



JOINT FAO/WHO FOOD STANDARDS PROGRAMME

CODEX COMMITTEE ON FOOD ADDITIVES

Forty-Sixth Session

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ENDORSEMENT AND/OR REVISION OF MAXIMUM LEVELS FOR FOOD ADDITIVES AND  
PROCESSING AIDS IN CODEX STANDARDS

BACKGROUND

1. In accordance with the section concerning Relations between Commodity Committees and General Committees of the Codex Alimentarius Commission Procedural Manual, "*All provisions in respect of food additives (including processing aids) contained in Codex commodity standards should be referred to the Committee on Food Additives, preferably before the Standards have been advanced to Step 5 of the Procedure for the Elaboration of Codex Standards or before they are considered by the commodity committee concerned at Step 7, though such referral should not be allowed to delay the progress of the Standard to the subsequent Steps of the Procedure.*".

2. The following food additive and processing aids provisions of Codex standards have been submitted for endorsement since the 46<sup>th</sup> Session of the Codex Committee on Food Additives and are listed by:

- (i) Technological function, INS number and food additive name;
- (ii) Proposed level;
- (iii) ADI (mg additive/kg body weight per day); and
- (iv) Notes.

3. The following abbreviations have been used in the preparation of this paper:

**INS International Numbering System for food additives.** The INS has been prepared by the Codex Committee on Food Additives for the purpose of providing an agreed international numerical system for identifying food additives in ingredient lists as an alternative to the declaration of the specific name<sup>1</sup>.

**ADI Acceptable Daily Intake.** An estimate of the amount of a substance in food or drinking-water, expressed on a body-weight basis, that can be ingested daily over a lifetime without appreciable risk (**standard** human = 60 kg)<sup>2</sup>. The ADI is listed in units of mg per kg of body weight.

**ADI "Not Specified"**. A term applicable to a food substance of very low toxicity which, on the basis of the available data (chemical, biochemical, toxicological, and other), the total dietary intake of the substance arising from its use at the levels necessary to achieve the desired effect and from its acceptable background in food does not, in the opinion of JECFA, represent a hazard to health. For that reason, and for reasons stated in individual evaluations, the establishment of an acceptable daily intake expressed in numerical form is not deemed necessary. An additive meeting this criterion must be used within the bounds of good manufacturing practice, i.e., it should be technologically efficacious and should be used at the lowest level necessary to achieve this effect, it should not conceal inferior food quality or adulteration, and it should not create a nutritional imbalance<sup>2</sup>.

**ADI "Not Limited"**. A term no longer used by JECFA that has the same meaning as ADI "not specified"<sup>2</sup>.

<sup>1</sup> *Class Names and the International Numbering System for Food Additives* (CAC/GL 36-2001)

<sup>2</sup> JECFA Glossary of Terms: <http://www.who.int/ipcs/food/jecfa/en/index.html>.

**Temporary ADI.** Used by JECFA when data are sufficient to conclude that use of the substance is safe over the relatively short period of time required to generate and evaluate further safety data, but are insufficient to conclude that use of the substance is safe over a lifetime. A higher-than-normal safety factor is used when establishing a temporary ADI and an expiration date is established by which time appropriate data to resolve the safety issue should be submitted to JECFA. The temporary ADI is listed in units of mg per kg of body weight<sup>2</sup>.

**Conditional ADI.** A term no longer used by JECFA to signify a range above the "unconditional ADI" which may signify an acceptable intake when special problems, different patterns of dietary intake, and special groups of the population that may require consideration are taken into account<sup>2</sup>.

**No ADI allocated.** There are various reasons for not allocating an ADI, ranging from a lack of information to data on adverse effects that call for advice that a food additive or veterinary drug should not be used at all. The report should be consulted to learn the reasons that an ADI was not allocated<sup>2</sup>.

**Acceptable<sup>2</sup>.**

Flavouring agents: Used to describe flavouring agents that are of no safety concern at current levels of intake and subsequent reports of meetings on food additives). If an ADI has been allocated to the agent, it is maintained unless otherwise indicated.

Enzyme preparations: Used to describe enzymes that are obtained from edible tissues of animals or plants commonly used as foods or are derived from microorganisms that are traditionally accepted as constituents of foods or are normally used in the preparation of foods. Such enzyme preparations are considered to be acceptable provided that satisfactory chemical and microbiological specifications can be established.

