LEGAL NOTICE No 65/2003

FISHERY PRODUCTS ADDITIVES REGULATIONS

PART I

PRELIMINARY

Art. 1 Short Title
These Regulations may be cited as the “Fishery Products Additives Regulations Legal Notice No 65/2003”.

Art. 2 Scope of Application
These Regulations lay down measures to monitor the conditions for the use of food additives.

PART II

CONDITIONS FOR THE USE OF FOOD ADDITIVES

Art. 3 Food additives in general, Quantum satis and Maximum levels.
(1) Fishery products to be marketed shall not contain sweeteners, colours or food additives other than sweeteners and colours:
(a) not included in these Regulations or
(b) in excess of any maximum quantity or proportion permitted by the Regulations of Part II.
(2) In the context of these Regulations, “quantum satis” means no maximum level is specified. However, colouring matters can be used according to the best manufacturing practices at a level not higher than is necessary to achieve the intended purpose and should not mislead the consumer.
(3) Maximum levels indicated in these Regulations refer to marketed fishery products unless otherwise stated.

CHAPTER 1: Sweeteners

Art. 4 Sweeteners: E950, E951, E954 and E959.
(1) Sweeteners within the meaning of these Regulations are food additives that are used to impart a sweet taste to processed fishery products.
(2) The following sweeteners and their corresponding concentrations may only be used in the manufacture of sweet-sour preserves and semi-preserves of fish and marinades of fish, crustaceans and molluscs:
   - E950 Acesulfame K at 200 mg/kg
   - E951 Aspartame at 300 mg/kg
   - E954 Saccharine and its Na, K and Ca salts at 160 mg/kg
   - E959 Neohesperidine DC at 30 mg/kg
CHAPTER 2: Colours

Art. 5 Colours: In general and in specific cases.

(1) "Colours" within the meaning of these Regulations are substances that add or restore colour in food.

Colours include:

(a) natural constituents of foodstuffs as well as natural sources that are normally not consumed as foodstuffs as they are and not normally used as characteristic ingredients of food; and

(b) preparations obtained from foodstuffs and other natural sources by physical and/or chemical extraction resulting in a selective extraction of the pigments relative to the nutritive or aromatic constituents.

(2) However, the following substances shall not be considered colours for the purpose of these Regulations:

(a) dried or concentrated foodstuffs and flavourings incorporated during the manufacture of compound foodstuffs to impart aromatic, sapid or nutritive properties together with a secondary colouring effect. These include paprika, turmeric and saffron; and

(b) substances used for the colouring of the inedible external parts of foodstuffs.

(3) The colours E160 b Annatto, Bixin and Norbixin may be used at 10 mg/kg in smoked fishery products.

(4) For the following processed fishery products:

(a) fish paste and crustacean paste

(b) pre-cooked crustaceans;

(c) salmon substitutes;

(d) surimi;

(e) fish roe; and

(f) smoked fish.

the undermentioned colours may be used at quantum satis:

E101 (i) Riboflavin
(ii) Riboflavin-5'-phosphate;

E140 Chlorophylls and chlorophyllins;

E141 Copper complexes of chlorophylls and chlorophyllins;

E150a Plain caramel;

E150b Caustic sulphite caramel;

E150c Ammonia caramel;

E150d Sulphite ammonia caramel;

E153 Vegetable carbon;

E160a Carotenes;

E160c Paprika extract, capsanthin, capsorubin;

E162 Beetroot red, betanin;

E163 Anthocyanins;

E170 Calcium carbonate;

E171 Titanium dioxide; and

E172 Iron oxides and hydroxides.

(5) The following colours:

E100 Curcumin;

E102 Tartrazine;
E104 Quinoline Yellow;
E110 Sunset Yellow FCF
  Orange Yellow S;
E120 Cochineal, Carminic acid, Carmines;
E122 Azorubine, Carmoisine;
E124 Ponceau 4R, Cochineal Red A;
E129 Allura Red AC;
E131 Patent Blue V;
E132 Indigotine, Indigo carmine;
E133 Brilliant Blue FCF;
E142 Green S;
E151 Brilliant Black BN, Black PN;
E155 Brown HT;
E160d Lycopene;
E160c Beta-apo-8'-carotenal (C30);
E160f Ethyl ester of Beta-apo-8'-carotenic acid (C30); and
E161b Lutein.

may be used alone or in combination with:
(a) fish paste and crustacean paste up to a maximum level of 100 mg/kg;
(b) pre-cooked crustaceans up to a maximum level of 250 mg/kg;
(c) salmon substitutes up to a maximum level of 500 mg/kg;
(d) surimi up to a maximum level of 500 mg/kg;
(e) fish roe up to a maximum level of 300 mg/kg; and
(f) smoked fish up to a maximum level of 100 mg/kg.

