Appendix 1
To SanPiN 2.3.2.1078-01,
Approved by Decree
No: 36 dated
November 14, 2001,
of
The Russian Federation
Chief State
sanitary physician

Section:

1.3. Fish, non-fish trade objects and products made of them

Index, product group	Description	Permissible levels Mg/kg, max.	Comments
1	2	3	4
1.3.1. Live fish, fresh fish, cooled fish, frozen fish, minced fish, filet, meat of sea mammals	Toxic elements: Lead Arsenic Cadmium mercury	 1,0 2,0 1,0 5,0 0,2 0,3 0,6 0,5 1,0	 Tunny, sword-fish, white river sturgeon Sea fish River fish Non-predatory River fish Predatory Sea fish Tunny, sword-fish, white sturgeon
	Histamine	100,0	Tunny, Macherel,salmon herring
	Nitrosamines: NDMA+NDEA	0,003	
	Pesticides: <*> hexachlorcyclohexan (alpha-, beta-, gamma-isomers), DDT and its metabolites 2,4-D acid, its salts and ethers	 0,2 0,03 0,2 0,3 2,0 0,2 not allowed	 Sea fish, sea animals' meat River fish Sea fish River fish Surgeon, salmon,herring sea animals' meat river fish
	Polychloride biphenyls	2,0	
	Radio-nucleids:		

	caesium-137 and strontium-90	130 100	Bk/kg ditto

Microbiological factors

Index, product group	Amount of mesophylic aero- and facultative anaerobic micro-organisms, intestinal bacillus group (coliforms), Enterobacteriaceae, enterococcus (COE/g, max.)	Product weight (g) presence of the following germs is prohibited:			Comments
		intestinal pathogenic protozoa (coliforms)	S. aureus	pathogenic micro-organisms including Salmonella and Listeria monocytogenes	
1.3.1.1.Raw and fresh fish	5 x 1E4	0,01	0,01	25	V. parahaemo-lyticus, max.100 COE/g for sea fish
1.3.1.2. cooled fish, frozen fish,	5 x 1E5	0,001	0,01	25	ditto
1.3.1.3. cooled and frozen fish products: - filet - special product	5 x 1E5	0,001	0,01	25	Ditto Sulphite reducing Closdtridies 0,01 g, not allowed in vacuum packaged products
- minced fish, products formed of minced fish, including with bread components	5 x 1E5	0,001	0,01	25	ditto
- special minced fish	5 x 1E4	0,01	0,01	25 <*>	Sulphite reducing Closdtridies 0,01 g, not allowed in vacuum packaged products <*>salmonella only

Index, product group	Description	Permissible levels Mg/kg, max.	Comments
1	2	3	4
1.3.2. Tinned fish, preserved fish	Toxic elements: Lead Arsenic Cadmium Mercury tin	 See section 1.3.1 200	 For tinned products in pre-Fabricated tins
	Chrome Benzopyrene	0,5 0,001 <*>	For tinned products in

			chrome-plated tins <*> for smoked products
	Histamine Nitrosamines, Pesticides, Polychloride biphenyls and radionucleids	See section 1.3.1	

Microbiological factors						
Index, product group	Amount of mesophylic aero- and facultative anaerobic micro-organisms, intestinal bacillus group (coliforms), Enterobacteriaceae, enterococcus (COE/g, max.)	Product weight (g) presence of the following germs is prohibited:				Comments
		coliforms	S. aureus	Sulphite reducing Clostridies	pathogenic micro-organisms including Salmonella and Listeria monocytogenes	
1.3.2.1. preserved fish, spicy, salted, special salted of cut and uncut fish	5 x 1E5	0,01	–	0,01	25	Mould max. 10 COE/g, Yield max. 100 COE/g
1.3.2.2. preserved fish, spicy, slightly salted, special salted of: – cut fish – uncut fish	 5 x 1E5 5 x 1E4	 0,01 0,01	 1,0 1,0	 0,01 0,01	 25 25	Mould max. 10 COE/g, Yield max. 100 COE/g ditto ditto
1.3.2.3. preserved cut fish,with oil, dressing, with or without garnish (including salmon with oil)	2 x 1E5	0,01	1,0	0,01	25	ditto
1.3.2.4. preserved – fish pastes – protein pastes	5 x 1E5 1 x 1E5	0,01 0,1	0,1 0,1	0,01 0,1	25 25	ditto ditto

1.3.2.5. preserved processed fish	5 x 1E4	1,0	1,0	1,0	25	
1.3.2.6. tinned fish in glass, aluminium or steel tins	Shall meet requirements concerning industrial sterility for tinned products, class A, in accordance with provisions of Appendix 8 of these Sanitary rules					
1.3.2.7. semi-preserved fish products, pasteurized, in glass tins	Shall meet requirements concerning industrial sterility for tinned products, class D, in accordance with provisions of Appendix 8 of these Sanitary rules					

Index, product group	Description	Permissible levels Mg/kg, max.	Comments
1	2	3	4
1.3.3. Dried, stockfish, smoked and pickled fish, coockery and other ready products	Toxic elements, Histamines and Polychloride biphenyls	See section 1.3.1 200	in consideration of initial product and dry substances content in raw material and final product
	Nitrosamines	0,003	
-smoked, pickled, salted and other fish products - Dried, stockfish	Radio-nucleids: caesium-137 and strontium-90	 260 200	 Bk/kg ditto
	Pesticides: <*> hexachlorcyclohexan (alpha-, beta-, gamma-isomers) DDT and its metabolites Benzopyrene	0,2 0,4 2,0 0,001	 Cured fish filet, herring Smoked fish