Food additives: Used on some occasions when present uses are not of toxicological concern or when intake is self-limiting for technological or organoleptic reasons.

**Acceptable Level of Treatment.** ADIs are expressed in terms of mg per kg of body weight per day. In certain cases, however, food additives are more appropriately limited by their levels of treatment. This situation occurs most frequently with flour treatment agents. It should be noted that the acceptable level of treatment is expressed as mg/kg of the commodity. This should not be confused with an ADI<sup>2</sup>.

**Good Manufacturing Practice (GMP) in the Use of Food Additives**<sup>3</sup> means that:

- the quantity of the additive added to food does not exceed the amount reasonably required to accomplish its intended physical nutritional or other technical effect in food;
- the quantity of the additive that becomes a component of food as a result of its use in the manufacturing, processing or packaging of a food and which is not intended to accomplish any physical, or other technological effect in the food itself, is reduced to the extent reasonably possible;
- the additive is of appropriate food grade quality and is prepared and handled in the same way as a food ingredient. Food grade quality is achieved by compliance with the specifications as a whole and not merely with individual criteria in terms of safety.

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<sup>3</sup> Procedural Manual of the Codex Alimentarius Commission (Definitions)

**ENDORSEMENT AND/OR REVISION OF MAXIMUM LEVELS FOR FOOD ADDITIVES  
IN CODEX COMMODITY STANDARDS**

**33<sup>rd</sup> Session of the Committee on Fish and Fishery Products (CCFFP)**

**(A) Draft Standard for Fresh and Quick Frozen Raw Scallop Products<sup>4</sup>**

1. In response to the comments made by the 45<sup>th</sup> CCFA in the endorsement process of the food additive provisions in the draft Standard for Fresh and Quick Frozen Raw Scallop Products (section on Quick Frozen Scallop Meat and Roe-on Scallops Processed With Phosphates), the 33<sup>rd</sup> CCFFP agreed to present the food additives in a tabular format in line with the proposal of CCFA and agreed to inform CCFA that phosphates were widely used and technologically justified for quick frozen products.
2. The Committee **is invited to consider for endorsement** the food additive provisions in the draft Standard for Fresh and Quick Frozen Raw Scallop Products, as presented in Annex 1.

**(B) Provisions for food additives in other standards for fish and fishery products<sup>5</sup>**

3. The Committee **is invited to consider for endorsement** the revised food additive provisions, as presented in Annex 2, of the following standards:
  - *Standard for Quick Frozen Shrimps or Prawns* (CODEX STAN 92-1981)
  - *Standard for Quick Frozen Lobsters* (CODEX STAN 95-1981)
  - *Standard for Quick Frozen Blocks of Fish Fillets, Minced Fish Flesh and Mixtures of Fillets and Minced Fish Flesh* (CODEX STAN 165-1989)
  - *Standard for Quick Frozen Fish Sticks (Fish Fingers), Fish Portions and Fish Fillets - Breaded or in Batter* (CODEX STAN 166-1989)
  - *General Standard for Quick Frozen Fish Fillets* (CODEX STAN 190-1995)

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<sup>4</sup> REP14/FFP para. 47 and Appendix III.

<sup>5</sup> REP14/FFP paras 97-100, 106 and Appendix VI.

**DRAFT STANDARD FOR FRESH AND QUICK FROZEN RAW SCALLOP PRODUCTS**

**4. FOOD ADDITIVES**

**4.1 Scallop Meat and Roe-on Scallop Meat**

No food additives are permitted in the products defined in section 2.1.1 **2.1.1 Scallop Meat** and 2.1.2. **2.1.2 Roe-on Scallop Meat**

**4.2 Quick Frozen Scallop Meat and Quick Frozen Roe-on Scallop Meat Processed With Phosphates**

<b>Humectant / Sequestrant</b>				
INS Number	Additive Name	Maximum Level in Product	ADI (mg/kg bw)	Note
338; 339(i)-(iii); 340(i)-(iii); 341(i)-(iii); 342(i),(ii); 343(i)-(iii); 450(i)-(iii),(v)-(vii); 451(i),(ii); 452(i)-(v); 542	Phosphates	2200 mg/kg as phosphorus	A group MTDI 70 mg/kg bw as phosphorus from all food sources, (26 <sup>th</sup> JECFA, 1982)	In GSFA food category 09.2.1 "Frozen fish, fish fillet and fish products, including molluscs, crustacean and echinoderms" : phosphates: ML 2 200 mg/kg (as phosphorus)