CHAPTER 3: Food additives other than colours and sweeteners

Art. 6 Other food additives: in general and in specific cases.

(1) Food additives other than colours and sweeteners within the meaning of these Regulations are:
(a) "preservatives" - substances which prolong the shelf-life of foodstuffs by protecting them against deterioration caused by micro-organisms;
(b) "antioxidants" - substances which prolong the shelf-life of foodstuffs by protecting them against deterioration caused by oxidation, such as fat rancidity and colour changes;
(c) "carriers (including carrier solvents)" - substances used to dissolve, dilute, disperse or otherwise physically modify a food additive without altering its technological function (and without exerting any technological effect themselves) in order to facilitate its handling, application or use;
(d) "acids" - substances which increase the acidity of a foodstuff and/or impart a sour taste to it;
(e) "acidity regulators" - substances which regulate the acidity or alkalinity of a foodstuff;
(f) "anti-caking agents" - substances which reduce the tendency of individual particles of a foodstuff to adhere to each other;
(g) "anti-foaming agents" - substances which prevent or reduce foaming;
(h) "bulking agents" - substances which contribute to the volume of a foodstuff without contributing significantly to its available energy value;
(i) "emulsifiers" - substances which form or retain a homogenous mixture of two or more immiscible phases in a foodstuff such as oil and water;
(j) "emulsifying salts" - substances that convert proteins into a dispersed form to bring about a homogenous distribution of the fat with the other constituents;
(k) "firming agents" - substances which make or keep tissues firm or crisp, or interact with gelling agents to produce or strengthen a gel;
(l) "flavour enhancers" - substances which enhance the existing taste and/or odour of a foodstuff;
(m) "foaming agents" - substances which form a homogenous dispersion of a gaseous phase in a liquid or solid foodstuff;
(n) "gelling agents" - substances which give a foodstuff a jelly texture;
(o) "glazing agents including lubricants" - substances which, when applied to the external surface of a foodstuff, impart a shiny appearance or provide a protective coating;
(p) "Humectants" - substances which counteract the effect of a low degree of surrounding humidity, or promote the dissolution of a powder in an aqueous medium to prevent foodstuffs from drying out.
(q) "Modified starches" - substances obtained by one or more physical or enzymatic treatment of edible starches that were acid or alkali thinned or bleached;
(r) "packaging gases" - gases other than air, introduced into a container before, during or after packaging;
(s) "propellants" - gases other than air which expel a foodstuff from a container;
(t) "raising agents" - substances or combinations of substances which liberate gas and thereby increase the volume of a batter;
(u) "sequestrants" - substances which form chemical complexes with metallic ions;
(v) "stabilisers" - substances which retain the physico-chemical state of a foodstuff; stabilisers include substances which enable the maintenance of a homogenous dispersion of two or more immiscible substances in a foodstuff and include also substances which stabilise, retain or intensify an existing colour of a foodstuff; and
(w) "thickeners" - substances that increase the viscosity of a foodstuff.

For the purpose of these Regulations the following are not considered food additives:
(a) substances used for the treatment of potable water;
(b) products containing pectin that are derived from dried apple pomace or peel of citrus fruits, or from a mixture of both, by the action of dilute acid followed by partial neutralisation with sodium or potassium salts ("liquid pectin");
(c) chewing gum bases;
(d) white or yellow dextrin, roasted or dextrinated starch, starch modified by acid or alkali treatment, bleached starch, physically modified starch and starch treated by amylolitic enzymes;
(e) ammonium chloride;
(f) blood plasma, edible gelatine, protein hydrolysates and their salts, milk protein and gluten;
(g) amino acids and their salts other than glutamic acid, glycine, cysteine and cystine and their salts and having no additive function;
(h) caseinates and casein; and
(i) inulin.