Microbiological factors						
Index, product group	Amount of mesophylic aero- and facultative anaerobic micro-organisms, intestinal bacillus group (coliforms), Enterobacteriacea enterococcus (COE/g, max.)	Product weight (g) presence of the following germs is prohibited:				Comments
		coliforms	S. aureus	Sulphite reducing Clostridie	pathogenic micro-organisms	

				s	including Salmonella and Listeria monocytogenes	
1.3.3.1. hot smoked fish, including frozen	1 x 1E4	1,0	1,0	0,1 <*>	25	<*> in vacuum package
1.3.3.2. cold smoked fish: -frozen	1 x 1E4	0,1	1,0	0,1 <*>	25	<*> ditto V. parahaemo-lyticus, max.100 COE/g for sea fish
-sliced (non-sliced)	3 x 1E4	0,1	1,0	0,1 <*>	25	<*> ditto V. parahaemo-lyticus, max.100 COE/g for sea fish
-cured fish filet, cold smoked and sliced	7,5 x 1E4	0,1	1,0	0,1 <*>	25	<*> in vacuum package
- assorted fish, ham, minced fish filet, spicy products	1 x 1E5	0,01	0,1	0,1 <*>	25	<*> ditto
1.3.3.3. salted, smoked fish filet, frozen and vacuum packed	5 x 1E4	0,1	0,1	0,1	25	V. parahaemo-lyticus, max.100 COE/g for sea fish
1.3.3.4. salted, spicy, pickled fish: - uncut	1 x 1E5	0,1	-	0,1 <*>	25	<*> in vacuum package
- cut salted and slightly salted incl. Salmon without preservatives, sliced filet, with oil, dressing, with or without garnish	1 x 1E5	0,01	0,1	0,1<*>	25	<*> in vacuum package
1.3.3.5. stockfish	5 x 1E4	0,1	-	1,0 <*>	25 <**>	<*> in vacuum package <**> salmonella only

						mould max.50 COE/g, yield max.100 COE/g
1.3.3.6. short weight dried fish	5 x 1E4	0,1	-	1,0 <*>	25 <**>	<*> in vacuum package <**> salmonella only mould max.50 COE/g, yield max.100 COE/g
1.3.3.7. dried fish	5 x 1E4	0,1	-	1,0 <*>	25 <**>	<*> in vacuum package <**> salmonella only mould max.50 COE/g, yield max.100 COE/g
1.3.3.8. fish soups, dry product to be coocked	5 x 1E5	0,01	-	-	25 <**>	<**> salmonella only mould and yield max.100 COE/g
1.3.3.9. cookery products, processed: - fish and minced fish products, pastes, pate, baked, fried, cooked, with oil, dressing etc., with flour component (pasties, pelmeni etc., incl. Frozen products) - multi-component products, thick soup, pilau, snacks, stewed snacks, sea products with vegetables incl. Frozen;	1 x 1E4 5 x 1E4 5 x 1E4	1,0 0,01 0,1	1,0 1,0 1,0	1,0 <*> 1,0 <*> -	25 <**> 25 <**> 25 <*>	<*> in vacuum package <**> salmonella only mould and yield max.100 COE/g <*> in vacuum package <**> salmonella only <*> salmonell

- jelled products, galantine, jellied fish etc.						a only
1.3.3.10. cookery products, non-processed:						
- fish and sea product salads without dressing;	1 x 1E4	1,0	1,0	-	25	Proteus is not allowed in 0,1 g
- salted fish, cut; pate and pastes;	2 x 1E5	0,01	0,1	-	25	of the product ditto
- butter: with herring, caviar, shrimp products etc.	2 x 1E5	0,001	0,1	-	25	Ditto
1.3.3.11. coocked and frozen products: - ready frozen lunch and snack fish meals, pancakes with fish, fish stuffing incl. In vacuum package	2 x 1E4	0,1	0,1	0,1 <*>	25	enterococcus - 1 x 1E3 COE/g max. (in sliced and served products) <*> in vacuum package
- structurized products (”crab sticks” etc.)	1 x 1E3	1,0	1,0	1,0	25	enterococcus - 2 x 1E3 COE/g max. (in minced products)
1.3.3.12. mayonnaise on the basis of fish broth	-	0,01	-	-	25 <*>	<*> salmonella only mould max. 10 COE/g, yield max. 100 COE/g

Index, product group	Description	Permissible levels Mg/kg, max.	Comments
1	2	3	4
1.3.4. Fish caviar and soft roe and products from caviar and soft roe; caviar analogues	Toxic elements: Lead Arsenic Cadmium mercury	 1,0 1,0 1,0 0,2	
	Pesticides: <*> hexachlorcyclohexan (alpha-, beta-, gamma-isomers), DDT and its metabolites	0,2 2,0	
	Polychloride biphenyls, Radio-nucleids	See section 1.3.1	