**Annex 2****FOOD ADDITIVE PROVISIONS IN STANDARDS FOR FISH AND FISHERY PRODUCTS**

Note: New provisions for endorsement are presented in **underlined/bold font** and deletion in ~~strike through font~~

**STANDARD FOR QUICK FROZEN SHRIMPS OR PRAWNS****CODEX STAN 92-1981****4. FOOD ADDITIVES**

**Only the use of the following additives is permitted.**

New provisions for endorsement are presented in **underlined/bold font** and deletion in ~~strike through font~~

<b>Acidity Regulators</b>				
INS Number	Additive Name	Maximum Level in Product	ADI (mg/kg bw)	Note
330	Citric acid	GMP	Group ADI "Not Limited for citric acid and its calcium, potassium, sodium and ammonium salts (17 <sup>th</sup> JECFA, 1973)	GSFA Table 3
<b><u>Humectants – Moisture/Water Retention Agents</u></b>				
INS Number	Additive Name	Maximum Level in Product	ADI (mg/kg bw)	Note
<b><u>339(i)</u></b>	<b><u>Sodium dihydrogen phosphate</u></b>	<b><u>2200 mg/kg as phosphorus, singly or in combination</u></b>	A group MTDI 70 mg/kg bw as phosphorus from all food sources, (26 <sup>th</sup> JECFA, 1982)	In GSFA food category 09.2.1 "Frozen fish, fish fillet and fish products, including molluscs, crustacean and echinoderms" : phosphates: ML 2 200 mg/kg (as phosphorus)
<b><u>339(ii)</u></b>	<b><u>Disodium hydrogen phosphate</u></b>			
<b><u>339(iii)</u></b>	<b><u>Trisodium phosphate</u></b>			
<b><u>340(i)</u></b>	<b><u>Potassium dihydrogen phosphate</u></b>			
<b><u>340(ii)</u></b>	<b><u>Dipotassium hydrogen phosphate</u></b>			
<b><u>340(iii)</u></b>	<b><u>Tripotassium phosphate</u></b>			
<b><u>341(i)</u></b>	<b><u>Calcium dihydrogen phosphate</u></b>			
<b><u>341(ii)</u></b>	<b><u>Calcium hydrogen phosphate</u></b>			
<b><u>341(iii)</u></b>	<b><u>Tricalcium phosphate</u></b>			
<b><u>450(i)</u></b>	<b><u>Disodium diphosphate</u></b>			
<b><u>450(ii)</u></b>	<b><u>Trisodium diphosphate</u></b>			
450(iii)	Tetrasodium diphosphate			
450(v)	Tetrapotassium diphosphate			
<b><u>450(vii)</u></b>	<b><u>Calcium dihydrogen diphosphate</u></b>			
451(i)	Pentasodium triphosphate			
451(ii)	Pentapotassium triphosphate			
<b><u>452(i)</u></b>	<b><u>Sodium polyphosphate</u></b>			
<b><u>452(ii)</u></b>	<b><u>Potassium polyphosphate</u></b>			
<b><u>452(iii)</u></b>	<b><u>Sodium calcium polyphosphate</u></b>			

<b>452(iv)</b>	<b>Calcium polyphosphate</b>			
<b>452(v)</b>	<b>Ammonium polyphosphate</b>			
<b>542</b>	<b>Bone phosphate</b>			
<b>Antioxidants</b>				
INS Number	Additive Name	Maximum Level in Product	ADI (mg/kg bw)	Note
300	Ascorbic acid (L-)	GMP		
<b>Colours</b>				
INS Number	Additive Name	Maximum Level in Product	ADI (mg/kg bw)	Note
124	Ponceau 4R	30 mg/kg in heat-treated products only		
<b>Preservatives</b>				
INS Number	Additive Name	Maximum Level in Product	ADI (mg/kg bw)	Note
221	Sodium sulphite	100 mg/kg in the edible part of the raw product, or 30 mg/kg in the edible part of the cooked product, singly or in combination, expressed as SO <sub>2</sub>		
223	Sodium metabisulphite			
224	Potassium metabisulphite			
225	Potassium sulphite			

**STANDARD FOR QUICK FROZEN LOBSTERS**

**CODEX STAN 95-1981**

**4. FOOD ADDITIVES**

Only the use of the following additives is permitted.

