**MINISTRY OF HEALTH AND FAMILY WELFARE**

**(Food Safety and Standards Authority of India)**

**Notification**

New Delhi, dated the 1st August, 2011

F.No. 2-15015/30/2010 Whereas in exercise of the powers conferred by clause (i) of sub section (2) section 92 read with section 20 of Food Safety and Standards Act, 2006 (34 of 2006) the Food Safety and Standards Authority of India proposes to make Food Safety and Standards Regulations in so far as they relates to Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011, and;

Whereas these draft Regulations were published in consolidated form at pages 1 to 776 in the Gazette of India Extraordinary Part III – Section 4 dated 20th October 2010 inviting objections and suggestions from all persons likely to be affected thereby before the expiry of the period of thirty days from the date on which the copies of the Gazette containing the said notification were made available to the public;

And whereas the copies of the Gazette were made available to the public on the 21st October 2010;

And whereas objections and suggestions received from the stakeholders within the specified period on the said draft Regulations have been considered and finalized by the Food Safety and Standards Authority of India.

Now therefore, the Food Safety and Standards Authority of India hereby make the following Regulations, namely,-

FOOD SAFETY AND STANDARDS (CONTAMINANTS, TOXINS AND RESIDUES) REGULATIONS, 2011

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## CHAPTER 1
## GENERAL

1.1: Short title and commencement-

1.1.1: These regulations may be called the Food Safety and Standards (Contaminants, toxins and Residues) Regulations, 2011.

1.1.2: These regulations shall come into force on or after 5th August, 2011

1.2: Definitions-

1.2.1: In these regulations unless the context otherwise requires:

1. "Crop contaminant" means any substance not intentionally added to food, but which gets added to articles of food in the process of their production (including operations carried out in crop husbandry, animal husbandry and veterinary medicine), manufacture, processing, preparation, treatment, packing, packaging transport or holding of articles of such food as a result of environmental contamination

## CHAPTER 2
## CONTAMINANTS, TOXINS AND RESIDUES

2.1 : METAL CONTAMINANTS

2.1.1

1. Chemicals described in monographs of the Indian Pharmacopoeia when used in foods, shall not contain metal contaminants beyond the limits specified in the appropriate monographs of the Indian Pharmacopoeia for the time being in force.

2. Notwithstanding the provisions of regulation 2.1.1 (1), no article of food specified in Column 2 of the table below shall contain any metal specified in excess of the quantity specified in Column 3 of the said table:

Table

| Name of the metal contaminants | Article of food | Parts per Million by weight |
|---|---|---|
| (1) | (2) | (3) |
| 1. Lead | (i) Beverages; | |
| | Concentrated soft drinks (but not including concentrates used in the manufacture of soft drinks) | 0.5 |
| | Fruit and vegetable juice (including tomato juice, but not including lime juice and lemon juice) | 1.0 |
| | Concentrates used in the manufacture of soft drinks, lime juice and lemon juice | 2.0 |
| | (ia) Baking powder | 10 |
| | (ib) Edible oils and fats | 0.5 |
| | (ic) Infant Milk substitute and Infant foods | 0.2 |
| | (id) Turmeric whole and powder | 10.0 |
| | (ii) Other foods | |
| | Anhydrous dextrose and dextrose monohydrate, edible oils & fats, refined white sugar (sulphated ash content not exceeding 0.03 per cent) | 0.5 |
| | Ice-cream, iced lollies and similar frozen confections | 1.0 |
| | Canned fish, canned meats, edible gelatin, meat extracts and hydrolysed protein, dried or dehydrated vegetables (other than onions) | 5.0 |
| | All types of sugar, sugar syrup, invert sugar and direct consumption coloured sugars with sulphated ash content exceeding 1.0 per cent | 5.0 |
| | Raw sugars except those sold for direct consumption or used for manufacturing purpose other than the manufacture of refined sugar. | 5.0 |
| | Edible molasses, caramel liquid and solid glucose and starch conversion products with a sulphated ash content exceeding 1.0 per cent | 5.0 |
| | Cocoa powder | 5.0 on the dry fat free substance |
| | Yeast and yeast products | 5.0 on the dry Matter |
| | Tea, dehydrated onions, dried herbs and spices flavourings, alginic acid, alignates, agar, carrageen and similar products derived from seaweed | 10.0 on the dry matter |
| | Liquid pectin, chemicals not otherwise specified, used as ingredients or in the preparation or processing of food | 10.0 |
| | Food colouring other than caramel | 10.0 on the dry colouring matter |
| | Solid pectin | 50.0 |
| | Hard boiled sugar confectionery | 2.0 |
| | Iron fortified common salt | 2.0 |
| | Corned beef, luncheon meat, Cooked Ham, Chopped meat, Canned chicken, Canned mutton and Goat meat and other related meat products | 2.5 |
| | Brewed vinegar and Synthetic vinegar | Nil |
| | (iii) Foods not specified | 2.5 |

| (1) | (2) | (3) |
|---|---|---|
| 2. Copper | (i) Beverages: | |
| | Soft drinks excluding concentrates and Carbonated water | 7.0 |
| | Carbonated water | 1.5 |
| | Toddy | 5.0 |
| | Concentrates for soft drinks | 20.0 |
| | (ii) Other Foods | |
| | Chicory-dried or roasted, coffee beans, flavourings/pectin liquid | 30.0 |
| | Colouring matter | 30.0 on dry colouring matter |
| | Edible gelatin | 30.0 |
| | Tomato ketchup | 50.0 on the dried total solids |
| | Yeast and yeast products | 60.0 on the dry matter |
| | Cocoa powder | 70.0on the fat free substance |
| | Tomato puree, paste, powder, juice and cocktails | 100.0 on the dried tomato solid |
| | Tea | 150.0 |
| | Pectin-solid | 300.0 |
| | Hard boiled sugar confectionery | 5.0 |
| | Iron Fortified Common Salt | 2.0 |
| | Turmeric whole and powder | 5.0 |
| | Juice of orange, grape, apple, tomato, pineapple and lemon | 5.0 |
| | Pulp and pulp products of any fruit | 5.0 |
| | Infant milk substitute and Infant foods | 15.0(But not less than 2.8) |
| | Brewed Vinegar and Synthetic vinegar | Nil |
| | Caramel | 20 |
| | (iii) Foods not specified | 30.0 |
| 3. Arsenic | (i) Milk | 0.1 |
| | (ii) Beverages : | |
| | Soft drink intended for consumption after dilution except carbonated water | 0.5 |
| | Carbonated water | 0.25 |
| | Infant Milk substitute and Infant foods | 0.05 |
| | Turmeric whole and powder | 0.1 |
| | Juice of orange, grape, apple, tomato, pineapple and lemon | 0.2 |
| | Pulp and pulp products of any fruit | 0.2 |
| | Preservatives, anti-oxidants, emulsifying and stabilising agents and synthetic food colours | 3.0 on dry matter |
| | Ice-cream, iced lollies and similar frozen confections | 0.5 |
| | Dehydrated onions, edible gelatin, liquid pectin | 2.0 |

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| (1) | (2) | (3) |
|---|---|---|
| | Chicory-dried or roasted | 4.0 |
| | Dried herbs, finings and clearing agents, solid pectin all grades, spices | 5.0 |
| | Food colouring other than synthetic colouring. | 5.0 on dry colouring matter |
| | Hard boiled sugar confectionery | 1.0 |
| | Iron Fortified Common Salt | 1.0 |
| | Brewed Vinegar and Synthetic Vinegar | 0.1 |
| | (iii) Foods not specified | 1.1 |
| 4. Tin | (i) Processed and canned products | 250.0 |
| | (i-a) Hard boiled sugar confectionery | 5.0 |
| | (i-aa) Jam, Jellies and Marmalade | 250 |
| | Juice of orange, apple, tomato, pineapple and lemon | 250 |
| | Pulp and pulp products of any fruit | 250 |
| | (i-b) Infant Milk substitute and Infant foods | 5.0 |
| | (i-c) Turmeric whole and powder | Nil |
| | (i-d) Corned beef, Luncheon meat, Cooked Ham, Chopped meat, Canned chicken, Canned mutton and Goat meat | 250 |
| | (ii) Foods not specified | 250 |
| 5. Zinc | (i) Ready-to-drink beverages | 5.0 |
| | Juice of orange, grape, tomato, pipeapple and lemon | 5.0 |
| | Pulp and pulp products of any fruit | 5.0 |
| | (i-a) Infant milk substitute and Infant foods | 50.0 (but) not less than 25.0) |
| | (ii) Edible gelatin | 100.0 |
| | (ii-a) Turmeric whole and powder | 25.0 |
| | (iii) Fruit and Vegetable products | 50.0 |
| | (iii-a) Hard boiled sugar confectionery | 5.0 |
| | (iv) Foods not specified | 50.0 |
| 6. Cadmium | (i) Infant Milk substitute and Infant foods | 0.1 |
| | (ii) Turmeric whole and powder | 0.1 |
| | (iii) Other foods | 1.5 |
| 7. Mercury | Fish | 0.5 |
| | Other foods | 1.0 |
| 8. Methyl Mercury (Calculated as the element) | All foods | 0.25 |
| 9. Chromium | Refined Sugar | 20 ppb |
| 10. Nickel | All hydrogenated, patially hydrogenated, interesterified vegetable oils and fats such as vanaspati, table margarine, bakery and industrial margarine, bakery shortening, fat spread and partially hydrogenated soyabean oil | 1.5 |

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2.2 Crop contaminants and naturally occurring toxic substances

2.2.1

1. No article of food specified in column (2) of the Table below shall contain any crop contaminant specified in the corresponding entry in column (1) thereof in excess of quantities specified in the corresponding entry in column (3) of the said table :

| S. No | Name of the Contaminants | Article of Food | Limit µg/kg |
|---|---|---|---|
| 1. | Aflatoxin | All articles of food | 30 |
| 2. | Aflatoxin $M_1$ | Milk | 0.5 |
| 3. | Patulin | Apple juice & Apple juice ingredients in other beverages | 50 |
| 4. | Ochratoxin A | Wheat, barley & rye | 20 |

2. Naturally occurring Toxic Substances.

The toxic substances specified in column (1) of the Table below, which may occur naturally in any article of food, shall not exceed the limit specified in the corresponding entry in column (2) of the said Table :-

| S.No | Name of substance | Maximum limit |
|---|---|---|
| 1 | Agaric acid | 100ppm |
| 2 | Hydrocyanic acid | 5ppm |
| 3 | Hypericine | 1ppm |
| 4 | Saffrole | 10ppm |

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2.3: Residues

2.3.1: Restriction on the use of insecticides.

1) Subject to the Provisions of regulation 2.3.1 (2), no insecticides shall be used directly on articles of food

Provided that nothing in this regulation shall apply to the fumigants which are registered and recommended for use as such on articles of food by the Registration Committee, constituted under section 5 of the Insecticides Act, 1968 (46 of 1968).

2) The amount of insecticide mentioned in Column 2 on the foods mentioned in column 3, shall not exceed the tolerance limit prescribed in column 4 of the Table given below :

| Sl.No. | Name of Insecticides | Food | Tolerance limit mg/kg.ppm) |
|---|---|---|---|
| (1) | (2) | (3) | (4) |
| 1 | Aldrin, dieldrin (the limits apply to aldrin and dieldrin singly or in any combination and are expressed as dieldrin) | Foodgrains | 0.01 |
| | | Milled Foodgrains | Nil |
| | | Milk and Milk products | 0.15 (on a fat basis) |
| | | Fruits and Vegetables | 0.1 |
| | | Meat | 0.2 |
| | | Eggs | 0.1 (on a shell free basis) |
| 2 | Carbaryl | Fish | 0.2 |
| | | Foodgrains | 1.5 |

| (1) | (2) | (3) | (4) |
|---|---|---|---|
| | | Milled food grains | Nil |
| | | Okra and leafy vegetables | 10.0 |
| | | Potatoes | 0.2 |
| | | Other vegetables | 5.0 |
| | | Cottonseed (whole) | 1.0 |
| | | Maize cob (kernels) | 1.0 |
| | | Rice | 2.50 |
| | | Maize | 0.50 |
| | | Chillies | 5.00 |
| 3 | Chlordane (residue to be measured as cis plus trans chlordane) | Food grains | 0.02 |
| | | Milled food grains | Nil |
| | | Milk and milk products | 0.05 (on a fat basis) |
| | | Vegetables | 0.2 |
| | | Fruits | 0.1 |
| | | Sugar beet | 0.3 |
| 4 | D.D.T. (The limits apply to D.D.T., D.D.D. and D.D.E. singly or in any combination) | Milk and milk products | 1.25 (on a fat basis) |
| | | Fruits and vegetables including potato | 3.5 |
| | | Meat, poultry and fish | 7.0 (on a whole product basis) |
| | | Eggs | 0.5 (on a shell free basis) |
| 5. | D.D.T. (singly) | Carbonated Water | 0.001 |
| 6. | D.D.D. (singly) | Carbonated Water | 0.001 |
| 7. | D.D.E. (singly) | Carbonated Water | 0.001 |
| 8 | Diazinon | Foodgrains | 0.05 |
| | | Milled foodgrains | Nil |
| | | Vegetables | 0.5 |
| 9. | Dichlorvos (content of di- chloroacetaldehyde (D.C.A.) be reported where possible) | Foodgrains | 1.0 |
| | | Milled foodgrains | 0.25 |
| | | Vegetables | 0.15 |
| | | Fruits | 0.1 |
| 10. | Dicofol | Fruits and Vegetables | 5.0 |
| | | Tea (dry manufactured) | 5.0 |
| | | Chillies | 1.0 |
| 11. | Dimethoate (residue to be determined as dimethoate and expressed as dimethoate) | Fruits and Vegetables | 2.0 |
| | | Chillies | 0.5 |

