

Advice 39-2009 of the Scientific Committee of the FASFC on antimony contamination of sugar.

Antimony (Sb) is an element belonging to the same family as arsenic in the periodic table. The trivalent form of antimony is the most common and most stable. For the general population, dietary intake is the major route of exposure.

Antimony concentrations of up to 1.4 mg/kg were measured in a batch of sugar (6,000 tons).

The contamination source of the sugar is unknown.

The Scientific Committee was requested to estimate the risk to the population (adults and children) of the consumption of sugar contaminated with antimony to a value of up to 1.4 mg/kg and estimate the risk to children who have consumed soft drinks contaminated with this sugar.

Sugar consumption contaminated with antimony to a concentration of 1.4 mg/kg led to a mean exposure of respectively 0.38 µg/kg body weight (bw)/day for adults and of 7.9 µg/kg bw/day for children. The average exposure of children consuming contaminated soft drink at a level of 168 µg/kg is estimated at 2.5 µg/kg bw/day.

The WHO has proposed, in 1994, a Tolerable Daily Intake (TDI) value equal to 0.86 µg/kg bw/day and subsequently, in 2003, a value (not confirmed) of 6 µg/kg bw/day.

Depending on the scenario and given the many uncertainties firstly on the toxicological reference value (TDI) and, secondly, on what really happened in this incident, it can be concluded that exposure was probably lower than the toxicological reference value and without significant impact on health. The consequences of an exposure that might have exceeded the toxicological reference value are uncertain, and probably low if any.

The full text is available on this website in dutch and in french, respectively under the section "Wetenschappelijk Comité/Adviezen" and "Comité scientifique/Avis".