<b>Humectants – Moisture/Water Retention Agents</b>				
INS Number	Additive Name	Maximum Level in Product	ADI (mg/kg bw)	Note
<b>339(i)</b>	<b>Sodium dihydrogen phosphate</b>	<b>2200 mg/kg as phosphorus, singly or in combination</b>	A group MTDI 70 mg/kg bw as phosphorus from all food sources, (26 <sup>th</sup> JECFA, 1982)	In GSFA food category 09.2.1 “Frozen fish, fish fillet and fish products, including molluscs, crustacean and echinoderms” : phosphates: ML 2 200 mg/kg (as phosphorus)
<b>339(ii)</b>	<b>Disodium hydrogen phosphate</b>			
<b>339(iii)</b>	<b>Trisodium phosphate</b>			
<b>340(i)</b>	<b>Potassium dihydrogen phosphate</b>			
<b>340(ii)</b>	<b>Dipotassium hydrogen phosphate</b>			
<b>340(iii)</b>	<b>Tripotassium phosphate</b>			
<b>341(i)</b>	<b>Calcium dihydrogen phosphate</b>			
<b>341(ii)</b>	<b>Calcium hydrogen phosphate</b>			
<b>341(iii)</b>	<b>Tricalcium phosphate</b>			
<b>450(i)</b>	<b>Disodium diphosphate</b>			
<b>450(ii)</b>	<b>Trisodium diphosphate</b>			
<b>450(iii)</b>	<b>Tetrasodium diphosphate</b>			

<b>450(v)</b>	<b>Tetrapotassium diphosphate</b>			
<b>450(vii)</b>	<b>Calcium dihydrogen diphosphate</b>			
451(i)	Pentasodium triphosphate			
451(ii)	Pentapotassium triphosphate			
452(i)	Sodium polyphosphate			
<b>452(ii)</b>	<b>Potassium polyphosphate</b>			
<b>452(iii)</b>	<b>Sodium calcium polyphosphate</b>			
452(iv)	Calcium polyphosphate			
<b>452(v)</b>	<b>Ammonium polyphosphate</b>			
<b>542</b>	<b>Bone phosphate</b>			
<b>Preservatives</b>				
INS Number	Additive Name	Maximum Level in Product	ADI (mg/kg bw)	Note
221	Sodium sulphite	100 mg/kg in the edible part of the raw product, or 30 mg/kg in the edible part of the cooked product, singly or in combination, expressed as SO <sub>2</sub>	A group ADI 0-0.7 mg/kg bw as SO <sub>2</sub> for sulphites (51 <sup>st</sup> JECFA, 1998)	
223	Sodium metabisulphite			
224	Potassium metabisulphite			
225	Potassium sulphite			
228	Potassium bisulphite (for use in the raw product only)			
<b>Antioxidants</b>				
INS Number	Additive Name	Maximum Level in Product	ADI (mg/kg bw)	Note
300	Ascorbic acid	GMP		
301	Sodium ascorbate			
303	Potassium ascorbate			

**STANDARD FOR QUICK FROZEN BLOCKS OF FISH FILLET, MINCED FISH FLESH AND MIXTURES OF FILLETS AND MINCED FISH FLESH**

**CODEX STAN 165-1989**

**4. FOOD ADDITIVES**

Only the use of the following additives is permitted.

<b>Humectants – Moisture/Water Retention Agents</b>				
INS Number	Additive Name	Maximum Level in Product	ADI (mg/kg bw)	Note
339(i)	Sodium dihydrogen phosphate	<b>2200 mg/kg as phosphorus, singly or in combination</b>	A group MTDI 70 mg/kg bw as phosphorus from all food sources, (26 <sup>th</sup> JECFA, 1982)	In GSFA food category 09.2.1 “Frozen fish, fish fillet and fish products, including molluscs, crustacean and echinoderms” : phosphates: ML 2 200 mg/kg (as phosphorus)
<b>339(ii)</b>	<b>Disodium hydrogen phosphate</b>			
<b>339(iii)</b>	<b>Trisodium phosphate</b>			
340(i)	Potassium dihydrogen phosphate			
<b>340(ii)</b>	<b>Dipotassium hydrogen phosphate</b>			
<b>340(iii)</b>	<b>Tripotassium phosphate</b>			
<b>341(i)</b>	<b>Calcium dihydrogen phosphate</b>			
<b>341(ii)</b>	<b>Calcium hydrogen phosphate</b>			

