



มาตรฐานเกี่ยวกับการตรวจวิเคราะห์ทางด้านเคมี สำหรับสหพันธรัฐรัสเซีย

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Technical Regulations of the Customs Union
TR CU 021/2011
On Food Safety,

Appendix 3 Gienicheskie safety requirements for food products



Indicators	Products	Maximum levels
Lead	All kinds of fish products (except tuna species, swordfish, beluga) and the meat of marine mammals, including dried products	1.0 mg/kg
	Tuna, swordfish, beluga - all kinds of products, including dried products	2.0 mg/kg
	Molluscs, crustaceans and other invertebrates, amphibians, reptiles	10.0 mg/kg
	Algae and sea grass	0.5 mg/kg



Indicators	Products	Maximum levels
Arsenic	All kinds of Freshwater fish products (except for eggs, milk, fish oil) and meat of marine mammals, including dried products	1.0 mg/kg
	All kinds of Marine fish products (except for eggs, milk, fish oil) and meat of marine mammals, including dried products	5.0 mg/kg
	Roes of fish and their products; Analogues of caviar ; Fish oil	1.0 mg/kg
	Molluscs, crustaceans and other invertebrates, amphibians, reptiles; Algae and sea grass	5.0 mg/kg



Indicators	Products	Maximum levels
Cadmium	All kinds of fish products and marine mammals (except for eggs, milk and cookies), including dried products	0.2 mg/kg
	Roes of fish and their products; Analogues of caviar; Algae and sea grass	1.0 mg/kg
	Fish liver and products therefrom	0.7 mg/kg
	Molluscs, crustaceans and other invertebrates, amphibians and reptiles	2.0 mg/kg



Indicators	Products	Maximum levels
Mercury	All kinds of freshwater non-predatory fish products including dried products	0.3 mg/kg
	All kinds of freshwater predatory fish products including dried products	0.6 mg/kg
	All kinds of sea water fish products and meat of marine mammals, including dried products	0.5 mg/kg
	Tuna, swordfish, beluga - all kinds of products (except for eggs, milk, liver, fish oil), including dried products	1.0 mg/kg
	Fish liver and products therefrom	0.5 mg/kg
	Fish oil	0.3 mg/kg
	Roes of fish and their products; analogs caviar; Molluscs, crustaceans and other invertebrates, amphibians, reptiles	0.2 mg/kg
	Algae and sea grass	0.1 mg/kg



Indicators	Products	Maximum levels
Tin	Canned and preserved fish, fish liver and products from it in prefabricated tin tare	200 mg/kg
Chrome	Canned and preserved fish, fish liver and products from it in chrome container	0.5 mg/kg
HCH (isomers)	All products of freshwater fish, other than liver, eggs, milk, fish oil, dried and other products ready to eat	0.03 mg/kg
	All products of sea fish and meat of marine mammals (except liver and fish oil); And roes of fish and their products; Analogues of caviar	0.2 mg/kg
	Fish oil	0.1 mg/kg
	Fish liver and products produced therefrom	1.0 mg/kg



Indicators	Products	Maximum levels
DDT and its metabolites	All products of the freshwater fish (except liver, eggs and milk, fish oil, dried, and other products, ready-to-eat)	0.3 mg/kg
	All kinds of products from marine fish (except sturgeon, salmon and herring fatty) meat and marine mammals (other than liver, eggs and milk, dried, and other products, ready-to-eat); Fish oil	0.2 mg/kg
	Sturgeon, salmon, herring fat - all products (except liver, eggs and milk), including dried, smoked, salted, spiced, marinated, fish cooking and other products, ready-to-eat	2.0 mg/kg
	Fish (except sturgeon, salmon and herring fat), dried, smoked, salted, spiced, marinated, fish cooking and other fishing products, ready-to-eat; And roes of fish (all kinds), and their products; Analogues of caviar	0.4 mg/kg
	Fish liver and products therefrom	3.0 mg/kg
2,4-D acid, its salts and esters	All products of the freshwater fish	not allowed

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Appendix 4. Acceptable levels of cesium-137 and strontium-90



Indicators	Products	Maximum levels Bq/kg
Cesium-137	Fish and fish products	130
	Fish dried	260
Strontium -90	Fish and fish products	100

