

## HEAVY METALS IN FOOD

**(I) Maximum limits for inorganic arsenic, mercury, tin, cadmium and antimony**

Contaminant	Food	Maximum Limits (ppm)	Regulation / Schedule No. (under Food Regulations)
<b>Inorganic Arsenic</b>	Seaweed	2	Regulation 31
	Polished rice	0.2	
	Husked rice	0.35	
	Fish	2	Effective from 1 April 2020, the maximum limit of 1 ppm for arsenic (total) in "Fish, crustaceans and molluscs" under the Tenth Schedule no longer apply. (SFA circular dated 17 Mar 2020, "Maximum Limits for Marine Biotoxins, Inorganic Arsenic, and Methanol in Food")
	Crustaceans	2	
	Molluscs	1	
<b>Mercury</b>	Predatory fish <sup>1</sup>	1	Regulation 31
	Other fish or fish product	0.5	
	Salt	0.1	Regulation 31 (effective from 1 October 2021)
	Any other food	0.05	Regulation 31
	Edible fungi, fresh or cooked	0.5	Effective from 1 Sept 2020. (SFA circular dated 11 Aug 2020, "Maximum Residue Limits Established for Mercury, Bromate and Mycotoxins in Food")
	Edible fungi, dried	5	
<b>Tin</b>	Any food	250	Regulation 31
<b>Cadmium</b>	Molluscs	1	Regulation 31
	Dried mushrooms	1	
	Seaweed	2	
	Cocoa or cocoa products	0.5	Regulation 31 (effective from 1 October 2021)
	Salt	0.5	
	Any other food	0.2	
<b>Antimony</b>	Any food	1	Regulation 31

<sup>1</sup> The species of predatory fish are as follows (from Fifteenth Schedule, Food Regulations):

- 1 Anglerfish (*Lophius species*)
- 2 Atlantic catfish (*Anarhichas lupus*)
- 3 Bonito (*Sarda sarda*)
- 4 Eel (*Anguilla species*)
- 5 Emperor, orange roughy or rosy soldierfish (*Hoplostethus species*)
- 6 Grenadier (*Coryphaenoides rupestris*)
- 7 Halibut (*Hippoglossus hippoglossus*)
- 8 Kingklip (*Genypterus capensis*)
- 9 Marlin (*Makaira species*)
- 10 Megrim (*Lepidorhombus species*)
- 11 Mullet (*Mullus species*)
- 12 Pike (*Esox lucius*)
- 13 Pink cusk eel (*Genypterus blacodes*)
- 14 Plain bonito (*Orcynopsis unicolor*)
- 15 Poor cod (*Tricopterus minutes*)
- 16 Portuguese dogfish (*Centroscymnus coelolepis*)
- 17 Ray (*Raja species*)
- 18 Redfish (*Sebastes marinus, S. mentella, S. viviparus*)
- 19 Sail fish (*Istiophorus platypterus*)
- 20 Scabbard fish (*Lepidopus caudatus, Aphanopus carbo*)
- 21 Seabream or pandora (*Pagellus species*)
- 22 Shark (all species)
- 23 Snake mackerel (*Lepidocybium flavobrunneum, Ruvettus pretiosus, Gempylus serpens*)
- 24 Sturgeon (*Acipenser species*)
- 25 Swordfish (*Xiphias gladius*)
- 26 Tuna (*Thunnus species, Euthynnus species, Katsuwonus pelamis*).

**(II) Maximum limits for arsenic (total) and lead (Tenth Schedule, Food Regulations)**

Type of Food	Arsenic(As) (ppm)	Lead (Pb) (ppm)
(a) Beverages —		
(1) Ale, beer, cider, perry, porter, stout	0.2	0.2
(2) Brandy, gin, rum, whisky and other alcoholic liquor and Chinese wine exceeding 40.0% v/v alcohol at 20°C	0.2	0.2
(3) Wine, Chinese wine, liqueur, alcoholic cordial or cocktail	0.2	0.2
(4) Alcoholic liquor not otherwise specified	0.2	0.2
(5) Concentrated soft drinks intended for consumption after dilution	0.5	1
(6) Concentrates used in the manufacture of soft drinks	0.5	2

(7) Fruit and vegetable juice, not including lime and lemon juice	0.2	0.3
(8) Lime and lemon juice	0.2	1
(9) Beverages not specified above	0.1	0.2
b) Other Food —		
(1) Baking powder, Cream of Tartar	2	2
(2) Canned fish and meat, meat extract and hydrolysed protein	1	2
(3) Caramel	5	5
(4) Chemicals used as ingredients or in the processing or preparation of food —		
(a) For which the B.P. or B.P.C. specifies a limit	Current B.P. or B.P.C. Limit	
(b) Other chemicals	2	10
(5) Chicory, dried or roasted	1	2
(6) Cocoa powder (calculated on dry, fat-free substance)	1	2
(7) Coffee beans	1	2
(8) Colouring matter —		
(a) Part I — Synthetic Organic Colours	3	10
(b) Part II — Other Colours (on dry matter) except caramel	5	20
(9) Curry powder	1	2
(10) Dried herbs and spices (including mustard)	1.5	2
(11) Dried or dehydrated vegetables	1	2
(12) Edible gelatin	2	2
(13) Edible oils and fats	0.1	0.1
(13A) Fat spreads and blended spreads	0.1 (Effective from 1 October 2021)	0.04 (Effective from 1 October 2021)
(14) Eggs, preserved or salted	1	2
(15) Fish, crustaceans and molluscs	Please refer to the maximum limits for inorganic arsenic in Section (I)	2
(16) Flavourings	1	1.5
(17) Fresh fruits and vegetables	1	1
(18) Fruits, fruit products and vegetables in tins	1	1
(19) Ice-cream, ice lollies and similar frozen confections	0.5	0.5

(20) Infant formula	0.1	0.01 (applicable to infant formula as consumed)
(20A) Baby food	0.1	0.2
(21) Milk and milk products in tins	0.1	0.3
(22) Pickles	1	2
(23) Sugar —		
(a) Refined white sugar (sulphated ash not more than 0.03%) and anhydrous dextrose and dextrose monohydrate	1	0.5
(b) Others (including sugar syrups)	1	2
(24) Tea	1	2
(25) Tomato ketchup and other sauces	1	2
(26) Tomato puree, paste or powder containing 25% or more total solids	2	2
(27) Other food not specified above	1	2

### Revision history

1. 1 October 2021 – (a) Added these entries in Section (I): Maximum limits for mercury and cadmium in salt; (b) Added a new food category “13(A) Fat spreads and blended spreads” and associated maximum limits for arsenic and lead in Section (II), as these provisions have been included in the Food Regulations via the Food (Amendment) Regulations 2021.

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