Microbiological factors

Index, product group	Amount of mesophylic aero- and facultative anaerobic micro-organisms, intestinal bacillus group (coliforms), Enterobacteriaceae, enterococcus (COE/g, max.)	Product weight (g) presence of the following germs is prohibited:				Mould, COE/g, Max.	Yield, COE/g, Max.	Comments
		coliforms	S. aureus	Sulphite reducing Clostridies	pathogenic micro-organisms including Salmonella			
1	2	3	4	5	6	7	8	9
1.3.4.1 Fish soft roe and caviar (cooled and frozen)	5 x 1E4	0,001	0,01	-	25	-	-	L.Monocytogene not allowed in 25 g; V.parahaemolyticus Max.100 COE/g for sea fish
1.3.4.2. Soft roe, salted	1 x 1E5	0,1	0,1	-	25	-	-	L.Monocytogene not allowed in 25 g;
1.3.4.3.								

cookery caviar products: - processed; - multi-component products, unprocessed, mixed	1 x 1E4 2 x 1E5	1,0 0,1	1,0 0,1	- -	25 25	- -	- -	L.Monocytogene not allowed in 25 g; Proteus not allowed in 0,1 g
1.3.4.4. Sturgeon caviar: - soft packed, pressed; - soft caviar, pausterized; - salted, slightly salted	1 x 1E4 1 x 1E3 5 x 1E4	1,0 1,0 1,0	1,0 1,0 1,0	1,0 1,0 1,0	25 25 25	50 0,1 <*> 50	50 0,1 <*> 100	<*> weight (g) in which not allowed
1.3.4.5. Salmon caviar, soft salted: - tinned, from the wood; - fresh frozen	1 x 1E5 5 x 1E4	1,0 1,0	1,0 1,0	1,0 1,0	25 25	50 50	300 200	
1.3.4.4. Hard roe (caviar) of other fish species: - punched salted, slightly salted, smoked, dried; - pausterized	1 x 1E5 5 x 1E3	0,1 1,0	1,0 1,0	1,0 1,0	25 25	50 0,1 <*>	300 0,1 <*>	<*> weight (g) in which not allowed
1.3.4.7. caviar analogues, incl. protein	1 x 1E4	0,1	1,0	0,1	25	50	50	

Index, product group	Description	Permissible levels Mg/kg, max.	Comments
1	2	3	4
1.3.5. Fish liver and fish liver products	Toxic elements: Lead Cadmium mercury tin chrome	 1,0 0,7 0,5 200 0,5	 For tinned products (in prefabricated tin) For tinned products (in chrome-plated

			tin)
	Pesticides: <*> hexachlorcyclohexan (alpha-, beta-, gamma-isomers), DDT and its metabolites	1,0 3,0	
	Polychloride biphenyls	5,0	
	Radio-nucleids:	See section 1.3.1	
Microbiological factors			
1.3.5.1. tinned fish liver and fish liver products	Shall meet requirements concerning industrial sterility for tinned products, class A, in accordance with provisions of Appendix 8 of these Sanitary rules		
1.3.5.2. fish liver and fish heads, frozen	Microbiological factors: amount of mesophylic aero- and facultative anaerobic micro-organisms intestinal bacillus group (coliforms) S. aureus V. parahaemolyticus Pathogenic micro-organisms, incl. Salmonella and L. monocytogenes	1 x 1E5 0, 001 0,01 100 25	COE/g, max., product Weight (g) in which they are not allowed Ditto COE/g max. for sea fish ditto
Index, product group	Description	Permissible levels Mg/kg, max.	Comments
1.3.6. Cod-liver oil	See section „Oil raw Materials and Fat products“ Section 1.7.8.		
1.3.7. Molluscs, crustacea, invertabrates, seaweed and processed products, as well as Amphibian and reptiles - Molluscs, crustacea - seaweed	 Toxic elements: Lead Arsenic Cadmium mercury Lead Arsenic Cadmium mercury Radio-nucleids: caesium-137 and strontium-90	1,0 0,7 0,5 200 10,0 5,0 2,0 0,2 0,5 5,0 1,0 0,1 200 100	

Microbiological factors			
Index, product group	Amount of mesophylic aero- and facultative anaerobic micro-organisms, intestinal bacillus group (coliforms), Enterobacteriaceae,	Product weight (g) presence of the following germs is prohibited:	Comments

	enterococcus (COE/g, max.)	coliforms	S. aureus	Sulphite reducing Clostridies	pathogenic micro-organisms including Salmonella and Listeria monocytogenes	
1.3.7.1. Crustacea: -live	5 x 1E4	0,01	0,01	-	25	V. parahaemo-lyticus, max.100 COE/g for sea crustacae
- cooled, frozen	1 x 1E5	0,001	0,01	-	25	Ditto
Bivalve molluscs (oysters etc.), live	5 x 1E3	1,0	0,1	0,1	25	E.coli not allowed in 1,0 g; Enterococcus not allowed in 0,1 g; V. parahaemo-lyticus not allowed in 25 g for sea molluscs
- cooled, frozen	5 x 1E4	0,1	0,1	-	25	V. parahaemo-lyticus, max.100 COE/g for sea molluscs
- Cephalopoda	1 x 1E5	0,001	0,01	-	25	ditto
1.3.7.2. preserved products (molluscs etc.) with oil, dressing, with or without garnish	2 x 1E5	0,01	1,0	0,01	25 <*>	<*> salmonella only mould max.10 COE/g, yield max.100 COE/g
1.3.7.3. preserved products (bivalve molluscs) with oil, dressing, with or without garnish	5 x 1E4	0,1	0,1	-	25 <*>	<*> salmonella only mould max.10 COE/g, yield max.100 COE/g
1.3.7.4. preserved non-fish products (Molluscs, crustacea, invertebrates etc.)	Shall meet requirements concerning industrial sterility for tinned products, class A, in accordance with provisions of Appendix 8 of these Sanitary rules					
1.3.7.5. stock- and dried products (of sea invertebrates)	2 x 1E4	1,0	-	0,1	25 <*>	<*> salmonella only mould and yield max.100 COE/g