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Safety requirements of food additives, flavorings and processing aids,

Appendix 4 Hygienic standards applying antioxidants



Indicators	Food Products	Maximum levels
Butylhydroxyanisole (E320, BOA, BHA), Butylhydroxytoluene (E321, "Ionol" BOT, BHT), tert-butyl hydroquinone (E319, TBHQ, TBHQ), gallic acid esters (gallates) propyl gallate (E310), Octyl gallate (E311), dodetsilgallat (E312) - individually or in combination	fat fish and marine mammals	RAB - 200 mg / kg, BHT - 100 mg / kg, TBHQ - 200 mg / kg, gallates - 200 mg / kg (on fat product)
4-Hexylresorcinol (E586)	Fresh and frozen crustaceans	2 mg / kg of residues in the meat of crustaceans
Isoascorbic (erythorbic) acid (E315), sodium isoaskorbat (E316) – alone or in combination, based on isoascorbic acid	Fish and caviar preserves, canned, salted and dried fish, fish with red skin frozen	1.5 g / kg



Indicators	Food Products	Maximum levels
Izopropiltsitratnaya mixture (E384)	tallow fat fish and marine mammals	200 mg / kg
Calcium-sodium ethylenediaminetetraacetate (E385, calcium sodium EDTA) disodium ethylenediaminetetraacetate (EDTA-disodium E386) - individually or in combination	Fish, crustaceans and shellfish, canned and pasteurized	75 mg / kg
	Frozen crustaceans	75 mg / kg
Extracts of rosemary (E392), based on the sum of carnosol and carnosic acid	fat fish and marine mammals	50 mg / kg (on fat product)
	fish products (except dried meat and dry (dried) sausages)	150 mg / kg (on fat product)

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Safety requirements of food additives, flavorings and processing aids

Appendix 8 Hygienic standards preservatives



Indicators	Food Products	Maximum levels
Benzoic acid (E210), benzoates and salts thereof: sodium benzoate (E211) Potassium benzoate (E212), calcium benzoate (E213) - individually or in combination benzoic acid equivalent	Preserved fish, including caviar	2 g / kg (2,000 mg/kg, ppm)
	Fish, salted, dried	200 mg / kg



Indicators	Food Products	Maximum levels
Sorbic acid (E200) and its salts sorbates: sodium (E201) Potassium (E202), calcium (E203), - alone or in combination, based on sorbic acid	Preserved fish, including caviar	2 g / kg
	Fish, salted, dried	200 mg / kg
	Cooked crustaceans and molluscs	2 g / kg
Sorbic acid and sorbates (E200, E201, E202, E203) in combination with benzoic acid and benzoates (E210, E211, E212, E213) - individually or in combination, based on the corresponding acid	Preserved fish, including caviar	2 g / kg
	Fish, salted, dried	200 mg / kg
	Cooked crustaceans and molluscs	2 g / kg, including benzoates less than 1 g / kg



Indicators	Food Products	Maximum levels
Sulfurous acid (E220 sulfur dioxide) and salts thereof: bisulfite (sodium bisulfite) potassium E228, E227 calcium sulfite, sodium hydrosulfite E222, E224 potassium metabisulphite, sodium metabisulphite E223, E225 potassium sulfite, E226 calcium sulfite, sodium sulfite E221 - alone or in combination, based on the sulfur dioxide (2)	Dried and salted fish	200 mg / kg
	Crustaceans and cephalopods: - Fresh, frozen	150 mg / kg in the edible parts
	Crustaceans and cephalopods: - Crustaceans Penaeidae, Solenoceridae, Aristaeidae fresh, frozen	300 mg / kg in the edible parts
	Crustaceans and cephalopods: - Boiled	50 mg / kg in the edible parts
	- Crustaceans Penaeidae, Solenoceridae, Aristaeidae boiled	270 mg / kg in the edible parts

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Safety requirements of food additives, flavorings and processing aids