<b>341(iii)</b>	<b>Tricalcium phosphate</b>			
<b>450(i)</b>	<b>Disodium diphosphate</b>			
<b>450(ii)</b>	<b>Trisodium diphosphate</b>			
450(iii)	Tetrasodium diphosphate			
450(v)	Tetrapotassium diphosphate			
<b>450(vii)</b>	<b>Calcium dihydrogen diphosphate</b>			
451(i)	Pentasodium triphosphate			
451(ii)	Pentapotassium triphosphate			
452(i)	Sodium polyphosphate			
<b>452(ii)</b>	<b>Potassium polyphosphate</b>			
<b>452(iii)</b>	<b>Sodium calcium polyphosphate</b>			
452(iv)	Calcium polyphosphate			
<b>452(v)</b>	<b>Ammonium polyphosphate</b>			
<b>542</b>	<b>Bone phosphate</b>			
401	Sodium alginate	GMP		
<b>Antioxidants</b>				
INS Number	Additive Name	Maximum Level in Product	ADI (mg/kg bw)	Note
300	Ascorbic acid	GMP		
301	Sodium ascorbate			
303	Potassium ascorbate			
304	Ascorbyl palmitate	1 g/kg		
<b>In Minced Fish Flesh Only</b>				
<b>Acidity Regulators</b>				
INS Number	Additive Name	Maximum Level in Product	ADI (mg/kg bw)	Note
330	Citric acid	GMP		
331	Sodium citrate			
332	Potassium citrate			
<b>Thickeners</b>				
412	Guar gum	GMP		
410	Carob bean (Locust bean) gum			
440	Pectins			
466	Sodium carboxymethyl cellulose			
415	Xanthan gum			
407	Carrageenan and its Na, K, NH <sub>4</sub> salts (including Furcelleran)			
407a	Processed Eucheuma Seaweed (PES)			
461	Methyl cellulose			



## STANDARD FOR QUICK FROZEN FISH STICKS (FISH FINGERS), FISH PORTIONS AND FISH FILLETS - BREADED OR IN BATTER

## CODEX STAN 166 – 1989

## 4. FOOD ADDITIVES

Only the use of the following additives is permitted.

<b>Humectants – Moisture/Water Retention Agents</b>				
INS Number	Additive Name	Maximum Level in Product	ADI (mg/kg bw)	Note
339(i)	Sodium dihydrogen phosphate	<b>2200 mg/kg as phosphorus, singly or in combination</b>	A group MTDI 70 mg/kg bw as phosphorus from all food sources, (26 <sup>th</sup> JECFA, 1982)	In GSFA food category 09.2.2 "Frozen battered fish, fish fillet and fish products, including molluscs, crustacean and echinoderms" : phosphates: ML 2 200 mg/kg (as phosphorus)
<b>339(ii)</b>	<b><u>Disodium hydrogen phosphate</u></b>			
<b>339(iii)</b>	<b><u>Trisodium phosphate</u></b>			
340(i)	Potassium dihydrogen phosphate			
<b>340(ii)</b>	<b><u>Dipotassium hydrogen phosphate</u></b>			
<b>340(iii)</b>	<b><u>Tripotassium phosphate</u></b>			
<b>341(i)</b>	<b><u>Calcium dihydrogen phosphate</u></b>			
<b>341(ii)</b>	<b><u>Calcium hydrogen phosphate</u></b>			
<b>341(iii)</b>	<b><u>Tricalcium phosphate</u></b>			
<b>450(i)</b>	<b><u>Disodium diphosphate</u></b>			
<b>450(ii)</b>	<b><u>Trisodium diphosphate</u></b>			
450(iii)	Tetrasodium diphosphate			
450(v)	Tetrapotassium diphosphate			
<b>450(vii)</b>	<b><u>Calcium dihydrogen diphosphate</u></b>			
451(i)	Pentasodium triphosphate			
451(ii)	Pentapotassium triphosphate			
452(i)	Sodium polyphosphate			
<b>452(ii)</b>	<b><u>Potassium polyphosphate</u></b>			
<b>452(iii)</b>	<b><u>Sodium calcium polyphosphate</u></b>			
452(iv)	Calcium polyphosphate			
<b>452(v)</b>	<b><u>Ammonium polyphosphate</u></b>			
<b>542</b>	<b><u>Bone phosphate</u></b>			
401	Sodium alginate	GMP		
<b>Antioxidants</b>				
INS Number	Additive Name	Maximum Level in Product	ADI (mg/kg bw)	Note
300	Ascorbic acid	GMP		
301	Sodium ascorbate			
303	Potassium acerbate			
304	Ascorbyl palmitate	1 g/kg		