1.3.7.6. cooked and frozen products of non-fish origin						
- crustacea	2 x 1E4	0,1	0,1	1,0 <*>	25	<*> in vacuum package Enterococcus COE/g max: 1 x 1E3 - in Sliced products; 2 x 1E3 - in minced products
- molluscs, meals from bivalve molluscs	2 x 1E4	1,0	1,0	1,0 <*>	25	<*> in vacuum package Enterococcus COE/g max: 1 x 1E3 - in Sliced products; 2 x 1E3 - in minced products
- meals from shrimps, crabs etc.	2 x 1E4	0,1	1,0	1,0 <*>	25	ditto Enterococcus COE/g max: 1 x 1E3 - in Sliced products; 2 x 1E3 - in minced products
1.3.7.7. dried and protein products (of non-fish origin):						
- powder thick soup from oysters, bricks and pastes, isolated protein	5 x 1E4	0,1	-	0,001	25 <*>	<*> salmonella only
-hydrolized product from oysters	5 x 1E3	1,0	1,0	-	25 <*>	ditto
- protein and carbohydrate concentrate from oysters	-	1,0	1,0	1,0	25 <*>	ditto
1.3.7.8. seaweed and seaweed products:						
- raw seaweed (incl.frozen)	5 x 1E4	0,1	-	-	25 <*>	<*> ditto
- dried sea-kale	5 x 1E4	1,0	-	-	25 <*>	<*> salmonella only mould max. 100 COE/g
- sea-kale jams	5 x 1E3	1,0	-	-	25 <*>	<*> salmonella only
- agar-agar, agaroid, phurcelarin, sodium alginate	See section “Other products”, 1.9.6.2.					

<*> Residual quantity of pesticides used in connection with production of raw material shall be under control (see sections 3.12., 3.13.)

Index, product group	Description	Permissible levels Mg/kg, max.	Comments
1	2	3	4
1.7.8. Cod liver oil and mammals' fat (to be used as prophylactic and medical means)	Factors of oxidizing Spoilure: Acid ratio Peroxide ratio	 4,0 10,0	 Mg CON/g mmol active agents
	Toxic elements: Lead Arsenic Cadmium mercury	 1,0 1,0 0,2 0,3	
	Pesticides: <*> hexachlorcyclohexan (alpha-, beta-, gamma-isomers), DDT and its metabolites	 0,1 0,2	
	Polychloride biphenyls	3,0	
	Radio-nucleids: caesium-137 and strontium-90	 60 80	 Bk/kg ditto

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<*> Residual quantity of pesticides used in connection with production of raw material shall be under control

<**> In case of use of chemical methods in connection with detection of grizine, bacytracine, penicillin, streptomycin and other antibiotics of the same group actual quantity shall be changed into units/g in accordance with activity rate of the standard.

1.9.15.6. Jelled fish products,	1 x 1E3	1,0	-	1,0	0,1	25	
Jelled meat (beef, pork) and jelled poultry products	1 x 1E4	0,1	1,0	0,1	0,1	25	
Meat and liver pate	1 x 1E4	0,1	1,0	0,1	0,1	25	
Beef, poultry, rabbit, pork etc. , cooked	1 x 1E4	1,0	-	1,0	0,1	25	Without oil and dressing
Fish cooked, fried, dressed	1 x 1E4	1,0	-	1,0	0,1	25	
1.9.15.17. Ready cookery products, from fish and poultry (ready	1 x 1E3	1,0	-	1,0	0,1	25	Sulphide reducing clostridies are not allowed in

served, incl. in vacuum package)							0,1 g of the product in vacuum packages

1.10. Biologically active food additives

1.10.1 Biologically active food additives produced on the basis of fish, sea invertebrates, crustacean, molluscs and other see products, sea weed and plants.	Toxic elements: Lead Arsenic Cadmium mercury	 10,0 12,0 2,0 0,5	
Sea weed and other, dried	Pesticides: <*> hexachlorcyclohexan (alpha-, beta-, gamma-isomers), DDT and its metabolites Heptachlore Aldrin	 0,2 0,2 not allowed not allowed	 <0,002 <0,002
	Radio-nucleids: Caesium-137 Strontium-90	 200 100	 Bk/kg Ditto
	Microbiological factors: mesophylic aero- and facultative anaerobic micro-organisms; intestinal bacillus group (coliforms) E.coli S. aureus Pathogenic micro-organisms, incl. Salmonella Yield and mould	 1 x 1E4 0,1 1,0 1,0 10,0 200	 COE/g max. Weight (g) in which they are not allowed Ditto Ditto Ditto COE/g max. <*> for BAA fro sea plants

Index, product group	Description	Permissible levels Mg/kg, max.	Comments
1.10.11. Biologically active food additives on the basis of single-cell sea weed (spirulina, chlorella etc.), yield and yield lisates	Toxic elements: Lead Arsenic Cadmium mercury	 2,0 1,0 1,0 0,1	

	Nitrates	1000	
	Pesticides: <*> hexachlorcyclohexan (alpha-, beta-, gamma-isomers), DDT and its metabolites Heptachlore Aldrin	 0,1 0,1 not allowed not allowed	 <0,002 <0,002
	Radio-nucleids: Caesium-137 Strontium-90	 200 100	 Bk/kg Ditto
	Microbiological factors: mesophylic aero- and facultative anaerobic micro-organisms; intestinal bacillus group (coliforms) E.coli Pathogenic micro-organisms, incl. Salmonella Yield Mould Live cells of producer	1 x 1E4 0,1 1,0 1,0 10,0 10 50 not allowed for yield and lisants in 0,1 g	COE/g max. Weight (g) in which they are not allowed Ditto Ditto Ditto COE/g max. <*> for BAA from sea plants

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<*> Residual quantity of pesticides used in connection with production of raw material shall be under control (see section 3.12, 3.13.)