Appendix 11 Hygienic regulations for the application of dyes



Indicators	Food Products	Maximum levels
Azorubin (E122, Karmuazin), Allura Red AC (E129), beta-apo-8'-carotene aldehyde (C30) (E160) beta-apo-8'-carotene acid (C30) ethyl ester (E160f) Yellow "sunset" FCF (E110), quinoline yellow (E104) Green S (E142) Green robust FCF (143) Indigo carmine (E132) Carmine (E120, Cochineal) Brown HT (E155) Curcumin (E100), lycopene (E160d) Lutein (E161b), Ponce 4R (E124) Brilliant blue FCF (E133), patent blue V (E131) Tartrazine (E102) Brilliant Black PN (E151) alone or in combination	Pasta - fish and shellfish	100 mg / kg
	Crustaceans - semi-finished boiled	250 mg / kg
	Fish "under the Salmon"	500 mg / kg
	Minced fish surimi	500 mg / kg
	Fish roe	300 mg / kg
	Smoked fish	100 mg / kg

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Safety requirements of food additives, flavorings and processing aids
Appendix 13 Hygienic standards applying sweeteners



Indicators	Food Products	Maximum levels
Aspartame-acesulfame salt (E962) - the highest level of content in the product: acesulfame potassium - AC, Aspartame - AU	Sweet-sour preserves of fish and marinades of fish, crustaceans and molluscs	AC 200 mg / kg
Sucralose (E955, trihlorgalaktosaharoza)	Sweet-sour preserves of fish and marinades of fish, crustaceans and molluscs	120 mg / kg



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Safety requirements of food additives, flavorings and processing aids

Annex 15

Hygienic Standards application stabilizers, emulsifiers, thickeners and fillers

Indicators	Food Products	Maximum levels
Isomalt, isomalt (E953) xylitol (E967), lactitol (E966), maltitol and maltitol syrup (E965) mannitol (E421), sorbitol (E420) erythritol (E968)	Frozen fish, crustaceans, molluscs and cephalopods	According to TI



Indicators	Food Products	Maximum levels
Phosphoric acid (E338) and edible Phosphates: ammonium (E342), potassium (E340) calcium (E341, 542) magnesium (E343), sodium (E339) Pyrophosphate (E450) triphosphate (E451) Polyphosphates (E452) - phosphate added alone or in combination, based on	Fish fillets, raw, ice cream	5 g / kg of added phosphate 10 g / kg of total (natural + added) phosphate
	Shellfish (treated and untreated), frozen	Added 5 g of phosphate per 1 kg of raw shellfish 10 g total (natural + added) phosphate per 1 kg of raw shellfish
	Minced fish " surimi "	1 g / kg (1,000 mg/kg, ppm)
	Fish and shrimp paste,	5 g / kg
	Minced fish ice cream and articles thereof	Added 5 g of phosphate per 1 kg of fish raw material 10 g total (natural + added) phosphate per 1 kg of fish raw material
	Canned shellfish	Adding phosphate 1 g per 1 kg of raw shellfish

TECHNICAL REGULATION of the Eurasian Economic Union
'On the safety of fish and fish products'
(TR EAES 040/2016)



ANNEX 2 Maximum Allowed Levels of Residual Veterinary Drug Content, Animal Growth Stimulants (including hormonal preparations), Medicines (including antimicrobial medicines) in Aquaculture Food Products of Animal Origin

Indicators	Aquaculture Food Products of Animal Origin	Maximum levels mg/kg
I. Maximum permissible levels of antimicrobial residues		
Amoxicillin (penicillins)	muscle tissue in natural proportion with the skin	0.05
Ampicillin (penicillins)	muscle tissue in natural proportion with the skin	0.05
Bacitracin (polypeptides)		not permissible (<0.02)
Benzylpenicillin/Penethamate (Penetamate)	muscle tissue in natural proportion with the skin	0.05
Danofloxacin (quinolones)	muscle tissue in natural proportion with the skin	0.1



Indicators	Aquaculture Food Products of Animal Origin	Maximum levels mg/kg
Dicloxacillin (penicillins)	muscle tissue	0.3
Difloxacin (quinolones)	muscle tissue in natural proportion with the skin	0.3
Cloxacillin (penicillins)	muscle tissue	0.3
Colistin (polymyxins)	muscle tissue in natural proportion with the skin	0.15
Lasalocid (ionophores)	muscle tissue	0.005
Laevomycetinum (chloramphenicol)		not permissible (<0.0003)
Metronidazole / Dimetrazole / Ronidazole / Dapsone/ Clotrimazole / Aministrizole	muscle tissue	not permissible at the level of method definition