<b>In Addition, for Minced Fish Flesh Only</b>				
<b>Acidity Regulators</b>				
INS Number	Additive Name	Maximum Level in Product	ADI (mg/kg bw)	Note
330	Citric acid	GMP		
331	Sodium citrate			
332	Potassium citrate			
<b>Thickeners</b>				
INS Number	Additive Name	Maximum Level in Product	ADI (mg/kg bw)	Note
412	Guar gum	GMP		
410	Carob bean (Locust bean) gum			
440	Pectins			
466	Sodium carboxymethyl cellulose			
415	Xanthan gum			
407	Carrageenan and its Na, K, NH <sub>4</sub> salts (including Furcelleran)			
407a	Processed Eucheuma Seaweed (PES)			
461	Methyl cellulose			
<b>Food Additives for Breaded or Batter Coatings</b>				
<b>Raising Agents</b>				
INS Number	Additive Name	Maximum Level in Product	ADI (mg/kg bw)	Note
<b>339(i)</b>	<b><u>Sodium dihydrogen phosphate</u></b>	<b><u>440 mg/kg as phosphorus, singly or in combination</u></b>	A group MTDI 70 mg/kg bw as phosphorus from all food sources, (26 <sup>th</sup> JECFA, 1982)	
<b>340(iii)</b>	<b><u>Tripotassium phosphate</u></b>			
341(i)	Calcium dihydrogen phosphate			
341(ii)	Calcium hydrogen phosphate			
<b>341(iii)</b>	<b><u>Tricalcium phosphate</u></b>			
<b>450(i)</b>	<b><u>Disodium diphosphate</u></b>			
<b>450(ii)</b>	<b><u>Trisodium diphosphate</u></b>			
<b>450(iii)</b>	<b><u>Tetrasodium diphosphate</u></b>			
<b>450(v)</b>	<b><u>Tetrapotassium diphosphate</u></b>			
<b>450(vi)</b>	<b><u>Dicalcium diphosphate</u></b>			
<b>450(vii)</b>	<b><u>Calcium dihydrogen diphosphate</u></b>			
<b>452(i)</b>	<b><u>Sodium polyphosphate</u></b>			
<b>452(ii)</b>	<b><u>Potassium polyphosphate</u></b>			
<b>452(iii)</b>	<b><u>Sodium calcium polyphosphate</u></b>			
<b>452(iv)</b>	<b><u>Calcium polyphosphate</u></b>			
541	Sodium aluminium phosphate, basic and acidic			
500	Sodium carbonates	GMP		
501	Potassium carbonates			
503	Ammonium carbonates			
<b>Flavour Enhancers</b>				

INS Number	Additive Name	Maximum Level in Product	ADI (mg/kg bw)	Note	
621	Monosodium glutamate	GMP			
622	Monopotassium glutamate				
<b>Colours</b>					
INS Number	Additive Name	Maximum Level in Product	ADI (mg/kg bw)	Note	
160b(i)	Annatto extracts bixin-based				
160b(ii)	Annatto extract (norbixin-based)				
150a	Caramel I (plain)				
160a(i)	$\beta$ -carotene (Synthetic)				
160e	$\beta$ -apo-carotenal				
<b>Thickeners</b>					
INS Number	Additive Name	Maximum Level in Product	ADI (mg/kg bw)	Note	
412	Guar gum	GMP			
410	Carob bean (Locust bean) gum				
440	Pectins				
466	Sodium carboxymethyl cellulose				
415	Xanthan gum				
407	Carrageenan and its Na, K, NH <sub>4</sub> salts (including Furcelleran)				
407a	Processed EucheumaSeaweed (PES)				
461	Methyl cellulose				
<b>400</b>	<b><u>Alginic acid</u></b>			An ADI "not specified" (39 <sup>th</sup> JECFA, 1992)	GSFA Table 3
401	Sodium alginate				
<b>402</b>	<b><u>Potassium alginate</u></b>			An ADI "not specified" (39 <sup>th</sup> JECFA, 1992)	GSFA Table 3
<b>403</b>	<b><u>Ammonium alginate</u></b>			An ADI "not specified" (39 <sup>th</sup> JECFA, 1992)	GSFA Table 3
<b>404</b>	<b><u>Calcium alginate</u></b>			An ADI "not specified" (39 <sup>th</sup> JECFA, 1992)	GSFA Table 3
463	Hydroxypropyl cellulose				
464	Hydroxypropyl methylcellulose				
465	Methylethylcellulose				