<**> In case of use of chemical methods in connection with detection of grizine, bacytracine, penicillin, streptomycin and other antibiotics of the same group actual quantity shall be changed into units/g in accordance with activity rate of the standard.

Appendix 3
To SanPiN 2.3.2.1078-01,
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3.1.5. Additional food for children on fish basis

3.1.5.1. Tinned fish food

1) Nutritional value (in 100 g of the product)

Criteria and indexes	Measurement units	Permissible levels		Comments
		rationed	marked	
Mass portion of dry substances	G	15-25	-	
Protein	G	8-15	+	
Fat	G	5-11	+	
Nutritional value	kcal	100-155	+	
Salt	G, max.	0,4	+	
Mineral agents: iron	ditto	0,4-3,0	+	For enriched products
Vitamines:				For enriched
Tiamine (B1)	Mg	0,1-0,2	+	products
Riboflavin (B2)	Mg	0,1-0,3	+	Ditto
Niacin (PP)	mg	1-4	+	ditto
Starch	g, max.	3	-	Thickener
		5	-	ditto

2)Safety Factors:

Description	Permissible levels, Mg/kg, max.	Comments
Toxic elements: Lead	0,5	

Arsenic Cadmium Mercury tin	0,5 0,1 0,15 100	 For tinned products in prefabricated tins
Pesticides: <*> hexachlorcyclohexan (alpha-, beta-, gamma-isomers), DDT and its metabolites Polychloride biphenyls	0,02 0,01 0,5	
Histamine	100	
Nitrosamine	Not allowed	<0,001
Radio-nucleids: caesium-137 and strontium-90	 100 60	 Bk/kg ditto
Microbiological factors	Shall meet requirements concerning industrial sterility for tinned products, class A, in accordance with provisions of Appendix 8 of these Sanitary rules	

Appendix 6

To SanPiN 2.3.2.1078-01,
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PARASITOLOGICAL SAFETY FACTORS
(FISH, CRUSTACAE, MOLLUSCS, AMPHIBIANS,
REPTILES AND PRODUCTS <*>)

Table 1

River (freshwater(fish) and processed fish products

Index	Product group	Parasitological factors and permissible Content levels													
		Live larvae													
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1.	The Carp family	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	-	-	-	n/a	-
2.	The Pike family	-	-	-	-	n/a	-	-	-	n/a	n/a	-	-	n/a	-
3.	The Perch family	-	-	-	-	-	-	-	n/a	n/a	n/a	-	-	-	-
4.	The Salmon family	-	-	-	-	n/a	-	-	n/a	-	n/a	n/a	-	-	-
5.	The Sig family	-	-	-	-	-	-	-	-	-	n/a	-	-	-	-
6.	The Grayling family	-	-	-	-	n/a	-	-	-	-	n/a	-	-	-	-
7.	The Cod family	-	-	-	-	-	-	-	-	-	n/a	-	-	-	-
8.	The Sturgeon family	-	-	-	-	-	-	-	-	-	-	n/a	n/a	-	-
9.	The Snakehead-fish family	-	-	-	-	-	-	-	-	-	-	-	-	-	n/a

10.	The Under-stone-fish family	-	-	-	-	-	-	-	-	-	-	-	-	n/a	-
11.	The Sheat-fish family	-	-	-	-	-	-	-	-	-	-	-	-	n/a	-
12.	Minced fish of Species mentioned in 1-11	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
13.	Tinned and preserved products from fish species mentioned in 1-11	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
14.	Fried, jelled, salted, pickled, Smoked, dried fish of the species mentioned in 1-11	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
15.	Hard roe (caviar) Of fish of the following families:	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
15.1.	The pike, perch, cod (eel-pot species), the grayling family	-	-	-	-	-	-	-	-	-	n/a	-	-	-	-
15.2.	The salmon family	-	-	-	-	-	-	-	-	-	n/a	n/a	-	-	-
15.3.	The sig family	-	-	-	-	-	-	-	-	-	n/a	-	-	-	-
15.4.	The sturgeon family (the Amur, the Volga river, Caspian sea)	-	-	-	-	-	-	-	-	-	-	n/a	-	-	-

Notes: 1) n/a – live larvae not allowed;

2) Parasites larvae

1	2	3
3- Opistorhis 4- klonorhis 5- pseudamphist 6- metagonimus 7- nanophietus 8- echinohasmus 9- metorhis 10-rossicotrem 11-apophalus	12-diphillobotrium	13- anizakis 14-contracecum 15-dioctophim 16-gnatostom

Table 2

Passing fish and processed products

Index	Product group	Parasitological factors and permissible Content levels					
		Live larvae					
1	2	3	4	5	6	7	8