Indicators	Aquaculture Food Products of Animal Origin	Maximum levels mg/kg
Neomycin	muscle tissue	0.5
Nitrofurans (including furazolidone)	muscle tissue	not permissible at the level of method definition
Oxacillin (penicillins)	muscle tissue	0.3
Oxolinic acid (quinolones)	muscle tissue in natural proportion with the skin	0.1
Paromomycin (Aminoglycosides)	muscle tissue	0.5
Sarafloxacin (quinolones)	muscle tissue of fish form the salmonids in natural proportion with the skin	0.3



Indicators	Aquaculture Food Products of Animal Origin	Maximum levels mg/kg
Spectinomycin (Aminoglycosides)	muscle tissue	0.3
Tetracycline group Tetracycline ATX (Tetracyclines)		not permissible (<0.01)
Thiamphenicol (Florfenicola) (as a sum of Thiamphenicol and Thiamphenicol conjugates based on thiamphenicol)	muscle tissue in natural proportion with the skin	0.05
Tilmicosin (macrolides)	muscle tissue in natural proportion with the skin	0.05
Tylosin (macrolides)	muscle tissue in natural proportion with the skin	0.1
Flavomycin (streptotricin) (flavophospholipol)	muscle tissue	0.7



Indicators	Aquaculture Food Products of Animal Origin	Maximum levels mg/kg
Florfenicol (Florfenicols) (total florfenicol and its metabolites in the form of florfenicol amine)	muscle tissue in natural proportion with the skin	0.1
Flumequine (quinolone)	muscle tissue in natural proportion with the skin	0.6
Ciprofloxacin / enrofloxacin / pefloxacin (fluoroquinolones) (Total fluoroquinolones)	muscle tissue	0.1
Erythromycin (macrolides)	muscle tissue in natural proportion with the skin	0.2



Indicators	Aquaculture Food Products of Animal Origin	Maximum levels mg/kg
II. The maximum permissible levels of antiprotozoal remnants		
Halofuginone	muscle tissue	0.01
Decoquinate	muscle tissue	0.02
Diclazuril (as diclazuril)	muscle tissue	0.005
Maduramicin	muscle tissue	0.002
Narasin	muscle tissue	0.005
Nicarbazin (as N'-bis (4-nitrophenyl) Urea)	muscle tissue	0.025
Robenidine (Robenidine Hydrochloride)	muscle tissue	0.005
Salinomycin (Salinomycin sodium)	muscle tissue	0.002
Semduramicin	muscle tissue	0.002



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ANNEX 4 Hygienic requirements for the safety of fishery and aquaculture products

Indicators	Fishery and Aquaculture Products	Maximum levels mg/kg
Histamine	Tuna, mackerel, salmon, herring, as well as fish food products from them (except caviar, roe, liver and fat from fish), including dried products	100
Nitrosamines (the sum of N-nitrosodimethylamine (NDMA) and N-nitrosodiethylamine (NDEA))	All kinds of food fish products, including dried products	0.003
Dioxines	All kinds of food fish products, including dried products	0.000004
	edible fat from fish	0,000002 (expressed in terms of fat)



Indicators	Fishery and Aquaculture Products	Maximum levels mg/kg
Polychlorinated biphenyls	All kinds of food fish products (except for liver and fat from fish), including dried products	2 mg/kg
	fish liver and products from it	5 mg/kg
	edible fat from fish	3 mg/kg
Benzo[a]pyrene	smoked fish food products	0.005 mg/kg
Paralytic poison of mollusks (saxitoxin)	Mollusks	0.8 mg/kg
Amnesic poison of mollusks (domoic acid)	Mollusks	20 mg/kg
	Internal organs of crabs	30 mg/kg
Diarrhetic shellfish poison (okadaic acid)	Mollusks	0.16 mg/kg
Acid value	Fish oil	4 mg KOH/g
Peroxide number, mole of active oxygen / kg	fat from fish	10 mg/kg



Thank you