<b>Emulsifiers</b>				
INS Number	Additive Name	Maximum Level in Product	ADI (mg/kg bw)	
471	Monoglycerides of fatty acids	GMP		
322	Lecithins			
<b>Modified Starches</b>				
1401	Acid treated starches	GMP		
1402	Alkaline treated starches			
1404	Oxidized starches			
1410	Monostarch phosphate			
1412	Distarch phosphate esterified with sodium trimetaphosphate; esterified with phosphorus oxychloride			
1414	Acetylated distarch phosphate			
1413	Phosphated distarch phosphate			
1420	Starch acetate esterified with acetic anhydride			
1421	Starch acetate esterified with vinyl acetate			
1422	Acetylated distarch adipate			
1440	Hydroxypropyl starch			
1442	Hydroxypropyl starch phosphate			

**GENERAL STANDARD FOR QUICK FROZEN FISH FILLETS  
(CODEX STAN 190-1995)**

**4. FOOD ADDITIVES**

Only the use of the following additives is permitted.

<b>Humectants – Moisture/Water Retention Agents</b>				
INS Number	Additive Name	Maximum Level in Product	ADI (mg/kg bw)	Note
339(i)	Sodium dihydrogen phosphate	<b><u>2200 mg/kg as phosphorus, singly or in combination</u></b>	A group MTDI 70 mg/kg bw as phosphorus from all food sources, (26 <sup>th</sup> JECFA, 1982)	In GSFA food category 09.2.1 “Frozen fish, fish fillet and fish products, including molluscs, crustacean and echinoderms” : phosphates: ML 2 200 mg/kg (as phosphorus)
<b>339(ii)</b>	<b><u>Disodium hydrogen phosphate</u></b>			
<b>339(iii)</b>	<b><u>Trisodium phosphate</u></b>			
340(i)	Potassium dihydrogen phosphate			
<b>340(ii)</b>	<b><u>Dipotassium hydrogen phosphate</u></b>			
<b>340(iii)</b>	<b><u>Tripotassium phosphate</u></b>			
<b>341(i)</b>	<b><u>Calcium dihydrogen phosphate</u></b>			
<b>341(ii)</b>	<b><u>Calcium hydrogen phosphate</u></b>			
<b>341(iii)</b>	<b><u>Tricalcium phosphate</u></b>			
<b>450(i)</b>	<b><u>Disodium diphosphate</u></b>			
<b>450(ii)</b>	<b><u>Trisodium diphosphate</u></b>			
450(iii)	Tetrasodium diphosphate			
450(v)	Tetrapotassium diphosphate			

<b>450(vii)</b>	<b>Calcium dihydrogen diphosphate</b>			
451(i)	Pentasodium triphosphate			
451(ii)	Pentapotassium triphosphate			
452(i)	Sodium polyphosphate			
<b>452(ii)</b>	<b>Potassium polyphosphate</b>			
<b>452(iii)</b>	<b>Sodium calcium polyphosphate</b>			
452(iv)	Calcium polyphosphate			
<b>452(v)</b>	<b>Ammonium polyphosphate</b>			
<b>542</b>	<b>Bone phosphate</b>			
401	Sodium alginate	GMP		
<b>Antioxidants</b>				
INS Number	Additive Name	Maximum Level in Product	ADI (mg/kg bw)	Note
301	Sodium ascorbate	GMP		
303	Potassium ascorbate	GMP		