1.	Salmon	-	n/a	n/a	-	-	-
2.	Far East Salmon	n/a	n/a	n/a	n/a	n/a	n/a
3.	Minced fish mentioned in sections 1 Section 2	- n/a	n/a n/a	n/a n/a	- n/a	- n/a	- n/a
4.	Tinned and preserved products from fish species mentioned in section 1 Section 2	- n/a	n/a n/a	n/a n/a	- n/a	- n/a	- n/a
5.	Fried,jelled, salted, pickled, Smoked, dried fish of the species mentioned in section 1 Section 2	- n/a	n/a n/a	n/a n/a	- n/a	- n/a	- n/a
6.	Hard roe (caviar) Of the species mentioned in sections 1–2	-	n/a	n/a	-	-	-

Notes: 1) n/a – live larvae not allowed;

2) parasites larvae

Trematodas	Cestodas	Trichuris vulpis	Acanthocephalus lucii
3– nanophietus	4– diphillobotrium	5– anizakis	7–bolbozoma
		6– contracecum	8–corinozoma

Table 3

Sea fish and processed products

Index	Product group	Parasitological factors and permissible Content levels Live larvae												
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
	Sea fish (divided acc. to fishing areas and species)													
1.	Barents Sea:													
1.1.	The salmon family	–	–	–	–	–	n/a	–	–	n/a	–	–	–	–
1.2.	The smelt family	–	–	–	–	–	n/a	–	–	n/a	–	–	–	–
1.3.	The herring family	–	–	–	–	–	–	–	–	n/a	–	–	–	–
1.4.	The cod family	–	–	n/a	–	–	n/a	–	n/a	n/a	n/a	n/a	n/a	–
1.5.	The scorpen family	–	–	–	–	–	–	–	–	n/a	–	–	–	–
1.6.	The flat-fish family	–	–	–	–	–	–	–	–	n/a	–	–	–	–
2.	Northern Atlantics													
2.1.	The smelt family	–	–	n/a	–	–	–	–	–	n/a	–	–	–	–
2.2.	The herring family	–	–	n/a	–	–	–	–	–	n/a	–	n/a	–	–
2.3.	The cod family	–	–	n/a	–	–	n/a	–	–	n/a	–	–	–	–
2.4.	The macrorus family	–	–	–	–	–	–	–	–	n/a	–	–	–	–
2.5.	The merlusa	–	–	–	–	–	–	–	–	n/a	–	–	–	–

	family													
2.6.	The mackerel family	–	–	–	–	–	–	–	–	n/a	–	–	–	n/a
2.7.	The scorpen family	–	–	–	–	–	–	–	–	n/a	–	–	–	–
2.8.	The flat-fish family	–	–	n/a	–	–	–	–	–	n/a	–	–	–	–
3.	Southern Atlantics													
3.1.	The merlusa family	–	–	–	–	–	–	–	–	n/a	–	–	–	n/a
3.2.	The horse-mackerel family	–	–	–	–	–	–	–	–	n/a	–	–	–	–
3.3.	The bullock-tail family	–	–	–	–	–	–	–	–	n/a	–	–	–	n/a
4.	Baltic Sea													
4.1.	The smelt family	–	–	–	–	–	–	–	–	–	–	–	n/a	–
4.2.	The herring family	–	–	–	–	–	–	–	–	n/a	–	–	n/a	–
4.3.	The cod family	–	–	n/a	–	–	–	–	–	n/a	–	–	–	–
4.4.	The flat-fish family	–	–	–	–	–	–	–	–	n/a	–	–	–	–
5.	Black Sea, Azov Sea, Mediterranean Sea													
5.1.	The bull-head fish family	–	n/a	–	n/a	n/a	–	–	–	–	–	–	–	–
5.2.	The grey mullet family	–	n/a	–	–	–	–	–	–	–	–	–	–	–
6.	Sub-Antarctic, Antarctic	–	–	–	–	–	–	–	–	n/a	–	–	–	n/a
4.1.	The cod family	–	–	–	–	–	–	–	–	n/a	n/a	n/a	n/a	n/a
6.2.	The merlusa family	–	–	–	–	–	–	–	–	n/a	n/a	n/a	n/a	n/a
6.3.	The Oshibny family	–	–	–	–	–	–	–	–	n/a	–	–	–	–
6.4.	The nototenia family	–	–	–	–	–	n/a	–	–	n/a	n/a	n/a	n/a	n/a
6.5.	The white blood fish family	–	–	–	–	–	n/a	–	–	n/a	n/a	n/a	n/a	n/a
7.	Indian Sea													
7.1.	The horse-mackerel family	–	–	–	–	–	–	–	–	n/a	–	–	–	–
7.2.	The mackerel family	–	–	–	–	–	–	–	–	n/a	–	–	–	–
7.3.	The thread fin fish family	–	–	–	–	–	–	–	–	n/a	–	–	–	–
8.	Pacific Ocean													
8.1.	The salmon family	n/a	–	–	n/a	–	n/a	–	–	n/a	n/a	–	n/a	n/a
8.2.	The anchovy family	–	–	–	–	–	–	–	–	n/a	–	–	–	–
8.3.	The herring family	–	–	–	–	–	–	–	–	n/a	–	–	–	–
8.4.	The horse-mackerel family	–	–	–	–	–	n/a	–	–	n/a	n/a	–	–	–
8.5.	The rasp family	–	–	–	–	–	–	–	–	n/a	n/a	–	n/a	–
8.6.	The flat-fish family	–	–	–	–	–	–	n/a	–	n/a	–	–	n/a	–
8.7.	The Scorpen family	–	–	–	–	–	–	–	–	–	–	–	–	n/a
8.8.	The berisk family	–	–	–	–	–	–	–	–	–	–	–	–	n/a
8.9.	The hempile family	–	–	–	–	–	–	–	–	–	–	–	–	n/a
8.10.	The tunny family	–	–	–	–	–	–	–	–	–	–	–	–	n/a
8.11.	The cod family	–	–	–	–	–	–	–	n/a	n/a	–	n/a	–	–