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| (1) | (2) | (3) | (4) |
|---|---|---|---|
| 12. | Endosulfan (residues are measured and reported as total of endosulfan A and B and endosulfan-sulphate) | Fruits and Vegetables<br>Cottonseed<br>Cottonseed oil (crude) | 2.0<br>0.5<br>0.2 |
| | | Bengal gram | 0.20 |
| | | Pigeon Pea | 0.10 |
| | | Fish | 0.20 |
| | | Chillies | 1.0 |
| | | Cardamom | 1.0 |
| 13 | Endosulfan A | Carbonated Water | 0.001 |
| 14 | Endosulfan B | Carbonated Water | 0.001 |
| 15 | Endosulfan-Sulphate | Carbonated Water | 0.001 |
| 16. | Fenitrothion | Foodgrains | 0.02 |
| | | Milled foodgrains | 0.005 |
| | | Milk and Milk Products | 0.05 (on a fat basis) |
| | | Fruits | 0.5 |
| | | Vegetables | 0.3 |
| | | Meat | 0.03 |
| 17. | Heptachlor (combined residues of heptachlor and its epoxide to be determined and expressed as Heptachlor) | Foodgrains<br>Milled foodgrains<br>Milk and Milk Products | 0.01<br>0.002<br>0.15(on a Fat basis) |
| | | Vegetables | 0.05 |
| 18. | Hydrogen cyanide | Foodgrains | 37.5 |
| | | Milled foodgrains | 3.0 |
| 19. | Hydrogen Phosphide | Foodgrains | Nil |
| | | Milled foodgrains | Nil |
| 20. | Inorganic bromide (determined and expressed as total bromide from all sources) | Foodgrains | 25.0 |
| | | Milled Foodgrains | 25.0 |
| | | Fruits | 30.0 |
| | | Dried fruits | 30.0 |
| | | Spices | 400.00 |
| 21. | Hexachlorocycle hexane and its Isomers | | |
| | (a) Alfa ($\alpha$) Isomer: | Rice grain unpolished | 0.10 |
| | | Rice grain polished | 0.05 |
| | | Milk (whole) | 0.02 |
| | | Fruits and vegetable | 1.00 |
| | | Fish | 0.25 |
| | | Carbonated Water | 0.001 |
| | (b) Beta ($\beta$) Isomer : | Rice grain Unpolished | 0.10 |
| | | Rice grain polished | 0.05 |

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| (1) | (2) | (3) | (4) |
|---|---|---|---|
| | | Milk (whole) | 0.02 |
| | | Fruits and vegetable | 1.00 |
| | | Fish | 0.25 |
| | | Carbonated Water | 0.001 |
| | (c) Gamma (γ) Isomer (Known as Lindane) | Food grains except rice | 0.10 |
| | | Milled foodgrains | Nil |
| | | Rice grain Unpolished | 0.10 |
| | | Rice grain polished | 0.05 |
| | | Milk | 0.01 (onwhole basis) |
| | | Milk products | 0.20 |
| | | Milk products (having less than 2 per cent fat) | 0.20 (on whole basis) |
| | | Fruits and vegetable | 1.00 |
| | | Fish | 0.25 |
| | | Eggs | 0.10 (On shell free basis) |
| | | Meat and poultry | 2.00 (On Whole basis) |
| | | Carbonated Water | 0.001 |
| | (d) Delta (δ) Isomer : | Rice grain Unpolished | 0.10 |
| | | Rice grain Polished | 0.05 |
| | | Milk (whole) | 0.02 |
| | | Fruits & vegetables | 1.00 |
| | | Fish | 0.25 |
| | | Carbonated Water | 0.001 |
| 22. | Malathion (Malathion to be determined and expressed as combined residues of malathion and malaoxon) | Foodgrains<br>Milled foodgrains<br>Fruits | 4.0<br>1.0<br>4.0 |
| | | Vegetables | 3.0 |
| | | Dried fruits | 8.0 |
| | | Carbonated Water | 0.001 |
| 23. | Parathion (Combined residues of parathion and paraoxon to be determined and expressed as parathion) | Fruits and Vegetables | 0.5 |
| 24. | Parathion methyl (combined residues of parathion methyl and its oxygen analogue to be determined and expressed asparathion methyl) | Fruits<br>Vegetables | 0.2<br>1.0 |
| 25. | Phosphamidon residues (expressed as the sum of phosphamidon and its desethyl derivative) | Foodgrains<br>Milled foodgrains | 0.05<br>Nil |
| | | Fruits and Vegetables | 0.2 |

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| (1) | (2) | (3) | (4) |
|---|---|---|---|
| 26. | Pyrethrins (sum of pyrethrins I & II and other structurally related insecticide Ingredients of pyrethrum) | Foodgrains<br>Milled foodgrains<br>Fruits and Vegetables | Nil<br>Nil<br>1.0 |
| 27. | Chlorienvinphos | Foodgrains | 0.025 |
| | | Milled Foodgrains | 0.006 |
| | (Residues to be measured as alpha and beta | Milk and Milk Products | 0. 2 (fat basis) |
| | isomers ofChlorienvinphos | Meat and Poultry | 0.2 (carcass fat) |
| | | Vegetables | 0.05 |
| | | Groundnuts | 0.05 (shell free basis) |
| | | Cotton seed | 0.05 |
| 28. | Chlorobenzilate | Fruits | 1.0 |
| | | Dry Fruits, Almonds and Walnuts | 0.2 (shell free basis) |
| 29. | Chlorpyrifos | Foodgrains | 0.05 |
| | | Milled foodgrains | 0.01 |
| | | Fruits | 0.5 |
| | | Potatoes and Onions | 0.01 |
| | | Cauli Flower and Cabbage | 0.01 |
| | | Other vegetables | 0.2 |
| | | Meat and Poultry | 0.1 (carcass fat) |
| | | Milk and Milk Products | 0.01(fat basis) |
| | | Cotton seed | 0.05 |
| | | Cottonseed oil (crude) | 0.025 |
| | | Carbonated Water | 0.001 |
| 30 | 2,4D | Foodgrains | 0.01 |
| | | Milled foodgrains | 0.003 |
| | | Potatoes | 0.2 |
| | | *Milk and Milk Products | 0.05 |
| | | *Meat and Poultry | 0.05 |
| | | Eggs | 0.05 (shell free basis) |
| | | Fruits | 2.0 |
| 31 | Ethion (Residues to bedetermined as ethion andIts oxygen analogueand expressed as ethion) | Tea (dry manufactured)<br>Cucumber and Squash | 5.0<br>0.5 |
| | | Other Vegetables | 1.0 |
| | | Cotton seed | 0.5 |
| | | *Milk and Milk Products | 0.5 (fat basis) |
| | | *Meat and Poultry | 0.2 (carcass Fat basis) |

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| (1) | (2) | (3) | (4) |
|---|---|---|---|
| | | Eggs | 0.2 (shell free basis) |
| | | Food grains | 0.025 |
| | | Milled food grains | 0.006 |
| | | Peaches | 1.0 |
| | | Other fruits | 2.0 |
| | | Dry fruits | 0.1 (shell free basis) |
| 32. | Formothion (Determined as dinethoate and its oxygen Analogue and expressed as dimethoate except incase of citrus fruits where it is to be determined as formothion) | Citrus fruits<br>Other fruits<br>Vegetable<br>Peppers and Tomatoes | 0.2<br>1.0<br>2.0<br>1.0 |
| 33. | Monocrotophos | Food grains | 0.025 |
| | | Milled Food grains | 0.006 |
| | | Citrus fruits | 0.2 |
| | | Other fruits | 1.0 |
| | | Carrot, Turnip, Potatoes and Sugar beet | 0.05 |
| | | Onion and Peas | 0.1 |
| | | Other Vegetables | 0.2 |
| | | Cottonseed | 0.1 |
| | | Cottonseed oil (raw) | 0.05 |
| | | *Meat and Poultry | 0.02 |
| | | *Milk and Milk Products | 0.02 |
| | | Eggs | 0.02 (shell free basis) |
| | | Coffee (Raw beans) | 0.1 |
| | | Chillies | 0.2 |
| | | Cardamom | 0.5 |
| 34. | Paraquat Dichloride (Determined as Paraquat cations) | Food grains<br>Milled food grains | 0.1<br>0.025 |
| | | Potato | 0.2 |
| | | Other vegetables | 0.05 |
| | | Cotton seed | 0.2 |
| | | Cottonseed oil (edible refined) | 0.05 |
| | | *Milk (whole) | 0.01 |
| | | Fruits | 0.05 |
| 35. | Phosalone | Pears | 2.0 |
| | | Citrus fruits | 1.0 |
| | | Other fruits | 5.0 |
| | | Potatoes | 0.1 |

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| (1) | (2) | (3) | (4) |
|---|---|---|---|
| | | Other vegetables | 1.0 |
| | | Rapeseed/Mustard Oil (crude) | 0.05 |
| 36. | Trichlorfon | Foodgrains | 0.05 |
| | | Milled foodgrains | 0.0125 |
| | | Sugar beet | 0.05 |
| | | Fruits and Vegetables | 0.1 |
| | | Oil seeds | 0.1 |
| | | Edible Oil (refined) | 0.05 |
| | | *Meat and Poultry | 0.1 |
| | | *Milk (whole) | 0.05 |
| 37. | Thiometon | Food grains | 0.025 |
| | (Residues determined as | Milled food grains | 0.006 |
| | thiometon its sulfoxide | Fruits | 0.5 |
| | and sulphone expressed | Potato, Carrots and Sugar beets | 0.05 |
| | as thiometon) | Other vegetables | 0.5 |
| 38. | Acephate | Safflower seed | 2.0 |
| | | Cotton Seed | 2.0 |
| 39. | Methamido-phos | Safflower seed | 0.1 |
| | (A metabolite of Acephate) | Cotton seed | 0.1 |
| 40. | Aldicarb (sum of Aldicarb its sulphoxideand sulphone, expressedas Aldicarb) | Potato<br>Chewing Tobacco | 0.5<br>0.1 |
| 41. | Atrazine | Maize | Nil |
| | | Sugarcane | 0.25 |
| 42. | Carbendazim | Food grains | 0.50 |
| | | Milled food grains | 0.12 |
| | | Vegetables | 0.50 |
| | | Mango | 2.00 |
| | | Banana (whole) | 1.00 |
| | | Other fruits | 5.00 |
| | | Cotton seed | 0.10 |
| | | Groundnut | 0.10 |
| | | Sugar beet | 0.10 |
| | | Dry fruits | 0.10 |
| | | Eggs | 0.10 (shell free basis) |
| | | Meat & Poultry | 0.10 (Carcass fat basis) |
| | | Milk & Milk Products | 0.10 (fat basis) |
| 43. | Benomyl | Food grains | 0.50 |
| | | Milled food grains | 0.12 |

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| (1) | (2) | (3) | (4) |
|---|---|---|---|
| | | Vegetables | 0.50 |
| | | Mango | 2.00 |
| | | Banana (whole) | 1.00 |
| | | Other fruits | 5.00 |
| | | Cotton seed | 0.10 |
| | | Groundnut | 0.10 |
| | | Sugar beet | 0.10 |
| | | Dry fruits | 0.10 |
| | | Eggs | 0.10 (shell free basis) |
| | | Meat & Poultry | 0.10 (carcass fat basis) |
| | | Milk & Milk Products | 0.10 (fat basis) |
| 44. | Captan | Fruit & Vegetables | 15.00 |
| 45. | Carbofuran (sum of | Food grains | 0.10 |
| | carbofuran and | Milled food grains | 0.03 |
| | 3-hydroxy carbofuran | Fruit & Vegetables | 0.10 |
| | expressed as carbofuran) | Oil seeds | 0.10 |
| | | Sugarcane | 0.10 |
| | | Meat & Poultry | 0.10 (carcass fat basis) |
| | | Milk & Milk Products | 0.05 (fat basis) |
| 46. | Copper Oxychloride | Fruit | 20.00 |
| | (determined as copper) | Potato | 1.00 |
| | | Other vegetables | 20.00 |
| 47. | Cypermethrin (sum of isomers) (fat soluble residue) | Wheat grains | 0.05 |
| | | Milled wheat grains | 0.01 |
| | | Brinjal | 0.20 |
| | | Cabbage | 2.00 |
| | | Bhindi | 0.20 |
| | | Oil seeds except groundnut | 0.20 |
| | | Meat and Poultry | 0.20 (carcass fat basis |
| | | Milk and Milk Products | 0.01 (fat basis) |
| 48. | Decamethrin / Deltamethrin | Cotton Seed | 0.10 |
| | | Food grains | 0.50 |
| | | Milled Foodgrains | 0.20 |
| | | Rice | 0.05 |
| 49. | Edifenphos | Rice | 0.02 |
| | | Rice bran | 1.00 |