(3) In processed fishery products, the undermentioned food additives may be used at quantum satis:

E170 Calcium carbonates  
(i) Calcium carbonate  
(ii) Calcium hydrogen carbonate
E260 Acetic acid
E261 Potassium acetate
E262 Sodium acetates  
(i) Sodium acetate  
(ii) Sodium hydrogen acetate (diacetate)
E263 Calcium acetate
E270 Lactic acid
E290 Carbon dioxide
E296 Malic acid
E300 Ascorbic acid
E301 Sodium ascorbate
E302 Calcium ascorbate
E304 Fatty acid esters of ascorbic acid  
(i) Ascorbyl palmitate  
(ii) Ascorbyl stearate
E306 Tocopherol-rich extract
E307 Alpha-tocopherol
E308 Gamma-tocopherol
E309 Delta-tocopherol
E322 Lecithins
E325 Sodium lactate
E326 Potassium lactate
E327 Calcium lactate
E330 Citric acid
E331 Sodium citrates  
(i) Monosodium citrate  
(ii) Disodium citrate  
(iii) Trisodium citrate
E332 Potassium citrates  
(i) Monopotassium citrate  
(ii) Tripotassium citrate
E333 Calcium citrates  
(i) Monocalcium citrate  
(ii) Dicalcium citrate  
(iii) Tricalcium citrate
E334 Tartaric acid (L(+)-)
E335 Sodium tartrates  
(i) Monosodium tartrate  
(ii) Disodium tartrate
E336 Potassium tartrates  
(i) Monopotassium tartrate
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   (ii) Potassium hydrogen carbonate
E503 Ammonium carbonates
   (i) Ammonium carbonate
   (ii) Ammonium hydrogen carbonate
E504 Magnesium carbonates
   (i) Magnesium carbonate
   (ii) Magnesium hydroxide carbonate (syn. Magnesium hydrogen carbonate)
E507 Hydrochloric acid
E508 Potassium chloride
E509 Calcium chloride
E511 Magnesium chloride
E513 Sulphuric acid
E514 Sodium sulphates
   (i) Sodium sulphate
   (ii) Sodium hydrogen sulphate
E515 Potassium sulphates
   (i) Potassium sulphate
   (ii) Potassium hydrogen sulphate
E516 Calcium sulphate
E524 Sodium hydroxide
E525 Potassium hydroxide
E526 Calcium hydroxide
E527 Ammonium hydroxide
E528 Magnesium hydroxide
E529 Calcium oxide
E530 Magnesium oxide
E570 Fatty acids
E574 Gluconic acid
E575 Glucono-delta-lactone
E576 Sodium gluconate
E577 Potassium gluconate
E578 Calcium gluconate
E640 Glycine and its sodium salt
E938 Argon*
E939 Helium*
E941 Nitrogen*
E942 Nitrous oxide*
E948 Oxygen*
E1200 Polydextrose
E1404 Oxidised starch
E1410 Monostarch phosphate
E1412 Distarch phosphate
E1413 Phosphated distarch phosphate
E1414 Acetylated distarch phosphate
E1420 Acetylated starch
E1422 Acetylated distarch adipate
E1440 Hydroxy propyl starch
E1442 Hydroxy propyl distarch phosphate
E1450  Starch sodium octenyl succinate
E420  Sorbitol
  (i) Sorbitol
  (ii) Sorbitol syrup
E421  Mannitol
E953  Isomalt
  (i) Maltitol
  (ii) Maltitol syrup
E966  Lactitol
E967  Xylitol

(4) In processed fishery products:
(a) the undermentioned food additives:
   E620  Glutamic acid
   E621  Monosodium glutamate
   E622  Monopotassium glutamate
   E623  Calcium diglutamate
   E624  Monoammonium glutamate
   E625  Magnesium diglutamate
may be used alone or in combination up to a maximum level of 10 g/kg
(b) the undermentioned food additives
   E626  Guanylic acid
   E627  Disodium guanylate
   E628  Dipotassium guanylate
   E629  Calcium guanylate
   E630  Inosinic acid
   E631  Disodium inosinate
   E632  Dipotassium inosinate
   E633  Calcium mesinate
   E634  Calcium 5’-ribonucleotides
   E635  Disodium 5’-ribonucleotides
may be used alone or in combination. They are expressed as guanylic acid.
The maximum level that may be used is 500 mg/kg

(5) In raw or prepared fishery products, the food additives:
E290  Carbon dioxide
E938  Argon
E939  Helium
E941  Nitrogen
E948  Oxygen
E331  Sodium citrates
E332  Potassium citrates
E333  Calcium citrates
E420  Sorbitol
  (i)  Sorbitol
  (ii) Sorbitol syrup
E421  Mannitol
E953  Isomalt
E965  Maltitol
  (i)  Maltitol
  (ii) Maltitol syrup
may be used at quantum satis.