9.	Minced fish mentioned in sections 1-8	n/a	n/a	n/a	n/a	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
10.	Tinned and preserved products from fish species mentioned in 1-8	n/a	n/a	n/a	-	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
11.	Fried, jelled, salted, pickled, Smoked, dried fish of the species mentioned in 1-8	n/a	n/a	n/a	-	-	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
12.	Hard-roe (caviar) of Cod fish	–	–	–	–	–	–	–	–	n/a	–	n/a	–	–
13.	Cod fish liver	–	–	–	–	–	–	–	–	n/a	–	n/a	–	–

Notes: 1) n/a – live larvae not allowed;

2) parasites larvae

Trematodas	Cestodas	Trichuris vulpis	Acanthocephalus lucii
3- nanophietus 4- heterophietus 5- cryptocortilus 4- klonorhis 6- rossicotrem 7- apophalus	8-diphillobotrium 9-diplogonoporus 10-pyramicocephalus	11- anizakis 12-contracecum 13-preudoterranium	14-bolbozoma 15-corinozoma

Table 4

Crustaceans, sea mollusks, Amphibians, reptiles and processed products

Index	Product group	Parasitological factors and permissible Content levels								
		Live larvae								
1	2	3	4	5	6	7	8	9	10	11
1.	Crustaceans and processed products									
1.1.	Crawfish from the Far East water-reservoirs (Russia, Korean peninsula, Korean People's republic etc.)	n/a	–	–	–	–	–	–	–	–
1.2.	Freshwater shrimps from the Far East water-reservoirs (Russia, Korean peninsula)	n/a	–	–	–	–	–	–	–	–
1.3.	Freshwater crabs from the Far East water-reservoirs of Russia, South-East Asia, Shri-Lanka, Central America, Peru, Liberia, Nigeria, Cameroon, Mexico, Philippines)	n/a	–	–	–	–	–	–	–	–

1.4.	Dressing of freshwater crabs (see section 1.3.)	n/a	–	–	–	–	–	–	–	–
2.	Sea mollusks and processed products									
2.1.	Squids	–	–	n/a	n/a	n/a	–	–	–	–
2.2.	Octopus	–	–	n/a	–	n/a	–	–	–	–
2.3.	Crests	–	–	–	–	–	–	–	n/a	–
2.4.	Spizulas	–	–	–	–	–	–	–	n/a	–
2.5.	Oysters	–	–	–	–	–	–	–	–	n/a
3.	Amphibians (frogs)	–	n/a	–	–	–	n/a	n/a	–	–
4.	Reptiles									
4.1.	Snakes	–	n/a	–	–	–	–	–	–	–
4.2.	Tortillas									
4.2.1.	Sea	–	–	–	–	–	–	–	n/a	–
4.2.1.	Freshwater	–	–	–	–	–	–	n/a	–	–

Notes: 1) n/a – live larvae not allowed;

2) parasites larvae

Trematodas	Cestodas	Trichuris vulpis
3– paragonimus	4–spyromer	5– anizakis 6–contracecum 7–preudoterranium 8–dioctophim 9–gnatostom 10–sulcascaris 11–echinocephalus

Appendix 8

To SanPiN 2.3.2.1078-01,
Approved by Decree
No: 36 dated
November 14, 2001,
of
The Russian Federation
Chief State
sanitary physician

HYGIENIC SAFETY REQUIREMENTS IN RESPECT OF TINNED FOODSTUFF

Depending on the composition of the tinned food product active oxide value (pH) of tinned food products and content of dry substances tinned products shall be divided into 5 groups: А, Б, В, Г, Д, Е.

Tinned products of groups А, Б, В, Г and Е shall be called complete tinned products, and group Д – semi-preserved products.

Diary products (drinking milk, cream, sweet products etc.) processed and packed in aseptic packages, shall comprise an independent group of sterilized products.

Tinned products for children and dietary products shall be divided into groups as described above.

Food products packed in sealed containers and thermally processed, what provide for the microbiological stability and safety of the product during storage and realization in normal conditions (not in refrigerators), shall be considered full tinned products.

Food products packed in sealed containers and thermally processed, what provide for the destruction of non-heat resistant non-spore-forming micro-flora, reducing the amount of spore-forming micro-organisms and ensuring microbiological stability and safety of the product for a limited period of shelf-life in temperature conditions of +6°C and lower, shall be considered semi-tinned products.