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| (1) | (2) | (3) | (4) |
|---|---|---|---|
| | | Eggs | 0.01(shell free basis) |
| | | Meat and poultry | 0.02 (carcass fat basis) |
| | | Milk and Milk products | 0.01( fat basis) |
| 50. | Fenthion (sum of fenthion, its oxygen analogue and their sulphoxides and sulphones expressed as fenthion) | Food grains<br>Milled food grains<br>Onion | 0.10<br>0.03<br>0.10 |
| | | Potatoes | 0.05 |
| | | Beans | 0.10 |
| | | Peas | 0.50 |
| | | Tomatoes | 0.50 |
| | | Other vegetables | 1.00 |
| | | Musk melon | 2.00 |
| | | Meat and Poultry | 2.00 (carcasss fat basis) |
| | | Milk and Milk products | 0.05 (fat basis) |
| 51. | Fenvalerate (fat soluble residue) | Cauliflower | 2.00 |
| | | Brinjal | 2.00 |
| | | Okra | 2.00 |
| | | Cotton Seed | 0.20 |
| | | Cotton seed oil | 0.10 |
| | | Meat and Poultry | 1.00 (carcass fat basis) |
| | | Milk and Milk Product | 0.01 (fat basis) |
| 52. | Dithiocarbamates (the residue tolerance limit are determined and expressed as mg/CS2/kg and refer separately to the residues arising from any or each group of dithiocarbamates | Food Grains<br>Milled food grains<br>Potatoes | 0.20<br>0.05<br>0.10 |
| | (a) Dimethyl dithiocarbamates residue resulting from the use of ferbam or ziram, and | Tomatoes | 3.00 |
| | (b) Ethylene bis- dithiocarbamates resulting from the use of mancozeb, maneb or zineb (including zineb derived from nabam plus zinc sulphate) | Cherries<br>Other fruits | 1.00<br>3.00 |
| | (c) Mancozeb | Chillies | 1.0 |
| 53. | Phenthoate | Foodgrains | 0.05 |
| | | Milled foodgrains | 0.01 |
| | | Oilseeds | 0.03 |
| | | Edible oils | 0.01 |
| | | Eggs | 0.05 (shell free basis) |
| | | Meat & Poultry | 0.05 (carcass fat basis) |

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| (1) | (2) | (3) | (4) |
|---|---|---|---|
| | | Milk & Milk products | 0.01 (fat basis) |
| 54. | Phorate (sum ofPhorate, its oxygenanalogue and theirsulphoxides and sulphones,expressed as phorate) | Foodgrains | 0.05 |
| | | Milled foodgrains | 0.01 |
| | | Tomatoes | 0.10 |
| | | Other vegetables | 0.05 |
| | | Fruits | 0.05 |
| | | Oil seeds | 0.05 |
| | | Edible oils | 0.03 |
| | | Sugarcane | 0.05 |
| | | Eggs | 0.05 (shell free basis) |
| | | Meat & Poultry | 0.05 (carcass fat basis) |
| | | Milk & Milk Products | 0.05 (fat basis) |
| 55. | Simazine | Maize | Nil |
| | | Sugarcane | 0.25 |
| 56. | Pirimiphos-methyl | Rice | 0.50 |
| | | Food grains except Rice | 5.00 |
| | | Milled food grains except rice | 1.00 |
| | | Eggs | 0.05 (shell free basis) |
| | | Meat & Poultry | 0.05 (carcass fat basis) |
| | | Milk & Milk Products | 0.05 (fat basis) |
| 57. | Alachlor | Cotton Seed | 0.05 |
| | | Groundnut | 0.05 |
| | | Maize | 0.10 |
| | | Soyabeans | 0.10 |
| 58. | Alfa Nephthyl AceticAcid (A.N.A.) | Pine-Apple | 0.50 |
| 59. | Bitertanol | Wheat | 0.05 |
| | | Groundnut | 0.10 |
| 60. | Captafol | Tomato | 5.00 |
| 61. | Cartaphydrochloride | Rice | 0.50 |
| 62. | Chlormequatchloride | Grape | 1.00 |
| | | Cotton Seed | 1.00 |
| 63. | Chlorothalonil | Groundnut | 0.10 |
| | | Potato | 0.10 |
| 64. | Diflubenzuron | Cotton Seed | 0.20 |
| 65. | Dodine | Apple | 5.00 |
| 66. | Diuron | Cotton Seed | 1.00 |
| | | Banana | 0.10 |

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| (1) | (2) | (3) | (4) |
|---|---|---|---|
| | | Maize | 0.50 |
| | | Citrus (Sweet Orange) | 1.00 |
| | | Grapes | 1.00 |
| 67. | Ethephon | Pine Apple | 2.00 |
| | | Coffee | 0.10 |
| | | Tomato | 2.00 |
| | | Mango | 2.00 |
| 68. | Fluchloralin | Cotton Seed | 0.05 |
| | | Soya Beans | 0.05 |
| 69. | Malic Hydrazide | Onion | 15.00 |
| | | Potato | 50.00 |
| 70. | Metalyxyl | Bajra | 0.05 |
| | | Maize | 0.05 |
| | | Sorghum | 0.05 |
| 71. | Methomyl | Cotton Seed | 0.10 |
| 72. | Methyl Chloro-phenoxy-acetic Acid(M.C.P.A.) | Rice | 0.05 |
| | | Wheat | 0.05 |
| 73. | Oxadiazon | Rice | 0.03 |
| 74. | Oxydemeton methyl | Food-grains | 0.02 |
| 75. | Permethrin | Cucumber | 0.50 |
| | | Cotton Seed | 0.50 |
| | | Soya Beans | 0.05 |
| | | Sunflower Seed | 1.00 |
| 76. | Quinolphos | Rice | 0.01 |
| | | Pigeon pea | 0.01 |
| | | Cardamom | 0.01 |
| | | Tea | 0.01 |
| | | Fish | 0.01 |
| | | Chillies | 0.2 |
| 77. | Thiophenatemethyl | Apple | 5.00 |
| | | Papaya | 7.00 |
| 78 | Triazophos | Chillies | 0.2 |
| | | Rice | 0.05 |
| | | Cotton seed oil | 0.1 |
| | | Soyabean oil | 0.05 |
| 79 | Profenofos | Cotton seed oil | 0.05 |
| 80 | Fenpropathrin | Cotton seed oil | 0.05 |
| 81 | Fenarimol | Apple | 5.0 |
| 82 | Hexaconazole | Apple | 0.1 |

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| (1) | (2) | (3) | (4) |
|---|---|---|---|
| 83 | Iprodione | Rape seed | 0.5 |
| | | Mustard seed | 0.5 |
| | | Rice | 10.0 |
| | | Tomato | 5.0 |
| | | Grapes | 10.0 |
| 84. | Tridemorph | Wheat | 0.1 |
| | | Grapes | 0.5 |
| | | Mango | 0.05 |
| 85. | Penconazole | Grapes | 0.2 |
| 86 | Propiconazole | Wheat | 0.05 |
| 87 | Myclobutanil | Groundnut seed | 0.1 |
| | | Grapes | 1.0 |
| 88 | Sulfosulfuron | Wheat | 0.02 |
| 89 | Trifluralin | Wheat | 0.05 |
| 90 | Ethoxysulfuron | Rice | 0.01 |
| 91 | Metolachlor | Soyabean Oil | 0.05 |
| 92 | Glyphosphate | Tea | 1.0 |
| 93 | Linuron | Pea | 0.05 |
| 94 | Oxyfluorfen | Rice | 0.05 |
| | | Groundnut Oil | 0.05 |
| 95 | Carbosulfan | Rice | 0.2 |
| 96 | Tricyclazole | Rice | 0.02 |
| 97 | Imidacloprid | Cotton seed Oil | 0.05 |
| | | Rice | 0.05 |
| 98 | Butachlor | Rice | 0.05 |
| 99 | Chlorimuron-ethyl | Wheat | 0.05 |
| 100 | Diclofop-methyl | Wheat | 0.1 |
| 101 | Metribuzin | Soyabean Oil | 0.1 |
| 102 | Lambdacyhalothrin | Cotton seed Oil | 0.05 |
| 103 | Fenazaquin | Tea | 3.0 |
| 104 | Pendimethalin | Wheat | 0.05 |
| | | Rice | 0.05 |
| | | Soyabean Oil | 0.05 |
| | | Cotton seed Oil | 0.05 |
| 105 | Pretilachlor | Rice | 0.05 |
| 106 | Fluvalinate | Cotton seed Oil | 0.05 |
| 107 | Metasulfuron-methyl | Wheat | 0.1 |
| 108 | Methabenzthiazuron | Wheat | 0.5 |
| 109 | Imazethapyr | Soyabean oil | 0.1 |
| | | Groundnut oil | 0.1 |

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| (1) | (2) | (3) | (4) |
|---|---|---|---|
| 110 | Cyhalofop-butyl | Rice | 0.5 |
| 111 | Triallate | Wheat | 0.05 |
| 112 | Spinosad | Cotton seed oil | 0.02 |
| | | Cabbage | 0.02 |
| | | Cauliflower | 0.02 |
| 113 | Thiamethoxam | Rice | 0.02 |
| 114 | Fenobucarb | Rice | 0.01 |
| 115 | Thiodicarb | Cotton seed oil | 0.02 |
| 116 | Anilophos | Rice | 0.1 |
| 117 | Fenoxy-prop-p-ethyl | Wheat | 0.02 |
| | | Soyabean seed | 0.02 |
| 118 | Glufosinate-ammonium | Tea | 0.01 |
| 119 | Clodinafop-propanyl | Wheat | 0.1 |
| 120 | Dithianon | Apple | 0.1 |
| 121 | Kitazin | Rice | 0.2 |
| 122 | Isoprothiolane | Rice | 0.1 |
| 123 | Acetamiprid | Cotton seed oil | 0.1 |
| 124 | Cymoxanil | Grapes | 0.1 |
| 125 | Triadimefon | Wheat | 0.5 |
| | | Pea | 0.1 |
| | | Grapes | 2.0 |
| 126 | Fosetyl-A1 | Grapes | 10 |
| | | Cardamom | 0.2 |
| 127 | Isoproturon | Wheat | 0.1 |
| 128 | Propargite | Tea | 10.0 |
| 129 | Difenoconazole | Apple | 0.01 |
| 130 | b-Cyfluthrin | Cotton seed | 0.02 |
| 131 | Ethofenprox | Rice | 0.01 |
| 132 | Bifenthrin | Cotton seed | 0.05 |
| 133 | Benfuracarb | Red Gram | 0.05 |
| | | Rice | 0.05 |
| 134 | Quizalofop-ethyl | Soyabean seed | 0.05 |
| 135 | Flufenacet | Rice | 0.05 |
| 136 | Buprofezin | Rice | 0.05 |
| 137 | Dimethomorph | Grapes | 0.05 |
| | | Potatoes | 0.05 |
| 138 | Chlorfenopyr | Cabbage | 0.05 |
| 139 | Indoxacarb | Cotton seed | 0.1 |
| | | Cottonseed oil | 0.1 |
| | | Cabbage | 0.1 |

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| (1) | (2) | (3) | (4) |
|---|---|---|---|
| 140 | Metiram | Tomato | 5.0 |
| | | Ground nut seed | 0.1 |
| | | Ground nut seed oil | 0.1 |
| 141 | Lufenuron | Cabbage | 0.3 |
| 142 | Carpropamid | Rice | 1.0 |
| 143 | Novaluron | Cottonseed | 0.01 |
| | | Cottonseed oil | 0.01 |
| | | Tomato | 0.01 |
| | | Cabbage | 0.01 |
| 144 | Oxadiargyl | Rice | 0.1 |
| 145 | Pyrazosulfuron ethyl | Rice | 0.01 |
| 146 | Clomazone | Rice | 0.01 |
| | | Soyabean seed | 0.01 |
| | | Soyabean seed oil | 0.01 |
| 147 | Tebuconazole | Wheat | 0.05 |
| 148 | Propineb | Apple | 1.0 |
| | | Pomegranate | 0.5 |
| | | Potato | 0.5 |
| | | Green Chillies | 2.0 |
| | | Grapes | 0.5 |
| 149 | Thiochlorprid | Cotton seed | 0.05 |
| | | Cotton seed oil | 0.05 |
| | | Rice | 0.01 |

*: Soluble in water, hence not necessary to mention on fat basis

*Explanation* :— For the purpose of this regulation :

(a) the expression "insecticide" shall have the meaning assigned to it in the Insecticide Act, 1968 (46 of 1968);

(b) unless otherwise stated :

(i) maximum levels are expressed in mg./kg. on a whole product basis.

(ii) all foods refer to raw agricultural products moving in commerce.

