data have become available since the action level was developed (FDA, 1998).
Analytical Procedures

- Mercury (methyl) in fish and shellfish: Gas chromatographic method (AOAC, 1995a).
- Mercury (methyl) in seafood: Liquid chromatographic - atomic absorption spectrophotometric method (AOAC, 1995c).

References