There are the following groups of tinned products:

- group A - tinned foodstuff with pH of 4,2 and more, as well as vegetable, meat, meat and vegetable, fish and vegetable and fish tinned products with unlimited pH, produced without using acids; compotes , juices and purees of apricots, peaches and pears, having pH of 3,8 and more; thickened sterilized diary tinned products; multi-component mixed tinned products (fruits and berries, fruits and vegetables and vegetables with diary products);

- group Б - tinned tomato products:

а) non-concentrated tomato products (whole tinned tomatoes, tomato juice) with dry content less than 12%;

б) concentrated tomato products, with dry content of 12% and more (tomato paste, tomato dressings, ketchups etc.);

- group В - tinned light sour vegetable pmarinades, jucies, salads, beetroot salads and other products having pH of 3,7 - 4,2, including tinned cucumbers, vegetable and other products with regulated acidity value;

- group Г - tinned vegetables having pH of less than 3,7, tinned fruits and fruit and berry mixtures pasteurized, tinned products for public catering with sorbate acid having pH of less than 4,0; tinned apricots, peaches and pears with pH of less than 3,8; vegetable juices having pH of less than 3,7, fruit (citrus), fruit and berry (including with sugar), natural juices with pulp, concentrated, pasteurized; tinned juices of apricots, peaches and pears having pH of 3,8 and less; beverages and concentrates on vegetable basis with pH of 3,8 and less, packed in aseptic packages;

- group Д - pasteurized meat, meat and vegetable, fish and fish and vegetable tinned products (salted pork, salted and smoked beacon, sausages, ham etc.);

- group Е - pasteurized sparkling fruit juices and sparkling fruit soft drinks having pH of 3,7 and less.

Samples shall be taken and prepared for laboratory examination in respect of their compliance with safety requirements concerning microbiological factors after: visual inspection and sanitary treatment; inspection of seals; thermostatic examnination; determination of appearance of the tinned product after thermostatic examination.

Table 1

Microbiological safety factors (industrial sterility level) of full tinned products, groups А and Б <*>

NN	Micro-organisms found in tinned products	General purpose tinned products	Tinned products for children and dietary products
1.	Spore-forming mesophilic aerobic and facultative and anaerobic micro-organisms, group B.subtilis	Meet industrial sterility level requirements. Should amount of such micro-organisms be determined, it shall not exceed 11 cells per 1 g(cm3) of the product.	
2.	Spore-forming mesophilic aerobic and facultative and anaerobic micro-organisms,	Do not meet industrial sterility level requirements.	

	group B.cereus and (or) B.polymyxa		
3.	Mesophilic clostridies	Meet industrial sterility level requirements if Found clostridies are not of C botulinum and/or C.perfrin-gens. Group. Should amount of such micro-organisms be determined, it shall not exceed 1 cell per 1 g(cm3) of the product.	Do not meet industrial sterility level requirements if Found clostridies If found in 10 g (cm3) of the product
4.	Non-spore-forming micro-organisms and/or mould, and/or yield	Do not meet industrial sterility level requirements.	
5.	Mould, yield, sour milk micro-organisms	-	Do not meet industrial sterility level requirements
6.	Spore-forming thermophilic anaerobic, aerobic and facultative and anaerobic micro-organisms	Meet industrial sterility level requirements, but storage temperature shall not be over 20°C	Do not meet industrial sterility level requirements

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<*> Industrial sterility level of thickened sterilized diary tinned products shall be evaluated in accordance with actual state norms.

Table 2

Microbiological safety factors (industrial sterility level) of full tinned products, group B and Г

NN	Micro-organisms found in tinned products	Group B	Group Г
1.	Gas-forming and spore-forming mesophilic aerobic and facultative and anaerobic micro-organisms, group B.polymyxa	Do not meet industrial sterility level requirements	Not defined
2.	Non-gas-forming and spore-forming mesophilic aerobic and facultative and anaerobic micro-organisms, group B.polymyxa	Meet industrial sterility level requirements if the amount of micro-organisms in the product does not exceed	Not defined

		90 COE/g (cm3)	
3.	Mesophilic clostridies	Meet industrial sterility level requirements if Found clostridies are not of C botulinum and/or C.perfrin-gens. Group. Should amount of such micro-organisms be determined, it shall not exceed 1 cell per 1 g(cm3) of the product.	Not defined
4.	Non-spore-forming micro-organisms and/or mould, and/or yield	Do not meet industrial sterility level requirements.	

Table 3

Microbiological safety factors (industrial sterility level) of full tinned products, group Е

NN	Description	Permissible level meeting the industrial sterility level requirements
1.	Amount of mesophilic aerobic and facultative and anaerobic micro-organisms	Max. 50 COE/g (cm3)
2.	Sour milk micro-organisms	Not allowed in 1 g (cm3) of the product
3.	intestinal pathogenic protozoa (coliforms)	Not allowed in 1000 g (cm3) of the product
4.	Yield	Not allowed in 1 g (cm3) of the product
5.	Mould	Max. 50 COE/g (cm3)

Table 4

Microbiological safety factors (industrial sterility level) of full tinned products, group Д

NN	Description	Permissible level meeting the industrial sterility level requirements
1.	Amount of mesophilic aerobic and facultative and anaerobic micro-organisms	Max. 2 x 1E2 COE/g (cm3)

2.	intestinal pathogenic protozoa (coliforms)	Not allowed in 1 g (cm3) of the product
3.	B.Cereus	Not allowed in 1 g (cm3) of the product
4.	Sulphite reducing clostridies	Not allowed in 0,1 g (cm3) of the product
5.	S. aureus	Not allowed in 1 g (cm3) of the product
6.	Pathogenic micro-organisms, incl. salmonella	Not allowed in 25 g (cm3) of the product

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<*> For fish semi-tinned products - not allowed in 1,0 g (cm3) of the product.