

Consumer Council
Submission to LegCo Panel on
Food Safety and Environmental Hygiene on
“Regulation of the level of arsenic in dried food products”

1. The Consumer Council (CC) welcomes the Panel's discussion on the regulation of the level of arsenic in dried food products. CC would like to take the opportunity to brief the Panel on the results CC's recent test on of dried food products and to put forward its views concerning regulation.

CC's test on shredded squids

2. Recently, CC conducted a test on 65 dried meat products (including shredded squid and dried fish products) available in the local market. Test items included heavy metals, preservatives, colouring matters and microbiological quality.
3. Of the 23 shredded squid and dried fish products tested, 8 shredded squids were detected with arsenic ranging from 12.7 mg/kg to 35.3 mg/kg, and 1 dried fish was detected with arsenic at 7.7 mg/kg.
4. According to the Food Adulteration (Metallic Contamination) Regulations, the maximum permitted levels of arsenic (as As_2O_3) in shellfish (including squid) and fish are 10 mg/kg and 6 mg/kg respectively. CC forwarded the test results to the Centre for Food Safety (CFS) for them to follow up on whether the arsenic level in the samples would exceed the legal limits.
5. In CFS's reply to CC, it was pointed out that since shredded squid and dried fish were dried products, their water content would have been greatly reduced and thus affected their original arsenic ratios. When determining the permitted level of arsenic in those products, the factor of water reduction during the production process might have to be taken into account. However, CC has not received any information on what the permitted level of arsenic in those products should be after the water reduction factor has been taken into account.
6. Because of the great variation in the arsenic levels among different samples, CC warned consumers in the “CHOICE” magazine report that according to the Provisional Tolerable Weekly Intakes (PTWI) of inorganic

arsenic of the Joint FAO/WHO Expert Committee on Food Additives (JECFA), an adult consuming a few or more packages of the sample found with the highest level of arsenic (assuming 10% of the total arsenic content would be inorganic arsenic) per week might have exceeded the PTWI.

7. It should be emphasized that the PTWI of JECFA quoted by CC was referring to the weekly intake amount for the human body (and this reference standard was subsequently confirmed by CFS). It is a different standard from the statutory permitted level, but there is no conflict between the two.

CC's views on arsenic level of dried food products

8. CC is of the view that there should be clear definition and guideline on the arsenic level of dried food products in the Regulations. If there is a conversion standard to calculate the permitted level of arsenic in food after dehydration, it should be disclosed to consumers and the trade. However, CC opines that no matter whether squid products are fresh or dried, the arsenic in the food will be ingested by consumers and the arsenic content will not be diminished by the dehydration process. For that reason, the permitted level of arsenic should not differ substantially for different forms.
9. Consumers' health and safety should be the first priority when setting the statutory permitted limit. Although dried squid samples found with high arsenic content in the test were considered to be within legal limit, CC has the following suggestion. If consumption of a certain quantity of a particular food product may result in after considering the water reduction factor, the PTWI of JECFA being exceeded and therefore pose a threat to consumers' health, a more stringent limit should be adopted when setting the permitted level. In the case of shredded squids in particular, they are ready-to-eat products and will not be re-hydrated before consumption. These practical considerations should be taken into account when limits are set.

8 May 2007