2.3.2: ANTIBIOTIC AND OTHER PHARMA-COLOGICALLY ACTIVE SUBSTANCES

1) The amount of antibiotic mentioned in column (2), on the sea foods including shrimps, prawns or any other variety of fish and fishery products, shall not exceed the tolerance limit prescribed in column (3) of the table given below:—

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TABLE

| S.No. | Name of Antibiotics | Tolerance limit mg/kg (ppm) |
|---|---|---|
| 1. | Tetracycline | 0.1 |
| 2. | Oxytetracycline | 0.1 |
| 3. | Trimethoprim | 0.05 |
| 4. | Oxolinic acid | 0.3 |

2) The use of any of the following antibiotics and other Pharmacologically Active Substances shall be prohibited in any unit processing sea foods including shrimps, prawns or any other variety of fish and fishery products —

(i) All Nitrofurans including

(ii) Furaltadone

(iii) Furazolidone

(iv) Furylfuramide

(v) Nifuratel

(vi) Nifuroxime

(vii) Nifurprazine

(viii) Nitrofurnatoin

(ix) Nitrofurazone

(x) Chloramphenicol

(xi) Neomycin

(xii) Nalidixic acid

(xiii) Sulphamethoxazole

(xiv) Aristolochia spp and preparations thereof

(xv) Chloroform

(xvi) Chloropromazine

(xvii) Cholchicine

(xviii) Dapsone

(xix) Dimetridazole

(xx) Metronidazole

(xxi) Ronidazole

(xxii) Ipronidazole

(xxiii) Other nitromidazoles

(xxiv) Clenbuterol

(xxv) Diethylstibestrol (DES)

(xxvi) Sulfanoamide drugs (except approved Sulfadimethoxine, Sulfabromomethazine and Sulfaethoxypyridazine)

(xxvii) Fluoroquinolones

(xxviii) Glycopeptides.

[F.No. 2-15015/30/2010]

V.N. GAUR,

Chief Executive Officer

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FOOD SAFETY AND STANDARDS (CONTAMINANTS, TOXINS AND RESIDUES) REGULATIONS, 2011

## CHAPTER 1
## GENERAL

1.1: Short title and commencement-

1.1.1: These regulations may be called the Food Safety and Standards (Contaminants, toxins and Residues) Regulations, 2011.

1.1.2: These regulations shall come into force on or after 5th August, 2011.

1.2: Definitions-

1.2.1: In these regulations unless the context otherwise requires:

1. "Crop contaminant" means any substance not intentionally added to food, but which gets added to articles of food in the process of their production (including operations carried out in crop husbandry, animal husbandry and veterinary medicine), manufacture, processing, preparation, treatment, packing, packaging transport or holding of articles of such food as a result of environmental contamination

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## CHAPTER 2
## CONTAMINANTS, TOXINS AND RESIDUES

2.1 : METAL CONTAMINANTS

2.1.1

1. Chemicals described in monographs of the Indian Pharmacopoeia when used in foods, shall not contain metal contaminants beyond the limits specified in the appropriate monographs of the Indian Pharmacopoeia for the time being in force.

2. Notwithstanding the provisions of regulation 2.1.1 (1), no article of food specified in Column 2 of the table below shall contain any metal specified in excess of the quantity specified in Column 3 of the said table:

**Table**

| **Name of the metal contaminants** | **Article of food** | **Parts per Million by weight** |
|---|---|---|
| **(1)** | **(2)** | **(3)** |
| 1. Lead | (i) Beverages; | |
| | Concentrated soft drinks (but not including concentrates used in the manufacture of soft drinks) | 0.5 |
| | Fruit and vegetable juice (including tomato juice, but not including lime juice and lemon juice) | 1.0 |
| | Concentrates used in the manufacture of soft drinks, lime juice and lemon juice | 2.0 |
| | (ia) Baking powder | 10 |
| | (ib) Edible oils and fats | 0.5 |
| | (ic) Infant Milk substitute and Infant foods | 0.2 |

| (1) | (2) | (3) |
|---|---|---|
| | (id) Turmeric whole and powder | 10.0 |
| | (ii) Other foods | |
| | Anhydrous dextrose and dextrose monohydrate, refined white sugar (sulphated ash content not exceeding 0.03 per cent) | 0.5 |
| | Ice-cream, iced lollies and similar frozen confections | 1.0 |
| | Canned fish, canned meats, edible gelatin, meat extracts and hydrolysed protein, dried or dehydrated vegetables (other than onions) | 5.0 |
| | All types of sugar, sugar syrup, invert sugar and direct consumption coloured sugars with sulphated ash content exceeding 1.0 per cent | 5.0 |
| | Raw sugars except those sold for direct consumption or used for manufacturing purpose other than the manufacture of refined sugar. | 5.0 |
| | Edible molasses, caramel liquid and solid glucose and starch conversion products with a sulphated ash content exceeding 1.0 per cent | 5.0 |
| | Cocoa powder | 5.0 on the dry fat free substance |
| | Yeast and yeast products | 5.0 on the dry Matter |
| | Tea, dehydrated onions, dried herbs and spices flavourings, alginic acid, alignates, agar, carrageen and similar products derived from seaweed | 10.0 on the dry matter |
| | Liquid pectin, chemicals not otherwise specified, used as ingredients or in the preparation or processing of food | 10.0 |
| | Food colouring other than caramel | 10.0 on the dry colouring matter |
| | Solid pectin | 50.0 |
| | Hard boiled sugar confectionery | 2.0 |
| | Iron fortified common salt | 2.0 |
| | Corned beef, luncheon meat, Cooked Ham, Chopped meat, Canned chicken, Canned mutton and Goat meat and other related meat products | 2.5 |
| | Brewed vinegar and Synthetic vinegar | Nil |
| | (iii) Foods not specified | 2.5 |
| | [7] [Assorted subtropical fruits, edible peel | 0.1 |
| | Assorted subtropical fruits, inedible peel | 0.1 |
| | Berries and other small fruits | 0.2 |
| | Citrus fruits | 0.1 |
| | Pome fruits | 0.1 |
| | Stone fruits | 0.1 |
| | Brassica vegetables excluding Kale | 0.3 |
| | Bulb vegetables | 0.1 |
| | Fruiting vegetables, cucurbits | 0.1 |
| | Fruiting vegetables other than cucurbits (excluding mushrooms) | 0.1 |
| | Leafy vegetables (including brassica leafy vegetables but excluding spinach) | 0.3 |
| | Legume vegetables | 0.2 |
| | Pulses | 0.2 |
| | Root and tuber vegetables | 0.1 |
| | Canned fruit cocktail | 1 |
| | Canned grapefruit | 1 |

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| (1) | (2) | (3) |
|---|---|---|
| | Canned mandarin oranges | 1 |
| | Canned mangoes | 1 |
| | Canned pineapple | 1 |
| | Canned raspberries | 1 |
| | Canned strawberries | 1 |
| | Canned tropical fruit salad | 1 |
| | Jams (fruit preserves) and jellies | 1 |
| | Mango chutney | 1 |
| | Table olives | 1 |
| | Canned asparagus | 1 |
| | Canned carrots | 1 |
| | Canned green beans and Canned wax beans | 1 |
| | Canned green peas | 1 |
| | Canned mature processed peas | 1 |
| | Canned mushrooms | 1 |
| | Canned palmito | 1 |
| | Canned sweetcorn | 1 |
| | Canned tomatoes | 1 |
| | Pickled cucumbers (cucumber pickles) | 1 |
| | Processed tomato concentrates | 1.5 |
| | Fruit Juices (including nectars; ready to drink) | 0.05 |
| | Cereal grains, except buckwheat, canihua and quinoa | 0.2 |
| | Canned chestnuts and canned chestnut puree | 1 |
| | Meat of cattle, sheep and pig (also applies to fat from meat) | 0.1 |
| | Poultry meat | 0.1 |
| | Cattle, edible offal of | 0.5 |
| | Pig, edible offal of | 0.5 |
| | Poultry, edible offal of | 0.5 |
| | Edible fats and oils (edible fats and oils not covered by individual standards) | 0.1 |
| | Fish | 0.3 |
| | Margarine | 0.1 |
| | Minarine | 0.1 |
| | Named animal fats (lard, rendered pork fat, premier jus and edible tallow) | 0.1 |
| | Olive oil, refined | 0.1 |
| | Olive oil, virgin | 0.1 |
| | Olive, residue oil (olive pomace oil) | 0.1 |

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| (1) | (2) | (3) |
|---|---|---|
| | Poultry fats | 0.1 |
| | Vegetable oils, crude (oils of arachis, babasu, coconut, cotton seed, grape seed, maize, mustard seed, palm kernel, palm, rape seed, safflower seed, sesame seed, soya bean, and sunflower seed, and palm olein, stearin and superolein and other oils but excluding cocoa butter) | 0.1 |
| | Vegetable oils, edible (oils of arachis, babasu, coconut, cotton seed, grape seed, maize, mustard seed, palm kernel, palm, rape seed, safflower seed, sesame seed, soya bean, and sunflower seed, and palm olein, stearin and superolein and other oils but excluding cocoa butter) | 0.1 |
| | Milks (A concentration factor applies to partially or wholly dehydrated milks.) | 0.02 |
| | Secondary milk products (as consumed) | 0.02 |
| | Natural mineral water, expressed in mg/L | 0.01 |
| | Infant formula (ready to use) | 0.02 |
| | Salt, food grade | 2.0 |
| | Wine | 0.2 |
| | Crustaceans | 0.5 |
| | Cephalopods | 1.0 |
| | Bivalve Molluscs | 1.5] |
| 2. Copper | (i) Beverages: | |
| | Soft drinks excluding concentrates and Carbonated water | 7.0 |
| | Carbonated water | 1.5 |
| | Toddy | 5.0 |
| | Concentrates for soft drinks | 20.0 |
| | (ii) Other Foods | |
| | Chicory-dried or roasted, coffee beans, flavourings/pectin liquid | 30.0 |
| | Colouring matter | 30.0 on dry colouring matter |
| | Edible gelatin | 30.0 |
| | Tomato ketchup | 50.0 on the dried total solids |
| | Yeast and yeast products | 60.0 on the dry matter |
| | Cocoa powder | 70.0 on the fat free substance |
| | Tomato puree, paste, powder, juice and cocktails | 100.0 on the dried tomato solid |
| | Tea | 150.0 |
| | Pectin-solid | 300.0 |
| | Hard boiled sugar confectionery | 5.0 |
| | Iron Fortified Common Salt | 2.0 |
| | Turmeric whole and powder | 5.0 |
| | Juice of orange, grape, apple, tomato, pineapple and lemon | 5.0 |
| | Pulp and pulp products of any fruit | 5.0 |
| | Infant milk substitute and Infant foods | 15.0 (But not less |

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| | | |
|---|---|---|
| | | than 2.8) |
| | Brewed Vinegar and Synthetic vinegar | Nil |
| | Caramel | 20 |
| | (iii) Foods not specified | 30.0 |
| 3. Arsenic | (i) Milk | 0.1 |
| | (ii) Beverages : | |
| | Soft drink intended for consumption after dilution except carbonated water | 0.5 |
| | Carbonated water | 0.25 |
| | Infant Milk substitute and Infant foods | 0.05 |
| | Turmeric whole and powder | 0.1 |
| | Juice of orange, grape, apple, tomato, pineapple and lemon | 0.2 |
| | Pulp and pulp products of any fruit | 0.2 |
| | Preservatives, anti-oxidants, emulsifying and stabilising agents and synthetic food colours | 3.0 on dry matter |
| | Ice-cream, iced lollies and similar frozen confections | 0.5 |
| | Dehydrated onions, edible gelatin, liquid pectin | 2.0 |
| | Chicory-dried or roasted | 4.0 |
| | Dried herbs, finings and clearing agents, solid pectin all grades, spices | 5.0 |
| | Food colouring other than synthetic colouring. | 5.0 on dry colouring matter |
| | Hard boiled sugar confectionery | 1.0 |
| | Iron Fortified Common Salt | 1.0 |
| | Brewed Vinegar and Synthetic Vinegar | 0.1 |
| | (iii) Foods not specified | 1.1 |
| | [7] [Edible fats and oils (edible fats and oils not covered by individual standards) | 0.1 |
| | Margarine | 0.1 |
| | Minarine | 0.1 |
| | Named animal fats (lard, rendered pork fat, premier jus and edible tallow) | 0.1 |
| | Olive oil, refined | 0.1 |
| | Olive oil, virgin | 0.1 |
| | Olive, residue oil (olive pomace oil) | 0.1 |
| | Vegetable oils, crude (oils of arachis, babasu, coconut, cottonseed, grapeseed, maize, mustardseed, palm kernel, palm, rapeseed, safflower seed, sesameseed, soya bean, and sunflowerseed, and palm olein, stearin and superolein). | 0.1 |
| | Vegetable oils, edible (oils of arachis, babasu, coconut, cottonseed, grapeseed, maize, mustardseed, palm kernel, palm, rapeseed, safflower seed, sesameseed, soya bean, and sunflowerseed, and palm olein, stearin and superolein). | 0.1 |
| | Natural mineral water, expressed in mg/L | 0.01 |
| | Salt, food grade | 0.5 |
| | Fish and Crustaceans | 76 |
| | Molluscs | 86] |
| 4. Tin | (i) Processed and canned products | 250 |
| | (i-a) Hard boiled sugar confectionery | 5.0 |

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| (1) | (2) | (3) |
|---|---|---|
| | (i-aa) Jam, Jellies and Marmalade | 250 |
| | Juice of orange, apple, tomato, pineapple and lemon | 250 |
| | Pulp and pulp products of any fruit | 250 |
| | (i-b) Infant Milk substitute and Infant foods | 5.0 |
| | (i-c) Turmeric whole and powder | Nil |
| | (i-d) Corned beef, Luncheon meat, Cooked Ham, Chopped meat, Canned chicken, Canned mutton and Goat meat | 250 |
| | (ii) Foods not specified | 250 |
| | [7] [Canned foods other than beverages | 250 |
| | Canned beverages | 150 |
| | Canned citrus fruits | 250 |
| | Canned stone fruits | 250 |
| | Canned vegetables | 250 |
| | Canned fruit cocktail | 250 |
| | Canned mangoes | 250 |
| | Canned pineapple | 250 |
| | Canned raspberries | 250 |
| | Canned strawberries | 250 |
| | Canned tropical fruit salad | 250 |
| | Mango Chutney | 250 |
| | Table olives | 250 |
| | Canned mushrooms | 250 |
| | Canned tomatoes | 250 |
| | Pickled cucumber | 250 |
| | Processed tomato concentrates | 250 |
| | Canned chestnuts and chestnut puree | 250 |
| | Cooked cured chopped meat (for products in tinplate containers) | 250 |
| | Cooked cured chopped meat (for products in other containers) | 50 |
| **(1)** | **(2)** | **(3)** |
| | Cooked cured ham (for products in tinplate containers) | 200 |
| | Cooked cured ham (for products in other containers) | 50 |
| | Cooked cured pork shoulder (for products in tinplate containers) | 200 |
| | Cooked cured pork shoulder (for products in other containers) | 50 |
| | Corned beef (for products in tinplate containers) | 200 |
| | Corned beef (for products in other containers) | 50 |
| | Luncheon meat (for products in tinplate containers) | 200 |
| | Luncheon meat (for products in other containers) | 50 |
| | Canned fish products | 200] |
| [8] [***] | | |

IndiaCode

| (1) | (2) | (3) |
|---|---|---|
| 6. Cadmium | (i) Infant Milk substitute and Infant foods | 0.1 |
| | (ii) Turmeric whole and powder | 0.1 |
| | (iii) Other foods | 1.5 |
| | [7][Brassica vegetables | 0.05 |
| | Bulb vegetables | 0.05 |
| | Fruiting vegetables, cucurbits | 0.05 |
| | Fruiting vegetables other than cucurbits (excluding tomatoes and edible fungi) | 0.05 |
| | Leafy vegetables | 0.2 |
| | Legume vegetables | 0.1 |
| | Potato, peeled | 0.1 |
| | Pulses, excluding soybean dry | 0.1 |
| | Root and tuber vegetables, excluding potato and celeriac | 0.1 |
| | Stalk and stem vegetables | 0.1 |
| | Cereal grains, except buckwheat, canihua and quinoa (excluding wheat and rice; and bran and germ | 0.1 |
| | Rice, polished | 0.4 |
| | Wheat | 0.2 |
| | Natural mineral water, expressed in mg/L | 0.003 |
| | Salt, food grade | 0.5 |
| | Fish | 0.3 |
| | Crustaceans | 0.5 |
| | Cephalopods | 2.0 |
| | Bivalve Molluscs | 2.0] |
| 7. Mercury | Fish | 0.5 |
| | Other foods | 1.0 |
| | [7][Natural mineral water, expressed in mg/L | 0.001 |
| | Salt, food grade | 0.1 |
| | Non-predatory fish, crustaceans, cephalopods, molluscs | 0.5 |
| | Predatory Fish (Tuna, Marlin, Sword Fish, Elasmobranch) | 1.0] |
| 8. Methyl Mercury (Calculated as the element) | All foods | 0.25 |
| **(1)** | **(2)** | **(3)** |
| 9. Chromium | Refined Sugar | 20 ppb |
| | [3][Gelatin | 10] |
| | [7][All fishery products | 12] |
| 10. Nickel | All hydrogenated, patially hydrogenated, interesterified vegetable oils and fats such as vanaspati, table margarine, bakery and industrial margarine, bakery shortening, fat spread and partially hydrogenated margarine, bakery shortening, fat spread and partially hydrogenated soyabean oil | 1.5 |

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2.2 Crop contaminants and naturally occurring toxic substances

2.2.1

[4] [1. No article of food specified in column (3) of the Table below shall contain any crop contaminant specified in the corresponding entry in column (2) thereof in excess of quantities specified in the corresponding entry in column (4) of the said Table:

**Table**

| S.No. | Name of the Contaminants | Article of the food | Limit µg/kg |
|---|---|---|---|
| **(1)** | **(2)** | **(3)** | **(4)** |
| 1. | Aflatoxin | Cereal and Cereal Products | 15 |
| | | Pulses | 15 |
| | | Nuts<br>Nuts for further processing<br>Ready to eat | <br>15<br>10 |
| | | Dried figs | 10 |
| | | Oilseeds or oil<br>Oilseeds for further processing<br>Ready to eat | <br>15<br>10 |
| | | Spices | 30 |
| 2. | Aflatoxin $M_1$ | Milk | 0.5 |
| 3. | Ochratoxin A | Wheat, barley and rye | 20 |
| 4. | Patulin | Apple juice and Apple juice ingredients in other beverages | 50 |
| 5. | Deoxynivalenol | wheat | 1000] |

[2] [2. Naturally occurring Toxic Substances:

**Table**

| Sl.No | Name of naturally occuring toxic substances (NOTS) | Article of food | Maximum limits (ppm) |
|---|---|---|---|
| **(1)** | **(2)** | **(3)** | **(4)** |
| 1 | Agaric acid | Food containing mushrooms | 100 |
| | | Alcoholic beverages | 100 |
| **(1)** | **(2)** | **(3)** | **(4)** |
| 2 | Hydrocyanic acid | Nougat, marzipan or its substitutes or similar products | 5 |
| | | Canned stone fruits | 5 |

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|---|---|---|---|
| | | Alcoholic beverages | 5 |
| | | Confectionery | 5 |
| | | Stone fruit juices | 5 |
| | | [10][Sago, Cassava flour, Tapioca flour, Manihot flour and their products | 10] |
| 3 | Hypericine | Alcoholic beverages | 1 |
| 4 | Saffrole | Meat preparations and meat products, including poultry and game | 10 |
| | | Fish preparations and fish products | 10 |
| | | Soups and sauces | 10 |
| | | Non-alcoholic beverages | 10 |
| | | Food containing mace and nutmeg | 10 |
| | | Alcoholic beverages | 10**]** |

**5 [**3. Polychlorinated biphenyls (PCBs) and Polycyclic Aromatic Hydrocarbon (PAH) compounds in Fish and Fishery Products:

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| Sl.No. | Name of the contaminants | Article of food | Limit |
|---|---|---|---|
| **(1)** | **(2)** | **(3)** | **(4)** |
| 1. | Polychlorinated biphenyls (Sum of PCB28, PCB52, PCB101, PCB138, PCB153 and PCB180) | Inland and Migratory Fish | 2.0 ppm |
| 2. | Polychlorinated biphenyls (Sum of PCB28, PCB52, PCB101, PCB138, PCB153 and PCB180) | Marine Fish, Crustaceans and molluscs | 0.5 ppm |
| 3. | Benzo(a)pyrene | Smoked Fishery Products | 5.0 ppb**]** |

2.3: Residues

2.3.1: Restriction on the use of insecticides.

1) Subject to the Provisions of regulation 2.3.1 (2), no insecticides shall be used directly on articles of food

Provided that nothing in this regulation shall apply to the fumigants which are registered and recommended for use as such on articles of food by the Registration Committee, constituted under section 5 of the Insecticides Act, 1968 (46 of 1968).

2) The amount of insecticide mentioned in Column 2 on the foods mentioned in column 3, shall not exceed the tolerance limit prescribed in column 4 of the Table given below :

**Table**

| Sl.No. | Name of Insecticides | Food | Tolerance limit mg/kg.(ppm) |
|---|---|---|---|
| **(1)** | **(2)** | **(3)** | **(4)** |
| 1. | Aldrin, dieldrin (the limits apply to aldrin and dieldrin singly or in any combination and are expressed as dieldrin) | Foodgrains | 0.01 |
| | | Milled Foodgrains | Nil |
| | | Milk and Milk products | 0.15 (on a fat basis) |
| | | Fruits and Vegetables | 0.1 |

| | | | |
|---|---|---|---|
| | | Meat | 0.2 |
| | | Eggs | 0.1 (on a shell free basis) |
| **(1)** | **(2)** | **(3)** | **(4)** |
| 2. | Carbaryl | Fish | 0.2 |
| | | Food grains | 1.5 |
| | | Milled food grains | Nil |
| | | Okra and leafy vegetables | 10.0 |
| | | Potatoes | 0.2 |
| | | Other vegetables | 5.0 |
| | | Cottonseed (whole) | 1.0 |
| | | Maize cob (kernels) | 1.0 |
| | | Rice | 2.50 |
| | | Maize | 0.50 |
| | | Chillies | 5.00 |
| 3. | Chlordane (residue to be measured as cis plus trans chlordane) | Food grains | 0.02 |
| | | Milled food grains | Nil |
| | | Milk and milk products | 0.05 (on a fat basis) |
| | | Vegetables | 0.2 |
| | | Fruits | 0.1 |
| | | Sugar beet | 0.3 |
| 4. | D.D.T. (The limits apply to D.D.T., D.D.D. and D.D.E. singly or in any combination) | Milk and milk products | 1.25 (on a fat basis) |
| | | Fruits and vegetables including potato | 3.5 |
| | | Meat, poultry and fish | 7.0 (on a whole product basis) |
| | | Eggs | 0.5 (on a shell free basis) |
| 5. | D.D.T. (singly) | Carbonated Water | 0.001 |
| 6. | D.D.D. (singly) | Carbonated Water | 0.001 |
| 7. | D.D.E. (singly) | Carbonated Water | 0.001 |
| 8 | Diazinon | Food grains | 0.05 |
| | | Milled food grains | Nil |
| | | Vegetables | 0.5 |
| 9. | Dichlorvos (content of di- chloroacetaldehyde (D.C.A.) be reported where possible) | Food grains | 1.0 |
| | | Milled food grains | 0.25 |
| | | Vegetables | 0.15 |
| | | Fruits | 0.1 |
| 10. | Dicofol | Fruits and Vegetables | 5.0 |
| | | Tea (dry manufactured) | 5.0 |
| | | Chillies | 1.0 |
| 11. | Dimethoate (residue to be determined as dimethoate and expressed as dimethoate) | Fruits and Vegetables | 2.0 |
| | | Chillies | 0.5 |

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|---|---|---|---|
| 12. | Endosulfan (residues are measured and reported as total of endosulfan A and B and endosulfan-sulphate) | Fruits and Vegetables | 2.0 |
| | | Cottonseed | 0.5 |
| | | Cottonseed oil (crude) | 0.2 |
| **(1)** | **(2)** | **(3)** | **(4)** |
| | | Bengal gram | 0.20 |
| | | Pigeon Pea | 0.10 |
| | | Fish | 0.20 |
| | | Chillies | 1.0 |
| | | Cardamom | 1.0 |
| 13. | Endosulfan A | Carbonated Water | 0.001 |
| 14. | Endosulfan B | Carbonated Water | 0.001 |
| 15. | Endosulfan-Sulphate | Carbonated Water | 0.001 |
| 16. | Fenitrothion | Food grains | 0.02 |
| | | Milled food grains | 0.005 |
| | | Milk and Milk Products | 0.05 (on a fat basis) |
| | | Fruits | 0.5 |
| | | Vegetables | 0.3 |
| | | Meat | 0.03 |
| 17. | Heptachlor (combined residues of heptachlor and its epoxide to be determined and expressed as Heptachlor) | Food grains | 0.01 |
| | | Milled food grains | 0.002 |
| | | Milk and Milk Products | 0.15(on a Fat basis) |
| | | Vegetables | 0.05 |
| 18. | Hydrogen cyanide | Food grains | 37.5 |
| | | Milled food grains | 3.0 |
| 19. | Hydrogen Phosphide | Food grains | Nil |
| | | Milled food grains | Nil |
| 20. | Inorganic bromide (determined and expressed as total bromide from all sources) | Foodgrains | 25.0 |
| | | Milled Foodgrains | 25.0 |
| | | Fruits | 30.0 |
| | | Dried fruits | 30.0 |
| | | Spices | 400.0 |
| 21. | Hexachlorocycle hexane and its Isomers | | |
| | (a) Alfa ($\alpha$) Isomer: | Rice grain unpolished | 0.10 |
| | | Rice grain polished | 0.05 |
| | | Milk (whole) | 0.05 |
| | | Fruits and vegetable | 1.00 |
| | | Fish | 0.25 |
| | | Carbonated Water | 0.001 |
| | (b) Beta ($\beta$) Isomer : | Rice grain Unpolished | 0.10 |
| | | Rice grain polished | 0.05 |
| | | Milk (whole) | 0.02 |

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|---|---|---|---|
| | | Fruits and vegetable | 1.00 |
| | | Fish | 0.25 |
| | | Carbonated Water | 0.001 |
| **(1)** | **(2)** | **(3)** | **(4)** |
| | (c) Gamma (γ) Isomer (Known as Lindane) | Food grains except rice | 0.10 |
| | | Milled food grains | Nil |
| | | Rice grain Unpolished | 0.10 |
| | | Rice grain polished | 0.05 |
| | | Milk | 0.01 (on whole basis) |
| | | Milk products | 0.20 |
| | | Milk products (having less than 2 per cent fat) | 0.20 (on whole basis) |
| | | Fruits and vegetable | 1.00 |
| | | Fish | 0.25 |
| | | Eggs | 0.10 (on shell free basis) |
| | | Meat and poultry | 2.00 (on whole basis) |
| | | Carbonated Water | 0.001 |
| | (d) Delta (δ) Isomer : | Rice grain Unpolished | 0.10 |
| | | Rice grain Polished | 0.05 |
| | | Milk (whole) | 0.02 |
| | | Fruits & vegetables | 1.00 |
| | | Fish | 0.25 |
| | | Carbonated Water | 0.001 |
| 22. | Malathion (Malathion to be determined and expressed as combined residues of malathion and malaoxon) | Food grains | 4.0 |
| | | Milled food grains | 1.0 |
| | | Fruits | 4.0 |
| | | Vegetables | 3.0 |
| | | Dried fruits | 8.0 |
| | | Carbonated Water | 0.001 |
| 23. | Parathion (Combined residues of parathion and paraoxon to be determined and expressed as parathion) | Fruits and Vegetables | 0.5 |
| 24. | Parathion methyl (combined residues of parathion methyl and its oxygen analogue to be determined and expressed asparathion methyl) | Fruits | 0.2 |
| | | Vegetables | 1.0 |
| 25. | Phosphamidon residues (expressed as the sum of phosphamidon and its desethyl derivative) | Foodgrains | 0.05 |
| | | Milled foodgrains | Nil |
| | | Fruits and Vegetables | 0.2 |
| 26. | Pyrethrins (sum of pyrethrins I & II and other structurally related insecticide Ingredients of pyrethrum) | Foodgrains | Nil |
| | | Milled foodgrains | Nil |
| | | Fruits and Vegetables | 1.0 |
| 27. | Chlorienvinphos (Residues to be measured as alpha and beta isomers of Chlorienvinphos | Foodgrains | 0.025 |
| | | Milled Foodgrains | 0.006 |
| | | Milk and Milk Products | 0. 2 (fat basis) |

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| | | | |
|---|---|---|---|
| | | Meat and Poultry | 0.2 (carcass fat) |
| | | Vegetables | 0.05 |
| | | Groundnuts | 0.05 (shell free basis) |
| | | Cotton seed | 0.05 |
| 28. | Chlorobenzilate | Fruits | 1.0 |
| | | Dry Fruits, Almonds and Walnuts | 0.2 (shell free basis) |
| 29. | Chlorpyrifos | Foodgrains | 0.05 |
| | | Milled foodgrains | 0.01 |
| | | Fruits | 0.5 |
| | | Potatoes and Onions | 0.01 |
| | | Cauli Flower and Cabbage | 0.01 |
| | | Other vegetables | 0.2 |
| | | Meat and Poultry | 0.1 (carcass fat) |
| | | Milk and Milk Products | 0.01(fat basis) |
| | | Cotton seed | 0.05 |
| | | Cottonseed oil (crude) | 0.025 |
| | | Carbonated Water | 0.001 |
| 30. | 2,4D | Foodgrains | 0.01 |
| | | Milled foodgrains | 0.003 |
| | | Potatoes | 0.2 |
| | | *Milk and Milk Products | 0.05 |
| | | *Meat and Poultry | 0.05 |
| | | Eggs | 0.05 (shell free basis) |
| | | Fruits | 2.0 |
| 31. | Ethion (Residues to bedetermined as ethion andIts oxygen analogueand expressed as ethion) | Tea (dry manufactured) | 5.0 |
| | | Cucumber and Squash | 0.5 |
| | | Other Vegetables | 1.0 |
| | | Cotton seed | 0.5 |
| | | *Milk and Milk Products | 0.5 (fat basis) |
| | | *Meat and Poultry | 0.2 (carcass Fat basis) |
| | | Eggs | 0.2 (shell free basis) |
| | | Food grains | 0.025 |
| | | Milled food grains | 0.006 |
| | | Peaches | 1.0 |
| | | Other fruits | 2.0 |
| | | Dry fruits | 0.1 (shell free basis) |
| 32. | Formothion(Determined as dimethoate and its oxygen Analogue and expressed as dimethoate except in case of citrus fruits where it is to be determined as formothion) | Citrus fruits | 0.2 |
| | | Other fruits | 1.0 |
| | | Vegetable | 2.0 |
| | | Peppers and Tomatoes | 1.0 |

Insecticides

| | | | |
|---|---|---|---|
| 33. | Monocrotophos | Food grains | 0.025 |
| | | Milled Food grains | 0.006 |
| **(1)** | **(2)** | **(3)** | **(4)** |
| | | Citrus fruits | 0.2 |
| | | Other fruits | 1.0 |
| | | Carrot, Turnip, Potatoes and Sugar beet | 0.05 |
| | | Onion and Peas | 0.1 |
| | | Other Vegetables | 0.2 |
| | | Cottonseed | 0.1 |
| | | Cottonseed oil (raw) | 0.05 |
| | | *Meat and Poultry | 0.02 |
| | | *Milk and Milk Products | 0.02 |
| | | Eggs | 0.02 (shell free basis) |
| | | Coffee (Raw beans) | 0.1 |
| | | Chillies | 0.2 |
| | | Cardamom | 0.5 |
| 34. | Paraquat Dichloride (Determined as Paraquat cations) | Food grains | 0.1 |
| | | Milled food grains | 0.025 |
| | | Potato | 0.2 |
| | | Other vegetables | 0.05 |
| | | Cotton seed | 0.2 |
| | | Cottonseed oil (edible refined) | 0.05 |
| | | *Milk (whole) | 0.01 |
| | | Fruits | 0.05 |
| 35. | Phosalone | Pears | 2.0 |
| | | Citrus fruits | 1.0 |
| | | Other fruits | 5.0 |
| | | Potatoes | 0.1 |
| | | Other vegetables | 1.0 |
| | | Rapeseed/Mustard Oil (crude) | 0.05 |
| 36. | Trichlorfon | Foodgrains | 0.05 |
| | | Milled foodgrains | 0.0125 |
| | | Sugar beet | 0.05 |
| | | Fruits and Vegetables | 0.1 |
| | | Oil seeds | 0.1 |
| | | Edible Oil (refined) | 0.05 |
| | | *Meat and Poultry | 0.1 |
| | | *Milk (whole) | 0.05 |
| 37. | Thiometon(Residues determined as thiometon its sulfoxide and sulphone expressed as thiometon) | Food grains | 0.025 |
| | | Milled food grains | 0.006 |
| | | Fruits | 0.5 |

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|---|---|---|---|
| | | Potato, Carrots and Sugar beets | 0.05 |
| | | Other vegetables | 0.5 |
| **(1)** | **(2)** | **(3)** | **(4)** |
| 38. | Acephate | Safflower seed | 2.0 |
| | | Cotton Seed | 2.0 |
| 39. | Methamido-phos (A metabolite of Acephate) | Safflower seed | 0.1 |
| | | Cotton seed | 0.1 |
| 40. | Aldicarb (sum of Aldicarb its sulphoxideand sulphone, expressedas Aldicarb) | Potato | 0.5 |
| | | Chewing Tobacco | 0.1 |
| 41. | Atrazine | Maize | Nil |
| | | Sugarcane | 0.25 |
| 42. | Carbendazim | Food grains | 0.50 |
| | | Milled food grains | 0.12 |
| | | Vegetables | 0.50 |
| | | Mango | 2.00 |
| | | Banana (whole) | 1.00 |
| | | Other fruits | 5.00 |
| | | Cotton seed | 0.10 |
| | | Groundnut | 0.10 |
| | | Sugar beet | 0.10 |
| | | Dry fruits | 0.10 |
| | | Eggs | 0.10 (shell free basis) |
| | | Meat & Poultry | 0.10 (Carcass fat basis) |
| | | Milk & Milk Products | 0.10 (fat basis) |
| 43. | Benomyl | Food grains | 0.50 |
| | | Milled food grains | 0.12 |
| | | Vegetables | 0.50 |
| | | Mango | 2.00 |
| | | Banana (whole) | 1.00 |
| | | Other fruits | 5.00 |
| | | Cotton seed | 0.10 |
| | | Groundnut | 0.10 |
| | | Sugar beet | 0.10 |
| | | Dry fruits | 0.10 |
| | | Eggs | 0.10 (shell free basis) |
| | | Meat & Poultry | 0.10 (carcass fat basis) |
| | | Milk & Milk Products | 0.10 (fat basis) |
| 44. | Captan | Fruit & Vegetables | 15.00 |
| 45. | Carbofuran (sum of carbofuran and 3-hydroxy carbofuran expressed as carbofuran) | Food grains | 0.10 |
| | | Milled food grains | 0.03 |

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|---|---|---|---|
| | | Fruit & Vegetables | 0.10 |
| | | Oil seeds | 0.10 |
| **(1)** | **(2)** | **(3)** | **(4)** |
| | | Sugarcane | 0.10 |
| | | Meat & Poultry | 0.10 (carcass fat basis) |
| | | Milk & Milk Products | 0.05 (fat basis) |
| 46. | Copper Oxychloride (determined as copper) | Fruit | 20.00 |
| | | Potato | 1.00 |
| | | Other vegetables | 20.00 |
| 47. | Cypermethrin (sum of isomers) (fat soluble residue) | Wheat grains | 0.05 |
| | | Milled wheat grains | 0.01 |
| | | Brinjal | 0.20 |
| | | Cabbage | 2.00 |
| | | Bhindi | 0.20 |
| | | Oil seeds except groundnut | 0.20 |
| | | Meat and Poultry | 0.20 (carcass fat basis |
| | | Milk and Milk Products | 0.01 (fat basis) |
| 48. | Decamethrin/ Deltamethrin | Cotton Seed | 0.10 |
| | | Food grains | 0.50 |
| | | Milled Foodgrains | 0.20 |
| | | Rice | 0.05 |
| 49. | Edifenphos | Rice | 0.02 |
| | | Rice bran | 1.00 |
| | | Eggs | 0.01(shell free basis) |
| | | Meat and poultry | 0.02 (carcass fat basis) |
| | | Milk and Milk products | 0.01( fat basis) |
| 50. | Fenthion (sum of fenthion, its oxygen | Food grains | 0.10 |
| | analogue and their sulphoxides and sulphones | Milled food grains | 0.03 |
| | expressed as fenthion) | Onion | 0.10 |
| | | Potatoes | 0.05 |
| | | Beans | 0.10 |
| | | Peas | 0.50 |
| | | Tomatoes | 0.50 |
| | | Other vegetables | 1.00 |
| | | Musk melon | 2.00 |
| | | Meat and Poultry | 2.00 (carcasss fat basis) |
| | | Milk and Milk products | 0.05 (fat basis) |
| 51. | Fenvalerate (fat soluble residue) | Cauliflower | 2.00 |
| | | Brinjal | 2.00 |

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|---|---|---|---|
| | | Okra | 2.00 |
| | | Cotton Seed | 0.20 |
| **(1)** | **(2)** | **(3)** | **(4)** |
| | | Cotton seed oil | 0.10 |
| | | Meat and Poultry | 1.00 (carcass fat basis) |
| | | Milk and Milk Product | 0.01 (fat basis) |
| 52. | Dithiocarbamates (the residue tolerance limit are determined and expressed as mg/CS2/kg and refer separately to the residues arising from any or each group of dithiocarbamates | Food Grains | 0.20 |
| | | Milled food grains | 0.05 |
| | | Potatoes | 0.10 |
| | (a) Dimethyl dithiocarbamates residue resulting from the use of ferbam or ziram, and | Tomatoes | 3.00 |
| | (b) Ethylene bis- dithiocarbamates resulting from the use of mancozeb, maneb or zineb (including zineb derived from nabam plus zinc sulphate) | Cherries | 1.00 |
| | | Other fruits | 3.00 |
| | (c) Mancozeb | Chillies | 1.0 |
| 53. | Phenthoate | Foodgrains | 0.05 |
| | | Milled foodgrains | 0.01 |
| | | Oilseeds | 0.03 |
| | | Edible oils | 0.01 |
| | | Eggs | 0.05 (shell free basis) |
| | | Meat & Poultry | 0.05 (carcass fat basis) |
| | | Milk & Milk products | 0.01 (fat basis) |
| 54. | Phorate (sum ofPhorate, its oxygenanalogue and theirsulphoxides and sulphones,expressed as phorate) | Foodgrains | 0.05 |
| | | Milled foodgrains | 0.01 |
| | | Tomatoes | 0.10 |
| | | Other vegetables | 0.05 |
| | | Fruits | 0.05 |
| | | Oil seeds | 0.05 |
| | | Edible oils | 0.03 |
| | | Sugarcane | 0.05 |
| | | Eggs | 0.05 (shell free basis) |
| | | Meat & Poultry | 0.05 (carcass fat basis) |
| | | Milk & Milk Products | 0.05 (fat basis) |
| 55. | Simazine | Maize | Nil |
| | | Sugarcane | 0.25 |
| 56. | Pirimiphos-methyl | Rice | 0.50 |
| | | Food grains except Rice | 5.00 |
| | | Milled food grains except rice | 1.00 |
| | | Eggs | 0.05 (shell free basis) |
| | | Meat & Poultry | 0.05 (carcass fat basis) |

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|---|---|---|---|
| | | Milk & Milk Products | 0.05 (fat basis) |
| 57. | Alachlor | Cotton Seed | 0.05 |
| **(1)** | **(2)** | **(3)** | **(4)** |
| | | Groundnut | 0.05 |
| | | Maize | 0.10 |
| | | Soyabeans | 0.10 |
| 58. | Alfa Nephthyl AceticAcid (A.N.A.) | Pine-Apple | 0.50 |
| 59. | Bitertanol | Wheat | 0.05 |
| | | Groundnut | 0.10 |
| 60. | Captafol | Tomato | 5.00 |
| 61. | Cartaphydrochloride | Rice | 0.50 |
| 62. | Chlormequatchloride | Grape | 1.00 |
| | | Cotton Seed | 1.00 |
| 63. | Chlorothalonil | Groundnut | 0.10 |
| | | Potato | 0.10 |
| 64. | Diflubenzuron | Cotton Seed | 0.20 |
| 65. | Dodine | Apple | 5.00 |
| 66. | Diuron | Cotton Seed | 1.00 |
| | | Banana | 0.10 |
| | | Maize | 0.50 |
| | | Citrus (Sweet Orange) | 1.00 |
| | | Grapes | 1.00 |
| 67. | Ethephon | Pine Apple | 2.00 |
| | | Coffee | 0.10 |
| | | Tomato | 2.00 |
| | | Mango | 2.00 |
| 68. | Fluchloralin | Cotton Seed | 0.05 |
| | | Soya Beans | 0.05 |
| 69. | Malic Hydrazide | Onion | 15.00 |
| | | Potato | 50.00 |
| 70. | Metalyxyl | Bajra | 0.05 |
| | | Maize | 0.05 |
| | | Sorghum | 0.05 |
| 71. | Methomyl | Cotton Seed | 0.10 |
| 72. | Methyl Chloro-phenoxy-acetic Acid(M.C.P.A.) | Rice | 0.05 |
| | | Wheat | 0.05 |
| 73. | Oxadiazon | Rice | 0.03 |
| 74. | Oxydemeton methyl | Food-grains | 0.02 |
| 75. | Permethrin | Cucumber | 0.50 |
| | | Cotton Seed | 0.50 |

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|---|---|---|---|
| | | Soya Beans | 0.05 |
| | | Sunflower Seed | 1.00 |
| 76. | Quinolphos | Rice | 0.01 |
| **(1)** | **(2)** | **(3)** | **(4)** |
| | | Pigeon pea | 0.01 |
| | | Cardamom | 0.01 |
| | | Tea | 0.01 |
| | | Fish | 0.01 |
| | | Chillies | 0.2 |
| 77. | Thiophenatemethyl | Apple | 5.00 |
| | | Papaya | 7.00 |
| 78 | Triazophos | Chillies | 0.2 |
| | | Rice | 0.05 |
| | | Cotton seed oil | 0.1 |
| | | Soyabean oil | 0.05 |
| 79 | Profenofos | Cotton seed oil | 0.05 |
| 80 | Fenpropathrin | Cotton seed oil | 0.05 |
| 81 | Fenarimol | Apple | 5.0 |
| 82 | Hexaconazole | Apple | 0.1 |
| 83 | Iprodione | Rape seed | 0.5 |
| | | Mustard seed | 0.5 |
| | | Rice | 10.0 |
| | | Tomato | 5.0 |
| | | Grapes | 10.0 |
| 84. | Tridemorph | Wheat | 0.1 |
| | | Grapes | 0.5 |
| | | Mango | 0.05 |
| 85. | Penconazole | Grapes | 0.2 |
| 86 | Propiconazole | Wheat | 0.05 |
| 87 | Myclobutanil | Groundnut seed | 0.1 |
| | | Grapes | 1.0 |
| 88 | Sulfosulfuron | Wheat | 0.02 |
| 89 | Trifluralin | Wheat | 0.05 |
| 90 | Ethoxysulfuron | Rice | 0.01 |
| 91 | Metolachlor | Soyabean Oil | 0.05 |
| 92 | Glyphosphate | Tea | 1.0 |
| 93 | Linuron | Pea | 0.05 |
| 94 | Oxyfluorfen | Rice | 0.05 |
| | | Groundnut Oil | 0.05 |
| 95 | Carbosulfan | Rice | 0.2 |
| 96 | Tricyclazole | Rice | 0.02 |
| 97 | Imidacloprid | Cotton seed Oil | 0.05 |

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| | | | |
|---|---|---|---|
| | | Rice | 0.05 |
| 98 | Butachlor | Rice | 0.05 |
| 99 | Chlorimuron-ethyl | Wheat | 0.05 |
| **(1)** | **(2)** | **(3)** | **(4)** |
| 100 | Diclofop-methyl | Wheat | 0.1 |
| 101 | Metribuzin | Soyabean Oil | 0.1 |
| 102 | Lambdacyhalothrin | Cotton seed Oil | 0.05 |
| 103 | Fenazaquin | Tea | 3.0 |
| 104 | Pendimethalin | Wheat | 0.05 |
| | | Rice | 0.05 |
| | | Soyabean Oil | 0.05 |
| | | Cotton seed Oil | 0.05 |
| 105 | Pretilachlor | Rice | 0.05 |
| 106 | Fluvalinate | Cotton seed Oil | 0.05 |
| 107 | Metasulfuron-methyl | Wheat | 0.1 |
| 108 | Methabenzthiazuron | Wheat | 0.5 |
| 109 | Imazethapyr | Soyabean oil | 0.1 |
| | | Groundnut oil | 0.1 |
| 110 | Cyhalofop-butyl | Rice | 0.5 |
| 111 | Triallate | Wheat | 0.05 |
| 112 | Spinosad | Cotton seed oil | 0.02 |
| | | Cabbage | 0.02 |
| | | Cauliflower | 0.02 |
| 113 | Thiamethoxam | Rice | 0.02 |
| 114 | Fenobucarb | Rice | 0.01 |
| 115 | Thiodicarb | Cotton seed oil | 0.02 |
| 116 | Anilophos | Rice | 0.1 |
| 117 | Fenoxy-prop-p-ethyl | Wheat | 0.02 |
| | | Soyabean seed | 0.02 |
| 118 | Glufosinate-ammonium | Tea | 0.01 |
| 119 | Clodinafop-propanyl | Wheat | 0.1 |
| 120 | Dithianon | Apple | 0.1 |
| 121 | Kitazin | Rice | 0.2 |
| 122 | Isoprothiolane | Rice | 0.1 |
| 123 | Acetamiprid | Cotton seed oil | 0.1 |
| 124 | Cymoxanil | Grapes | 0.1 |
| 125 | Triadimefon | Wheat | 0.5 |
| | | Pea | 0.1 |
| | | Grapes | 2.0 |
| 126 | Fosetyl-A1 | Grapes | 10 |
| | | Cardamom | 0.2 |
| 127 | Isoproturon | Wheat | 0.1 |

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| | | | |
|---|---|---|---|
| 128 | Propargite | Tea | 10.0 |
| 129 | Difenoconazole | Apple | 0.01 |
| 130 | b-Cyfluthrin | Cotton seed | 0.02 |
| **(1)** | **(2)** | **(3)** | **(4)** |
| 131 | Ethofenprox | Rice | 0.01 |
| 132 | Bifenthrin | Cotton seed | 0.05 |
| 133 | Benfuracarb | Red Gram | 0.05 |
| | | Rice | 0.05 |
| 134 | Quizalofop-ethyl | Soyabean seed | 0.05 |
| 135 | Flufenacet | Rice | 0.05 |
| 136 | Buprofezin | Rice | 0.05 |
| 137 | Dimethomorph | Grapes | 0.05 |
| | | Potatoes | 0.05 |
| 138 | Chlorfenopyr | Cabbage | 0.05 |
| 139 | Indoxacarb | Cotton seed | 0.1 |
| | | Cottonseed oil | 0.1 |
| | | Cabbage | 0.1 |
| 140 | Metiram | Tomato | 5.0 |
| | | Ground nut seed | 0.1 |
| | | Ground nut seed oil | 0.1 |
| 141 | Lufenuron | Cabbage | 0.3 |
| 142 | Carpropamid | Rice | 1.0 |
| 143 | Novaluron | Cottonseed | 0.01 |
| | | Cottonseed oil | 0.01 |
| | | Tomato | 0.01 |
| | | Cabbage | 0.01 |
| 144 | Oxadiargyl | Rice | 0.1 |
| 145 | Pyrazosulfuron ethyl | Rice | 0.01 |
| 146 | Clomazone | Rice | 0.01 |
| | | Soyabean seed | 0.01 |
| | | Soyabean seed oil | 0.01 |
| 147 | Tebuconazole | Wheat | 0.05 |
| 148 | Propineb | Apple | 1.0 |
| | | Pomegranate | 0.5 |
| | | Potato | 0.5 |
| | | Green Chillies | 2.0 |
| | | Grapes | 0.5 |
| 149 | Thiochlorprid | Cotton seed | 0.05 |
| | | Cotton seed oil | 0.05 |
| | | Rice | 0.01 |

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*: Soluble in water, hence not necessary to mention on fat basis

***Explanation*** :— For the purpose of this regulation :

(a) the expression "insecticide" shall have the meaning assigned to it in the Insecticide Act, 1968 (46 of 1968);

(b) unless otherwise stated :

(i) maximum levels are expressed in mg./kg. on a whole product basis.

(ii) all foods refer to raw agricultural products moving in commerce.

2.3.2: ANTIBIOTIC AND OTHER PHARMA-COLOGICALLY ACTIVE SUBSTANCES

1) The amount of antibiotic mentioned in column (2), on the sea foods including shrimps, prawns or any other variety of fish and fishery products, shall not exceed the tolerance limit prescribed in column (3) of the table given below:—

Table

| S.No. | Name of Antibiotics | Tolerance limit mg/kg (ppm) |
|---|---|---|
| (1) | (2) | (3) |
| 1. | Tetracycline | 0.1 |
| 2. | Oxytetracycline | 0.1 |
| 3. | Trimethoprim | 0.05 |
| 4. | Oxolinic acid | 0.3 |

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2) The use of any of the following antibiotics and other Pharmacologically Active Substances shall be prohibited in any unit processing sea foods including shrimps, prawns or any other variety of fish and fishery products —

(i) All Nitrofurans including
- (a) Furaltadone
- (b) Furazolidone
- (c) Furylfuramide
- (d) Nifuratel
- (e) Nifuroxime
- (f) Nifurprazine
- (g) Nitrofurnatoin
- (h) Nitrofurazone

(ii) Chloramphenicol
(iii) Neomycin
(iv) Nalidixic acid
(v) Sulphamethoxazole
(vi) Aristolochia spp and preparations thereof
(vii) Chloroform
(viii) Chloropromazine
(ix) Cholchicine
(x) Dapsone
(xi) Dimetridazole
(xii) Metronidazole

(xiii) Ronidazole
(xiv) Ipronidazole
(xv) Other nitromidazoles
(xvi) Clenbuterol
(xvii) Diethylstibestrol (DES)
(xviii) Sulfanoamide drugs (except approved Sulfadimethoxine, Sulfabromomethazine and Sulfaethoxypyridazine)
(xix) Fluoroquinolones
(xx) Glycopeptides.

[1] **[** (3) The limit of antibiotics mentioned in column(2), in Honey on the basis of Limit of Quantification, shall not exceed the tolerance limit prescribed in column(3) when determined by the LC-MS/MS method in the table given below:—

**Table**

| **Sr.No.** | **Name of Antibiotics** | **Tolerance Limit (microgram/kg)** |
|---|---|---|
| **(1)** | **(2)** | **(3)** |
| 1. | Chloramphenicol | 0.3* |
| 2. | Nitrofurans and its metabolites | 0.5* either individually or collectively |
| 3. | Sulphonamides and its metabolites | 5.0* either individual or collectively |
| 4. | Streptomycin | 5.0* |
| 5. | Tetracycline | 5.0* |
| | (a) Oxytetracycline | 5.0* |
| | (b) Chlortetracycline | 5.0* |
| 6. | Ampicillin | 5.0* |
| 7. | Enrofloxacin | 5.0* |
| 8. | Ciprofloxacin | 5.0* |
| 9. | Erythromycin | 5.0* |
| 10. | Tylosin | 5.0* |

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* Limit of Quantification on the basis of LC-MS/MS method.**]**

[5] **[2.4. Limits of biotoxins in fish and fishery products:**

| **Sl. No.** | **Name of the contaminants** | **Article of food** | **Limit (µg/kg)** |
|---|---|---|---|
| **(1)** | **(2)** | **(3)** | **(4)** |
| 1. | Paralytic Shellfish Poison (PSP) | Bivalve Molluscs | 80 µg/100g (Saxitoxin Equivalent) |
| 2. | Amnesic Shellfish Poison (ASP) | Bivalve Molluscs | 20 µg/g (Domoic acid equivalent) |
| 3. | Diarrhetic shellfish poison (DSP) | Bivalve Molluscs | 160 µg of Okadaic acid equivalent/Kg |

| | | | |
|---|---|---|---|
| 4. | Azaspiracid poison (AZP) | Bivalve Molluscs | 160 µg of azaspiracid equivalent/Kg |
| 5. | Brevetoxin (BTX) | Bivalve Molluscs | 200 mouse units or equivalent/Kg**]** |

**[6] [2.5 Other Contaminants**

2.5.1: The contaminant mentioned in column 2 on the foods mentioned in column 3, shall not exceed the Maximum Level prescribed in column 4 of the Table given below:

| **Sl.No.** | **Name of the contaminants** | **Food** | **Maximum level (mg/kg)** |
|---|---|---|---|
| **(1)** | **(2)** | **(3)** | **(4)** |
| 1. | Melamine | Powdered infant formula | 1.0 |
| | | Liquid infant formula | 0.15 |
| | | Other foods | 2.5**]** |

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**[9 [**2.5.2 Histamine in Fish and Fishery Products contaminants, toxins and Residues

1. Fish species having potential to cause histamine poisoning

| **Sl.No.** | **Family** | **Scientific Name** | **Common Name** |
|---|---|---|---|
| 1. | Carangidae | *Alectis indica* | Indian Threadfish |
| | | *Alepes* spp. | Scad |
| | | *Atropus atropos* | Cleftbelly trevally |
| | | *Carangoides bartholomaei* | Yellow Jack |
| | | *Carangoides* spp. | Trevally |
| | | *Caranx crysos* | Blue runner |
| | | *Caranx* spp. | Jack/Trevally |
| | | *Decapterus koheru* | Koheru |
| | | *Decapterus russelli* | Indian scad |
| | | *Decapterus* spp. | Scad |
| | | *Elagatis bipinnulata* | Rainbow Runner |
| | | *Megalaspis cordyla* | Horse Mackerel/Torpedo Scad |
| | | *Nematistius pectoralis* | Roosterfish |
| | | *Oligoplites saurus* | Leather Jacket |
| | | *Pseudocaranx dentex* | White trevally |
| | | *Scomberoides commersonnianus* | Talang queenfish |
| | | *Scomberoides* spp. | Leather Jacket/Queen Fish |
| | | *Selene* spp. | Moonfish |
| | | *Seriola dumerili* | Greater/Japanese Amberjack or Rudder Fish |
| | | *Seriola lalandi* | Yellowtail Amberjack |

| | | | |
|---|---|---|---|
| | | *Seriola quinqueradiata* | Japanese Amberjack |
| | | *Seriola rivoliana* | Longfin Yellowtail |
| | | *Seriola* spp. | Amberjack or Yellowtail |
| | | *Trachurus capensis* | Cape Horse Mackerel |
| | | *Trachurus japonicas* | Japanese Jack Mackerel |
| | | *Trachurus murphyi* | Chilean Jack Mackerel |
| | | *Trachurus novaezelandiae* | Yellowtail Horse Mackerel |
| | | *Trachurus* spp. | Jack Mackerel/Horse Mackerel |
| | | *Trachurus trachurus* | Atlantic Horse Mackerel |
| | | *Uraspis secunda* | Cottonmouth jack |
| 2. | Chanidae | *Chanos chanos* | Milkfish |
| 3. | Clupeidae | *Alosa pseudoharengus* | Alewife |
| | | *Alosa* spp. | Herring |
| | | *Amblygaster sirm* | Spotted Sardinella |
| | | *Anodontostoma chacunda* | Chacunda gizzard shad |
| | | *Brevoortia patronus* | Gulf Menhaden |
| | | *Brevoortia* spp. | Menhaden |
| | | *Brevoortia tyrannus* | Atlantic Menhaden |
| | | *Clupea bentincki* | Araucanian herring |
| | | *Clupea harengus* | Atlantic herring |
| | | *Clupea pallasii pallasii* | Pacific herring |
| | | *Clupea* spp. | Pichard/Shad/Herring |
| | | *Dorosoma* spp. | Gizaard Shad |
| | | *Ethmalosa fimbriata* | Bonga Shad |
| | | *Ethmidium maculatum* | Pacific Menhaden |
| | | *Etrumeus sadina* | Red-eye round herring |
| | | *Harengula* spp. | Sprat/Herring |
| | | *Harengula thrissina* | Pacific flatiron herring |
| | | *Hilsa* spp. | Shad |
| | | *Nematolosa* spp. | Gizzard Shad |
| | | *Opisthonema libertate* | Pacific thread herring |
| | | *Opisthonema spp* | Thread Herring |
| | | *Opisthopterus tardoore* | Tardoore |
| | | *Sardina pilchardus* | European Pilchard |
| | | *Sardinella aurita* | Round Sardinella |
| | | *Sardinella gibbosa* | Gold stripe Sardinella |
| | | *Sardinella longiceps* | Indian Oil Sardine |
| | | *Sardinella maderensis* | Madeiran Sardinella |
| | | *Sardinella* spp. | Sardine |
| | | *Sardinops sagax* | South American Pilchard |
| | | *Sardinops* spp. | South American Pilchard |
| | | *Spratelloides gracilis* | Silver-stripe round herring |
| | | *Tenualosa ilisha* | Hilsa shad |
| | | *Tenualosa* spp. | Shad |
| 4 | Coryphaenidae | *Coryphaena hippurus* | Mahi-Mahi /Dolphin fish |

Indiacode

| | | | |
|---|---|---|---|
| 5 | Engraulidae | *Anchoa* spp. | Anchovy |
| | | *Anchoviella* spp. | Anchovy |
| | | *Cetengraulis mysticetus* | Pacific anchoveta |
| | | *Engraulis capensis* | Southern African anchovy |
| | | *Engraulis encrasicolus* | European anchovy |
| | | *Engraulis japonicus* | Japanese anchovy |
| | | *Engraulis ringens* | Peruvian anchovy |
| | | *Engraulis* spp. | Anchovy |
| | | *Stolephorus* spp. | Anchovy |
| 6 | Istiophoridae | *Istiompax indica* | Black Marlin |
| | | *Istiophorus albicans* | Atlantic sailfish |
| | | *Istiophorus platypterus* | Indo-Pacific sailfish |
| | | *Kajikia albida* | Atlantic white marlin |
| | | *Kajikia audax* | Striped Marlin |
| | | *Makaira mazara* | Indo-Pacific blue marlin |
| | | *Makaira* spp. | Marlin/Sailfish |
| | | *Tetrapturus* spp. | Marlin/Spearfish |
| | | *Tetrapturus* spp. | Spearfish |
| 7 | Mugilidae | *Mugil cephalus* | Flathead Grey Mullet |
| 8 | Pristigasteridae | *Ilisha* spp. | Ilisha/Pellona |
| | | *Pellona ditchella* | Indian pellona |
| 9 | Scombridae | *Acanthocybium solandri* | Wahoo |
| | | *Auxis* spp. | Bullet Tuna/Frigate Tuna |
| | | *Cybiosarda elegans* | Leaping Bonito |
| | | *Euthynnus affinis* | Little tuna or Kawakawa |
| | | *Euthynnus* spp. | Bonito |
| | | *Gasterochisma melampus* | Butterfly kingfish |
| | | *Grammatorcynus* spp. | Short Mackerel |
| | | *Gymnosarda unicolor* | Dogtooth tuna |
| | | *Katsuwonus pelamis* | Skipjack Tuna |
| | | *Orcynopsis unicolor* | Plain Bonito |
| | | *Rastrelliger brachysoma* | Short Mackerel |
| | | *Rastrelliger kanagurta* | Indian Mackerel |
| | | *Sarda spp* | Bonito |
| | | *Scomber australasicus* | Blue mackerel |
| | | *Scomber japonicas* | Chub mackerel |
| | | *Scomber scombrus* | Atlantic mackerel |
| | | *Scomber* spp. | Mackerel |
| | | *Scomberomorus cavalla* | King Mackerel |
| | | *Scomberomorus commerson* | Narrow-barred Spanish mackerel |
| | | *Scomberomorus guttatus* | Indo-Pacific king mackerel/Spotted Spanish Mackerel |
| | | *Scomberomorus niphonius* | Japanese Spanish mackerel |
| | | *Scomberomorus* spp. | Spanish Mackerel |
| | | *Scomeromorus lineolatus* | Streaked seerfish |

Indiacode

| | | | |
|---|---|---|---|
| | | *Thunnus alalunga* | Albacore Tuna |
| | | *Thunnus albacares* | Yellowfin Tuna |
| | | *Thunnus atlanticus* | Blackfin Tuna |
| | | *Thunnus maccoyi* | Southern bluefin tuna |
| | | *Thunnus obesus* | Bigeye Tuna |
| | | *Thunnus orientalis* | Pacific bluefin tuna |
| | | *Thunnus* spp. | Tuna |
| | | *Thunnus thynnus* | Atlantic bluefin tuna |
| | | *Thunnus tonggol* | Longtail Tuna |
| 10 | Xiphiidae | *Xiphias gladius* | Swordfish |

2. Limits of histamine level in fish and fishery products

| **S. No.** | **Product Category** | **Applicable to** | **Histamine Level** |
|---|---|---|---|
| 1. | Raw/Chilled/Frozen Finfish | Species with high amount of free histidine (Listed fish species with potential to cause histamine fish poisoning) | n=9, c=2; m=100 mg/kg, M=200 mg/kg |
| 2. | Thermally Processed Fishery Products | | n=9, c=2; m=100 mg/kg, M=200 mg/kg |
| 3. | Smoked fishery products | | n=9, c=2; m=100 mg/kg, M=200 mg/kg |
| 4. | Fish Mince/Surimi and analogues | | n=9, c=2; m=100 mg/kg, M=200 mg/kg |
| 5. | Battered and breaded fishery products | | n=9, c=2; m=100 mg/kg, M=200 mg/kg |
| 6. | Other Ready to Eat fishery products | | n=9, c=2; m=100 mg/kg, M=200 mg/kg |
| 7. | Other value added fishery products | | n=9, c=2; m=100 mg/kg, M=200 mg/kg |
| 8. | Other fish based products | | n=9, c=2; m=100 mg/kg, M=200 mg/kg |
| 9. | Dried/ Salted and Dried fishery products | | n=9, c=2; m=200 mg/kg, M=400 mg/kg |
| 10. | Fermented Fishery products | | n=9, c=2; m=200 mg/kg, M=400 mg/kg |
| 11. | Fish Pickle | | n=9, c=2; m=200 mg/kg, M=400 mg/kg |

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Where,

n : Number of units comprising the sample
c : Maximum allowable number of defective sample units
m : Acceptable level in a sample
M : Specified level when exceeded in one or more samples would cause the lot to be rejected

Satisfactory, if the following requirements are fulfilled:

1. the mean value observed is ≤ m
2. a maximum of c/n values observed are between m and M
3. no values observed exceed the limit of M,

Unsatisfactory, if the mean value observed exceeds m or more than c/n values are between m and M or one or more of the values observed are >M**.**

Note:

*1. Inserted by notification no. F. No. 1-12/Sci.Panel/(Notification)/FSSAI/2012, dated the 3rd December, 2014*

2. *Substituted by notification no. F.No. P.15025/264/13-PA/FSSAI, dated the 4th November, 2015*

*3. Inserted by notification no. F.No. 1-99/4/SP(Contaminants)/FSSAI/2014, dated the 4th November, 2015*

*4. Substituted by notification no. F.No.1-99/1/SP(contaminants)/FSSAI/2009, dated the 4th November, 2015*

*5. Inserted by notification no. F. No. 1-10(6)/Standards/SP(Fish and Fisheries Products)/FSSAI-2013, dated the 4th January, 2016*

*6. Inserted by notification no. F. No. P. 15025/264/13-PA/FSSAI, dated the 5th January, 2016.*

7. *Inserted by notification no. F. No. P.15025/264/13-PA/FSSAI, dated the 3rd May, 2016*

*8. Omitted by Notification F. No.1-99/SP (Contaminants)/REG/FSSAI/201,5 dated the 10th October, 2016*

9. *Inserted by notification no. F. No. 1-10(2)/Standards/SP(Fish and Fisheries Products)/FSSAI-2013, dated the 18th January , 2017*

*10. Inserted by notification no. F. No. P/15025/264/13-PA/FSSAI, dated the 21st July, 2017.*

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