(6) In frozen, raw, prepared or processed fish, crustaceans, molluscs and cephalopods, the undermentioned food additives may be used at quantum satis:

- E420 Sorbitol
  - (i) Sorbitol
  - (ii) Sorbitol syrup
- E421 Mannitol
- E953 Isomalt
  - (i) Maltitol
  - (ii) Maltitol syrup
- E966 Lactitol
- E967 Xylitol

Art. 7 Preservatives

(1) Preservatives that are mentioned below may be used to prolong the shelf life of fishery products.

(2) The following sorbates

- E200 Sorbic acid
- E202 Potassium sorbate
- E203 Calcium sorbate

The following benzoates:

- E210 Benzoic acid
- E211 Sodium benzoate
- E212 Potassium benzoate
- E213 Calcium benzoate

may be used alone or in combination with:

(a) Semi-preserved fish products including fish roe products up to a maximum level of 2000 mg/kg or mg/l;
(b) Salt-dried fish up to a maximum level of 200 mg/kg;
(c) Cooked shrimps up to a maximum level of 2000 mg/kg; and
(d) Cooked Crangon crangon and Crangon vulgaris up to a maximum level of 6000 mg/kg.

whereby the levels of all substances mentioned above are expressed as a free acid.

(3) The following preservative food additives that are described as sulphur dioxide and sulphites

- E220 Sulphur dioxide
- E221 Sodium sulphite
- E222 Sodium hydrogen sulphite
- E223 Sodium metabisulphite
- E224 Potassium metabisulphite
E226 Calcium sulphite
E277 Calcium hydrogen sulphite
E228 Potassium hydrogen sulphite
may be used alone or in combination with:

(a) fresh and frozen crustaceans and cephalopods up to a maximum level of 150 mg/kg in the edible parts;
(b) crustaceans, family of penaeidae, solenoceridae, aristeidae
   (i) up to 80 units/kg, and a maximum level of 150 mg/kg in the edible parts;
   (ii) between 80 and 120 units/kg, and a maximum level of 200 mg/kg in the edible parts;
   (iii) over 120 units/kg, and a maximum level of 300 mg/kg in the edible parts; and
   (iv) cooked, and a maximum level of 50 mg/kg in the edible parts.
(c) whereby
   (i) maximum levels are expressed as SO₂ in mg/kg and relate to the total quantity, available from all sources; and
   (ii) a SO₂ content of not more than 10 mg/kg is not considered to be present.

(4) The food preservative food additives, E251 Sodium nitrate and E252 Potassium nitrate may be used at 200 mg/kg in pickled herring and sprat whereby residual amount, nitrite formed from nitrate included, is expressed as NaNO₂.

(5) The food preservative food additive E284 Boric acid and E285 Sodium tetraborate (borax) may be used at 4 g/kg, expressed as boric acid in Sturgeon eggs (caviar).

Art. 8 Antioxidants
(1) The antioxidants E315 Erythorbic acid and E316 Sodium erythorbate may be used at 1500 mg/kg, expressed as erythorbic acid, in
   (a) preserved and semi-preserved fish products; and
   (b) frozen fish with red skin.
(2) The antioxidant E385 Calcium disodium ethylene diamine tetra-acetate (Calcium disodium EDTA) may be used up to a maximum level of 75 mg/kg in:
   (a) canned and bottled crustaceans and molluscs; and
   (b) canned and bottled fish.

Art. 9 Polyphosphates as cryoprotectants
The following polyphosphates (E452)
   (a) Sodium polyphosphate;
   (b) Potassium polyphosphate;
   (c) Sodium calcium polyphosphate; and
   (d) Calcium polyphosphates.

May be used in
   (a) Surimi up to a maximum level of 1g/kg;
(b) Fish and crustacean paste up to a maximum level of 5g/kg;  
(c) Frozen fillets of unprocessed fishery products up to a maximum level of 5g/kg; and  
(d) Frozen crustacean products up to a maximum level of 5g/kg.

**Art. 10 Effective Date**

These Regulations shall come into force on the date of their publication in the Gazette of Eritrean Laws.

Done at Asmara, this 30th day of April, 2003  
Ahmed Haj Ali,  
Minister of Fisheries.