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Health Canada's Proposal to Update the Maximum Level for Total Arsenic in Fruit Juice and Fruit Nectar

Notice of Proposal – *List of Contaminants and Other Adulterating Substances in Foods*

Reference Number: NOP/ADP C-2021-2

April 9, 2021



Canada 

Summary

Food contaminants and other adulterating substances are chemicals that may be present in foods at levels that could impact the overall safety and/or quality of foods. These substances can either be inadvertently or naturally present in foods or, in some cases, intentionally added for fraudulent purposes. Establishing a prohibition or maximum level (ML) is a form of risk management that may be employed to reduce exposure to a particular chemical contaminant in foods. Canadian prohibitions and MLs for chemical contaminants in food are set out in Part 1 and Part 2, respectively, of the [List of Contaminants and Other Adulterating Substances in Foods](#), which is incorporated by reference into section B.15.001 of Division 15 of the [Food and Drug Regulations](#) (the Regulations). Maximum levels are also set out in the [List of Maximum Levels for Various Chemical Contaminants in Foods](#), which is maintained on Health Canada's website. All prohibitions and MLs for contaminants in food are established by Health Canada's Food Directorate based on scientific evidence and in consultation with stakeholders and are enforceable by the Canadian Food Inspection Agency.

The [List of Contaminants and Other Adulterating Substances in Foods](#) specifies an ML of 0.1 parts per million (ppm) total arsenic in fruit juice and fruit nectar products on an as consumed basis. If these foods contain arsenic at concentrations above these values, they are considered adulterated and in violation of the [Food and Drugs Act](#) and [Regulations](#).

The existing ML for total arsenic in fruit juice and fruit nectar was established many decades ago. Since that time, the use of arsenical pesticides on fruit and fruit trees has been discontinued. The existing ML does not reflect the concentrations of arsenic typically found in these types of foods today.

Health Canada is proposing to update the existing ML for total arsenic in fruit juice and fruit nectar. The Department intends to establish two lower MLs, expressed as inorganic arsenic, for juice and nectar products on an as consumed basis of: 0.01 ppm for fruit juice and fruit nectar, except grape juice and grape nectar; and 0.03 ppm for grape juice and grape nectar.

It is the intention of Health Canada to modify Part 2 of the [List of Contaminants and Other Adulterating Substances in Foods](#) as **outlined** below.

Proposed Modifications to Part 2 of the *List of Contaminants and Other Adulterating Substances in Foods*

Item No.	Column 1 Substance	Column 2 Food ¹	Column 3 Maximum Level
1.1	Arsenic, total	(3) Beverages, except fruit juice, fruit nectar, grape juice and grape nectar	(3) 0.1 p.p.m. applied to products as consumed
1.2	Arsenic, inorganic (sum of arsenite (As III) and arsenate (As V))	(4) Fruit juice, except grape juice; Fruit nectar, except grape nectar	(4) 0.01 p.p.m. applied to products as consumed
		(5) Grape juice; Grape nectar	(5) 0.03 p.p.m. applied to products as consumed
¹ Maximum levels also apply to the food when it is used as an ingredient in other foods.			

Rationale

Arsenic is naturally occurring in the environment and is found at low levels in many types of foods. The concentrations of arsenic in foods sold in Canada are low and have been stable for many years. However, long-term exposure to very high levels of inorganic arsenic may contribute to a possible increased risk of certain cancers and other adverse health effects.

Health Canada is committed to ensuring that dietary exposure to food contaminants is as low as reasonably achievable. Fruit juice is a primary source of arsenic exposure in Canadian children. To minimize dietary exposure and potential health risks associated with arsenic for these particular age groups, Health Canada is proposing to lower the existing ML for arsenic in fruit juice and fruit nectar.

The two proposed, lower MLs are expressed on an inorganic, rather than total, arsenic basis given that inorganic forms of arsenic are of greater concern to human health and are most common in fruit juice and fruit nectar.

Grape juice and grape nectar naturally contain higher concentrations of inorganic arsenic than other types of fruit juice and fruit nectar. Canadian monitoring data demonstrate that the proposed MLs are as low as reasonably achievable based on the fruit juice and fruit nectar type. The proposed, lower MLs are considered more health protective and will help minimize dietary exposure to inorganic arsenic from these foods to as low as possible for each juice type.

The proposed MLs will apply to fruit juice and fruit nectar on an as consumed basis. The MLs would also apply to the relevant juice or nectar portion of blended beverages or other food products.

Other Relevant Information

The proposed, updated ML for inorganic arsenic in fruit juice and fruit nectar, except grape juice and grape nectar, aligns with the United States Food and Drug Administration's [proposed action level of 0.01 ppm inorganic arsenic in apple juice](#).

The Codex Alimentarius Commission, European Commission and Food Standards Australia New Zealand have not established MLs for arsenic in fruit juice and fruit nectar.

Implementation and Enforcement

The proposed changes will be effective on the day on which they are published in Part 2 of the [List of Contaminants and Other Adulterating Substances in Foods](#). Health Canada proposes to publish the changes to the list following the close of the 75-day comment period, provided that no data or information regarding the proposed changes are submitted that would potentially alter the proposal. Changes to the list will be announced via a Notice of Modification, which will be published on [Health Canada's website](#).

The Canadian Food Inspection Agency is responsible for the enforcement of the *Food and Drugs Act* and its associated regulations with respect to foods.

Contact Information

For additional information or to submit comments related to this proposal, please contact:

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If communicating by email, please use the words "**Arsenic ML for fruit juice and fruit nectar (NOP/ADP-C-2021-2)**" in the subject line of your email. Health Canada is able to consider information received by **June 22, 2021**, 75 days from the date of this posting.