Tolerable levels for melamine established at a WHO meeting

GENEVA- International experts have established a tolerable daily intake (TDI) for melamine, the implicated chemical found recently in contaminated milk products. The TDI is the outcome of a meeting organized by the World Health Organization (WHO) held this week in Ottawa, Canada to address the issue. The TDI is lower than previous TDIs suggested for melamine by some national food safety authorities.

"We expect this could better guide the authorities in protecting the health of their public," said WHO Director for Food Safety, Dr Jørgen Schlundt, at the closing of the WHO Expert Meeting.

The international experts gathered by WHO have not set a "safe" level of melamine but they have established a "tolerable" level. Melamine is a contaminant that should not be in food however sometimes it is unavoidable. TDI represents the tolerable amount of unavoidable contaminant in food that a person can ingest on a daily basis without appreciable health risk. The TDI is meant to help national authorities set safe limits in food for withdrawal purposes should melamine be detected as a result of intentional adulteration.

The TDI for melamine has been established at 0.2 mg/kg body weight. Based on this, it leads a 50 kg person to a tolerable amount of 10 mg melamine per day.

The TDI applies to melamine alone. The TDI for cyanuric acid alone remains at 1.5 mg/kg body weight. Co-occurrence of melamine with cyanuric acid seems to be more toxic, however data are not adequate to allow the calculation of a health-based guidance value for this co-exposure.

"At the same time the limits for melamine in infant formula (1 part per million or ppm) and in other foods (2.5 ppm) introduced by many countries provide a sufficient margin of safety as compared to the TDI," added Dr. Schlundt.

The WHO Expert Meeting to review toxicological aspects of melamine and cyanuric acid was held in Ottawa, Canada, 1-4 December 2008. Twenty-one experts attended this meeting.

The executive summary of the meeting will be made available on the WHO Food Safety web page on the melamine contamination event: