

ALLOWABLE LEVELS  
OF POTENTIALLY DANGEROUS SUBSTANCES IN RAW MILK  
AND RAW CREAM

Products	Potentially Dangerous Substances	Allowable Levels, mg/kg (L), not to exceed
Raw milk, raw cream	Toxic elements:	
	Lead	0.1
	Arsenic	0.05
	Cadmium	0.03
	Mercury	0.005
	Mycotoxins:	
	Aflatoxin M1	0.0005
	Antibiotics:	
	Levomitsetin (chloramphenicol)	Not allowed
	Tetracycline Group	Not allowed
	Streptomitsin	Not allowed
	Penicillin	Not allowed
	Inhibitory Substances	Not allowed
	Pesticides (in fat equivalent):	
Hexachlorocyclohexane (alpha-, beta-, gamma-isomers)	0.05 (1.25 for cream)	
DDT <1> and its metabolites	0.05 (1.0 for cream)	
Radionuclides:		
Caesium-137	100 Bq/L	
Strontium-90	25 Bq/L	

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<1> DDT - dichlor-diphenyl-trichlorethylene, an insecticide.

ALLOWABLE LEVELS  
OF MICROORGANISMS AND SOMATIC CELLS IN RAW  
MILK AND RAW CREAM

Products	QMAFAnM <1>, CFU <2>/cm <sup>3</sup> (g), not to exceed	Weight of product (g, cm <sup>3</sup> ), in which are not allowed		Somatic cell count, in 1 cm <sup>3</sup> (g), not to exceed
		CGB <3> (coliforms)	pathogenic, including salmonella	
Raw milk				
premium grade	1 x 10 <sup>5</sup>	-	25	2 x 10 <sup>5</sup>
first grade	5 x 10 <sup>5</sup>	-	25	1 x 10 <sup>6</sup>
second grade	4 x 10 <sup>5</sup>	-	25	1 x 10 <sup>6</sup>
Raw cream				
premium grade	5 x 10 <sup>5</sup>	-	-	-

first grade	4 x 10 <sup>6</sup>	-	-	-
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- <1> QMAFAnM - quantity of mesophilic aerobic and facultative anaerobic microorganisms.  
 <2> KOE – colony-forming units.  
 <3> CGB – Escherichia coli group bacteria.

Addendum 3  
to the Federal Law on  
"Technical Regulations  
for Milk and Milk Products"

ALLOWABLE LEVELS  
OF POTENTIALLY DANGEROUS SUBSTANCES IN MILK  
PROCESSING PRODUCTS

Product Group	Potentially Dangerous Substances	Allowable Levels, mg/kg (L, dm <sup>3</sup> ), not to exceed
All milk processing products	Mycotoxins: Aflatoxin M1 Antibiotics: Levomitsetin (chloramphenicol) Tetracycline Group Streptomitsin Penicillin	0.0005  Not allowed  Not allowed Not allowed Not allowed
Fluid milk and fluid cream, buttermilk, milk whey, fluid fermented milk products (ayran, acidophilus milk, varenets, kefir, kumiss and kumiss product, yogurt, curdled milk, ryazhenka), sour cream, dairy component products based thereon, products heat-treated after ripening	Toxic elements: Lead Arsenic Cadmium Mercury Pesticides (in fat equivalent): Hexachlorocyclohexane (alpha-, beta-, gamma-isomers) DDT and its metabolites  Radionucleids: Caesium-137 Strontium-90 Peroxide number in sterilized fluid milk and fluid cream Acid value for fluid fermented milk products (except ayran, kumiss and kumiss product)	0.1 0.05 0.03 0.005  0.05 (for cream, sour cream – 1.25) 0.05 (for cream, sour cream – 1.0)  100 Bq/L 25 Bq/L 4.0 mmol active oxygen/kg of fat  100 degrees Turner
Curds, curd mass, granular curds, curd cheese bar, curd products, dairy component products based thereon, albumin mass, spreadable milk protein products, including those heat-treated after ripening	Toxic elements: Lead Arsenic Cadmium Mercury Pesticides (in fat equivalent): Hexachlorocyclohexane (alpha-, beta-, gamma-isomers) DDT and its metabolites Radionucleids: Caesium-137 Strontium-90 Acid value for curds and curd products	0.3 0.2 0.1 0.02  1.25 1.0  100 Bq/L 25 Bq/L 150 degrees Turner
Milk, cream, buttermilk,	Toxic elements:	

whey, dairy component products based thereon, concentrated and condensed with sugar, sterilized evaporated milk, canned milk and dairy component canned goods	<p>Lead Arsenic Cadmium Mercury Tin</p> <p>Chrome</p> <p>Pesticides (in fat equivalent) Hexachlorocyclohexane (alpha-, beta-, gamma-isomers) DDT and its metabolites</p> <p>Radionuclides: Caesium-137 Strontium-90</p>	<p>0.3 0.15 0.1 0.015</p> <p>For canned goods in assembled tin container – 200 For canned goods in chrome container – 0.5</p> <p>1.25</p> <p>1.0</p> <p>300 Bq/kg 100 Bq/kg</p>
Dairy, dry dairy component, sublimated products (milk, cream, fermented milk products, beverages, ice cream mixes, whey, buttermilk, skim milk)	<p>In reconstituted product equivalent:</p> <p>Toxic elements: Lead Arsenic Cadmium Mercury</p> <p>Pesticides (in fat equivalent): Hexachlorocyclohexane (alpha-, beta-, gamma-isomers) DDT and its metabolites</p> <p>Radionuclides: Caesium-137 Strontium-90</p>	<p>0.1 0.05 0.03 0.005</p> <p>1.25</p> <p>1.0</p> <p>500 Bq/kg 200 Bq/kg</p>
Milk protein concentrates, lactulose, milk sugar, casein, caseinates, milk protein hydrolyzates	<p>Toxic elements: Lead Arsenic Cadmium Mercury</p> <p>Pesticides (in fat equivalent): Hexachlorocyclohexane (alpha-, beta-, gamma-isomers) DDT and its metabolites</p> <p>Radionuclides: Caesium-137 Strontium-90</p>	<p>0.3 1.0 0.2 0.03</p> <p>1.25</p> <p>1.0</p> <p>300 Bq/kg 80 Bq/kg</p>
Cheese, cheese products (extra-hard, hard, medium-hard, soft), processed, whey-albumin, dry cheese pastes, sauces	<p>Toxic elements: Lead Arsenic Cadmium Mercury Benzo(a)pyrene</p> <p>Pesticides (in fat equivalent): Hexachlorocyclohexane (alpha-, beta-, gamma-isomers) DDT and its metabolites</p> <p>Radionuclides: Caesium-137 Strontium-90</p>	<p>0.5 0.3 0.2 0.03</p> <p>For smoked products – 0.001</p> <p>1.25</p> <p>1.0</p> <p>50 Bg/kg 100 Bg/kg</p>
Butter, cow's milk butter paste, milk fat	<p>Parameters of oxidative spoilage: Fat phase acidity</p> <p>Toxic elements: Lead Arsenic Cadmium</p>	<p>2.5 degrees Kettstofer (for butter and paste with components – 3.5 degrees Kettstofer)</p> <p>0.1 (for chocolate products – 0.3) 0.1 0.03 (for chocolate products –</p>

	<p>Mercury Copper Iron Tin</p> <p>Pesticides (in fat equivalent): Hexachlorocyclohexane (alpha-, beta-, gamma-isomers) DDT and its metabolites</p> <p>Radionuclids: Caesium-137 Strontium-90</p>	<p>0.2) 0.03 For reserved products – 0.4 For reserved products – 1.5 For sterilized butter in assembled tin container – 200</p> <p>1.25</p> <p>1.0</p> <p>200 Bq/kg (for milk fat – 100) 60 Bq/kg (for milk fat – 80)</p>
<p>Cream-vegetable spread, cream-vegetable rendered mixture</p>	<p>Parameters of oxidative spoilage: Peroxide number in fat extracted from a product Fat phase acidity</p> <p>Toxic elements: Lead Arsenic Cadmium</p> <p>Mercury Copper Iron Nickel</p> <p>Pesticides (in fat equivalent): Hexachlorocyclohexane (alpha-, beta-, gamma-isomers) DDT and its metabolites</p> <p>Radionuclids: Caesium-137 Strontium-90</p>	<p>10 mmol active oxygen/kg</p> <p>2.5 degrees Kettstofer (for spreads with components – 3.5 degrees Kettstofer)</p> <p>01 (for chocolate products – 0.3) 0.1 0.03 (for chocolate products – 0.2) 0.03 For reserved products – 0.4 For reserved products – 1.5 For products with hydrogenated fat – 0.7</p> <p>1.25</p> <p>1.0</p> <p>100 80</p>
<p>All types of milk and milk-based ice cream</p>	<p>Toxic elements: Lead Arsenic Cadmium Mercury</p> <p>Pesticides (in fat equivalent): Hexachlorocyclohexane (alpha-, beta-, gamma-isomers) DDT &lt;1&gt; and its metabolites</p> <p>Radionuclids: Caesium-137 Strontium-90</p>	<p>0.1 0.05 0.03 0.005</p> <p>1.25</p> <p>1.0</p> <p>100 Bq/kg 25 Bq/kg</p>
<p>Ferments starter and probiotic microorganisms for making fermented milk products, cultured butter, cheese</p>	<p>Toxic elements: Lead Arsenic Cadmium Mercury</p>	<p>For fluid (including frozen) / for dry</p> <p>0.1 / 1.0 0.05 / 0.2 0.03 / 0.2 0.005 / 0.03</p>
<p>Culture media - dry milk-based for cultivating starter and probiotic microflora</p>	<p>Toxic elements: Lead Arsenic Cadmium Mercury</p> <p>Pesticides (in fat equivalent): Hexachlorocyclohexane (alpha-, beta-, gamma-isomers) DDT &lt;1&gt; and its metabolites</p>	<p>0.3 1.0 0.2 0.03</p> <p>1.25</p> <p>1.0</p>

	Radionuclides: Caesium-137 Strontium-90	160 Bq/kg 80 Bq/kg
Enzyme preparations	Toxic elements: Lead Arsenic	10.0 3.0
Dairy component and milk-containing products with nondairy component content of more than 35 percent	Requirements as to allowable levels of toxic elements, mycotoxins, antibiotics, pesticides, radionuclides, and microbiological safety and oxidative spoilage parameters shall take into account the content and ratio of dairy and nondairy components, and the types and content levels of potentially dangerous substances therein	

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<1> DDT - dichlor-diphenyl-trichlorethylene, an insecticide.

Notes. 1. Allowable levels of pesticides, antibiotics, sulphanilamides, and food additives with antibiotic properties not stipulated herein shall be duly controlled pursuant to Russian Federation food quality and safety legislation.

2. If chemical methods are used to identify penicillin, streptomitsin and antibiotics of this group, and antibiotics of the tetracycline group, an active standard shall be used to restate their actual content in units per gram.

Addendum 4  
to the Federal Law on  
"Technical Regulations  
for Milk and Milk Products"

ALLOWABLE LEVELS  
OF MICROORGANISMS IN MILK PROCESSING PRODUCTS  
WHEN RELEASED FOR CIRCULATION

Product, Product Group	QMAFAnM <1>, CFU <2>/cm <sup>3</sup> (g), not to exceed	Weight of product (g, cm <sup>3</sup> ), in which are not allowed				Yeast (Y), Mold (M), CFU/cm <sup>3</sup> (g), not to exceed
		CGB <4> (coli-forms)	Pathogenic, including salmonella	Staphylococcus aureus	Listeria monocytogenes	
1	2	3	4	5	6	7
1. Fluid milk, fluid cream, milk and cream beverages, milk whey, buttermilk, heat-treated products based thereon, including: fluid milk in retail pack, including pasteurized	1 x 10 <sup>5</sup>	0.01	25	1	25	-
Sterilized, ultra-pasteurized (UPT) (with aseptic bottling)	Industrial sterility requirements: 1) after thermostatic heating at a temperature of 37 degrees Celsius for 3-5 days, no visible defects or signs of spoilage (swollen packs, change in appearance, and so on), no changes in taste or consistency; 2) the following changes are permitted after thermostatic heating: a) titratable acidity not to exceed 2 degrees Ternner; b) QMAFAnM not to exceed 10 CFU/cm <sup>3</sup> (g)					
ultra-pasteurized	100	10.0	100	10.0	25	-

(without aseptic bottling)						
Baked	2.5 x 10 <sup>3</sup>	1.0	25	-	25	-
flavored, enriched with vitamins, macro-, microelements, lactulose, and prebiotics	In conformity with the requirements prescribed for variously heat-treated fluid milk					
in flasks and tanks	2 x 10 <sup>5</sup>	0.01	25	0.1	25	-
Cream and cream-based products, including:						
in retail pack, including pasteurized	1 x 10 <sup>5</sup>	0.1	25	1	25	-
Sterilized	Industrial sterility requirements: 1) after thermostatic heating at a temperature of 37 degrees Celsius for 3-5 days, no visible defects or signs of spoilage (swollen packs, change in appearance, and so on), no changes in taste or consistency; 2) the following changes are permitted after thermostatic heating: a) titratable acidity not to exceed 2 degrees Terner; b) QMAFAnM not to exceed 10 CFU/cm <sup>3</sup> (g)					
Enriched	1 x 10 <sup>5</sup>	0.1	25	1	25	-
Whipped	1 x 10 <sup>5</sup>	0.1	25	0.1	25	-
in flasks, cisterns	2 x 10 <sup>5</sup>	0.01	25	0.1	25	-
Milk, cream, buttermilk and whey beverages, cocktails, kisels; pasteurized milk, cream, buttermilk and whey gelatin, sauces, cremes, puddings, mousses, pastes, soufflés	1 x 10 <sup>5</sup>	0.1	25	1	25	-
2. Fluid fermented milk products, sour cream and products based thereon, including fluid fermented milk products, including						
with a shelf life of up to 72 hours:						
without components	Lactate micro-organisms at least	0.01	25	1	-	-
with components	1 x 10 <sup>7</sup>	0.01	25	1	-	-
with a shelf life of more than 72 hours:						
without components	Lactate micro-organisms at least	0.01	25	1	-	Y-50 <4> M-50
	1 x 10 <sup>7</sup>					
with components		0.01	25	1	-	Y-50 M-50
enriched with bifidobacteria and other probiotic micro-organisms, including yogurt	Bifido-bacteria and (or) other probiotic micro-organisms at least	0.1	25	1	-	Y-50 <4> M-50
	1 x 10 <sup>6</sup>					

	total					
Sour cream and products based thereon, including with components	For sour cream, lactate micro-organisms at least $1 \times 10^7$	0.001 – for sour cream, 0.1 for heat-treated sour cream products	25	1	-	For products with a shelf life of more than 72 hours – Y-100 M-100
Heat-treated cultured dairy and dairy component products, including: without components	-	1.0	25	1	25	Y-50 M-50
with components	-	1.0	25	1	25	Y-50 M-50
3. Curds, curd mass, curd products, products based thereon, including: with a shelf life of up to 72 hours without components	Lactate micro-organisms at least $1 \times 10^6$	0.001	25	0.1	-	Y-50 M-50
with components	-	0.001	25	0.1	-	Y-100 M-50
with a shelf life of more than 72 hours without components	-	0.01	25	0.1	-	Y-100 M-50
with components	-	0.01	25	0.1	-	Y-100 M-50
frozen	*	0.01	25	-	-	Y-100 M-50
Heat-treated curd products, including with components	-	0.1	25	1	-	50 total
4. Albumin mass from milk whey, products based thereon, except ones made by culturing	$2 \times 10^5$	0.1	25	0.1	-	Y-100 M-50
5. Milk, cream, butter-milk, dairy products, dairy component products based thereon, concentrated and evaporated products, dairy and dairy component canned goods, including:						
evaporated, concentrated milk, evaporated, sterilized cream, dairy products, dairy component products, evaporated products	Industrial sterility requirements: 1) after thermostatic heating at a temperature of 37 degrees Celsius for 3-5 days, no visible defects or signs of spoilage (swollen packs, change in appearance, and so on), no changes in taste or consistency; 2) the following changes are permitted after thermostatic heating: a) titratable acidity not to exceed 2 degrees Ternier; b) QMAFAnM not to exceed 10 CFU/cm <sup>3</sup> (g) 3) additional requirement for children's products – no yeast, fungus or lactate microorganism samples when culturing					
milk, cream condensed with sugar in retail pack, including: without components	$2 \times 10^4$	1.0	25	-	-	-
with components	$2 \times 10^4$	1.0	25	-	-	-

milk, cream condensed with sugar in shipping container	4 x 10 <sup>4</sup>	1.0	25	-	-	-
buttermilk, whey condensed with and without sugar	5 x 10 <sup>4</sup>	1.0	25	-	-	-
natural cocoa, coffee with condensed milk or cream with sugar	3.5 x 10 <sup>4</sup>	1.0	25	-	-	-
6. dry, sublimated dairy, dairy component products (milk, cream, fermented products, beverages, ice cream mixes, whey, butter-milk, skim milk), including:	5 x 10 <sup>4</sup>	0.1	25	1	-	-
dry whole cow's milk	5 x 10 <sup>4</sup>	0.1	25	1	-	-
dry skim milk: for direct consumption	5 x 10 <sup>4</sup>	0.1	25	1	-	-
for industrial processing	1 x 10 <sup>5</sup>	0.1	25	1	-	-
dry dairy beverages	1 x 10 <sup>5</sup>	0.01	25	1	-	M-50
dry cream and dry cream with sugar	7 x 10 <sup>4</sup>	0.1	25	1	-	-
dry milk whey	1 x 10 <sup>5</sup>	0.1	25	1	25	Y-50 M-100
dry ice cream mixes	5 x 10 <sup>4</sup>	0.1	25	1	-	-
dry fermented milk products	1 x 10 <sup>5</sup>	0.1	25	1	-	Y-50 M-100
buttermilk, whole milk substitute (dry)	5 x 10 <sup>4</sup>	0.1	25	1	-	Y-50 M-100
7. dry milk protein concentrates, casein, milk sugar, caseinates, milk protein hydrolyzates, including:						
edible caseinates	5 x 10 <sup>4</sup>	0.1	25	-	-	-
whey protein concentrate	5 x 10 <sup>4</sup>	1.0	25	1.0	-	-
albumin and casein concentrate	2.5 x 10 <sup>3</sup>	1.0	25	1	-	-
milk protein, caseins	1 x 10 <sup>4</sup> sulfite-reducing clostridia in 0.01 g not allowed	1.0	50	1	-	Y-10 M-50
refined milk sugar	1 x 10 <sup>3</sup>	1.0	25	1	-	Y-50 M-100
edible milk sugar (edible lactose)	1 x 10 <sup>4</sup>	1.0	25	1	-	Y-50 M-100
lactulose concentrate	1 x 10 <sup>3</sup>	1.0	50	1	-	Y-50 M-100
8. Cheese, cheese products (extra-hard, hard, medium-hard, soft), processed, whey-albumin, dry, cheese pastes, sauces, including:						
cheese, cheese products (extra-hard, hard, medium-hard, soft):						

without components	-	0.001	25	0.001	25	-
with components	-	0.001	25	0.001	25	-
processed cheese:						
without components	$5 \times 10^3$	0.1	25	-	-	Y-50 M-50
with components	$1 \times 10^4$	0.1	25	-	-	Y-100 M-100
processed cheese products	$1 \times 10^4$	0.1	25	-	-	Y-100 M-100
cheese sauces, pastes	$1 \times 10^4$	0.1	25	-	-	-
dry cheese, cheese products	$5 \times 10^4$	1.0	25	-	-	-
smoked cheese, cheese products, whey-albumin cheese	$1 \times 10^4$	0.1	25	-	-	
9. Butter, cow's milk butter paste, milk fat, including:	Not controlled in cultured butter					
cow's milk butter: creamy (sweet-cream, sour-cream, salted, unsalted), including:						
without components	$1 \times 10^5$	0.01	25	0.1	25	100 total
with components	$1 \times 10^5$	0.01	25	0.1	25	Y-100 M-100
branded, including Vologda	$1 \times 10^4$	0.1	25	-	25	M-50
sterilized	Industrial sterility requirements: 1) after thermostatic heating at a temperature of 37 degrees Celsius for 3-5 days, no visible defects or signs of spoilage (swollen packs, change in appearance, and so on), no changes in taste or consistency; 2) the following changes are permitted after thermostatic heating: a) fat phase acidity not to exceed 0.5 degrees Kettstofer; b) titratable acidity not to exceed 2 degrees Ternier; b) QMAFAnM not to exceed 100 CFU/cm <sup>3</sup> (g)					
rendered butter	$1 \times 10^3$	1.0	25			M-200
dry butter	$1 \times 10^5$	0.01	25	0.1	25	100 total
milk fat	$1 \times 10^3$	1.0	25			M-200
butter paste, including:						
without components	$2 \times 10^5$	0.01	25	0.1	25	Y-100 M-100
with components	$2 \times 10^5$	0.001	25	0.1	25	Y-100 M-100
10. Spread, rendered mixture	$1 \times 10^5$	0.01	25	0.1	25	Y-100 M-100
11. milk, creamy ice cream, plombier, with vegetable oil, tortes, pastries, deserts made from ice cream, mixes, ice cream glazes:						
hardened ice cream, including with components	$1 \times 10^5$	0.01	25	1	25	-
soft ice cream, including with components	$1 \times 10^5$	0.1	25	1	25	-
fluid soft ice cream mixes	$3 \times 10^4$	0.1	25	1	25	-
12. ferments (starter and probiotic microorganisms)						

for making fermented milk products, cultured butter and cheese), including:						
sybiotic (fluid) kefir starters	$1 \times 10^8$	3.0	100	10	-	M-5
pure culture starters (including fluid starters)	$1 \times 10^8$ For concentrated starters at least $1 \times 10^{10}$	10.0	100	10	-	5 total
frozen, dry	$1 \times 10^9$ For concentrated starters at least $1 \times 10^{10}$	1.0	10	1	-	5 total
13. enzyme preparations, including:						
animal origin milk-clotting	$1 \times 10^4$	1.0 E. coli in 25	25 sulfite-reducing clostridia in 0.01 g	-	-	-
vegetable origin	$5 \times 10^4$	1.0	25	-	-	-
microbial origin	$5 \times 10^4$ Must not contain viable forms of ferment producers	1.0	25	-	-	-
14. Dry, milk-based culture media for cultivating starter and probiotic microflora	$5 \times 10^4$	0.01	25 sulfite-reducing clostridia in 0.01 g	-	-	-
15. Milk-containing products	The requirements factor in the content and ratio of dairy and nondairy components in the product					

<1> QMAFAnM - quantity of mesophilic aerobic and facultative anaerobic microorganisms.

<2> KOE – colony-forming units.

<3> CGB – Escherichia coli group bacteria.

<4> Yeast presence at the end of shelf life, at least  $1 \times 10^4$  for ayran and kefir, at least  $1 \times 10^5$  for kumiss; it is allowed for yeast to be present in products made using it in the starter.

Notes. 1. Health standards for products' microbiological safety parameters and nutritional value include the following groups of microorganisms:

1) health-indicative, to which pertain the number of mesophilic aerobic microorganism colonies and facultative anaerobic microorganisms (QMAFAnM), Escherichia coli group bacteria – CGB (coliforms), bacteria of the family Enterobacteriaceae and Enterococcus;

2) opportunistic microorganisms, to which pertain bacteria of genus E. coli, Staphylococcus aureus, Proteus, B. cereus, sulfite-reducing clostridia, and Vibrio parahaemolyticus;

3) pathogenic microorganisms, including salmonella and Listeria monocytogenes, and bacteria genus Yersinia;

4) spoilage microorganisms – yeasts, mold fungi, lactate microorganisms;

5) starter microflora microorganisms and probiotic microorganisms (lactate microorganisms, propionate microorganisms, yeasts, bifidobacteria, acidophilic bacteria, and others) – in products with a controlled level of biotechnological microflora and in probiotic products.

2. The microbiological parameters of food products shall be controlled for most groups of microorganisms based on the alternative principle – standards are introduced for the mass of a product in which are not allowed E. coli groups, most opportunistic microorganisms, as well as pathogenic microorganisms, including salmonella and Listeria monocytogenes. In other cases, the standard shall be the number of colony-forming units in 1 g (ml) of the product (CFU/g, ml).

3. In the production of cheese with short-term ageing, the absence of Staphylococcus aureus shall be enterotoxins verified.

Addendum 5  
to the Federal Law on  
"Technical Regulations  
for Milk and Milk Products"

**ALLOWABLE LEVELS  
OF OXIDATIVE SPOILAGE AND POTENTIALLY DANGEROUS  
SUBSTANCES IN DAIRY BABY FOOD PRODUCTS**

Product	Potentially Dangerous Substances and Oxidative Spoilage Parameters	Allowable Levels, mg/kg (L), not to exceed (for dry products in reconstituted product equivalent)
All dairy products	Antibiotics: Levomitsetin Tetracycline Group Penicillin Streptomitsin Mycotoxins: Aflatoxin M1 Radionucleids (in ready-to-use product equivalent): Caesium-137 Strontium-90	Not allowed Not allowed Not allowed Not allowed  not to exceed 0.00002  40 Bq/L 25 Bq/L
Adapted infant formula, partially adapted dairy mixes, including follow-up formulas (dry, fluid, fresh and fermented), sterilized milk, including vitamin-enriched, pasteurized milk, sterilized cream, fluid fermented milk products, including with horticultural components, dry milk for children's food, dry and fluid dairy beverages, low-lactose and lactose-free products	Oxidative spoilage parameter  Toxic elements: Lead Arsenic Cadmium Mercury Pesticides (in fat equivalent): Hexachlorocyclohexane (alpha-, beta-, gamma-isomers) DDT <1> and its metabolites	4.0 mmol active oxygen/kg of fat (for dry products)  0.02 0.05 0.02 0.005  0.02  0.01
Adapted formulas	Osomality	290 – 320 mOsm/L
	Acidity	Not to exceed 90 degrees Ternner for fermented milk products
Follow-up mixtures	Osomality	300 – 320 mOsm/L

(formulas)	Acidity	Not to exceed 90 degrees Turner for fermented milk products
Dry milk cereals (milk-based), instant	Toxic elements: Lead Arsenic Cadmium Mercury Mycotoxins: Ochratoxin A Aflatoxin M1 Aflatoxin B1 Deoxinivalenol  Zearalenon	0.06 0.04 0.01 0.006  0.0005 0.00002 0.00015 0.05 (for wheat, barley cereals)  0.005 (for corn, wheat, barley cereals)
	T-2 toxin	0.05
	Pesticides (in fat equivalent):	
	Hexachlorocyclohexane (alpha-, beta-, gamma-isomers)	0.001
	DDT and its metabolites	0.001
	Benzo(a)pyrene	0.2 mkg/g
	Infestation and pollution by grain vermin	Not allowed
	Metallic impurities	$3 \times 10^{-4}$ , %, longest linear measurement of individual particles must not exceed 0.3 mm
Dry milk-based products	Toxic elements: Lead Arsenic Cadmium Mercury Pesticides (in fat equivalent): Hexachlorocyclohexane (alpha-, beta-, gamma-isomers) DDT and its metabolites	0.15 0.15 0.06 0.15  0.05  0.03
Curds, curd products, including with fruit and vegetable components	Oxidative spoilage parameter Acidity  Toxic elements: Lead Arsenic Cadmium Mercury	4.0 mmol active oxygen/kg of fat 100 degrees Turner   0.02 0.15 0.06 0.015
	Pesticides (in fat equivalent): Hexachlorocyclohexane (alpha-, beta-, gamma-isomers) DDT and its metabolites	0.55  0.33

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<1> DDT - dichlor-diphenyl-trichlorethylene, an insecticide.

Addendum 6  
to the Federal Law on  
"Technical Regulations  
for Milk and Milk Products"

ALLOWABLE LEVELS

OF MICROORGANISMS IN MILK BABY FOOD PRODUCTS, INCLUDING  
PRODUCTS MADE IN MILK KITCHENS

Product, Product Group	QMAFAnM, CFU/cm <sup>3</sup> (g), not to exceed	Weight of product (g, cm <sup>3</sup> ), in which are not allowed					Yeast (Y), Mold (M), CFU/cm <sup>3</sup> (g), not to exceed
		CGB (coli-forms)	E. coli	Pathogenic, including salmonella and Listeria monocytogenes	Staphylococcus aureus	B. cereus bacteria, CFU/g	
1	2	3	4	5	6	7	8
Adapted formulas, including:							
Instant, fresh, dry formulas	2 x 10 <sup>3</sup> - for mixes reconstituted at a temperature of 37-50 degrees Celsius, 3 x 10 <sup>3</sup> – for mixes reconstituted at a temperature of 70-85 degrees Celsius. In cultured mixtures: acidophilic microorganisms at least 1 x 10 <sup>7</sup> (when they are used to make the product), bifidobacteria at least 1 x 10 <sup>6</sup> (when they are used to make the product), lactate microorganisms at least 10 x 10 <sup>7</sup>	1.0	10	100	10	100	Y-10 M-50
fluid dairy mixtures made with ultra-pasteurization, with aseptic bottling	Industrial sterility requirements: 1) after thermostatic heating at a temperature of 37 degrees Celsius for 3-5 days, no visible defects or signs of spoilage (swollen packs, change in appearance, and so on), no changes in taste or consistency; no bacterial cells on a microscopic specimen; 2) the following changes are permitted after thermostatic heating: a) titratable acidity not to exceed 2 degrees Terner; b) QMAFAnM not to exceed 10 CFU/cm <sup>3</sup> (g)						
fluid fermented mixtures with aseptic bottling, including with the use of acidophilic	Lactate microorganisms at least 1 x 10 <sup>7</sup> ,	3.0	10	50	10	-	Y-10 M-10

microorganisms or bifidobacteria	acidophilic micro-organisms at least $1 \times 10^7$ (when they are used to make the product), bifidobacteria at least $1 \times 10^6$ (when they are used to make the product)						
Partially adapted dairy mixes, including:							
instant mixes	$2 \times 10^3$ – for mixes reconstituted at a temperature of 37-50 degrees Celsius, $3 \times 10^3$ – for mixes reconstituted at a temperature of 70-85 degrees Celsius	1.0	10	100	10	100	Y-10 M-50
mixtures requiring heat treatment	$2.5 \times 10^4$	1.0	-	50	1.0	200	Y-50 M-100
sterilized adapted formulas made in milk kitchens	$1 \times 10^2$	10.0	10.0	100.0	10.0	-	-
reconstituted pasteurized mixes	500	10.0	10.0	100.0	10.0	20.0	-
sterilized milk, including vitamin-enriched	Industrial sterility requirements: 1) after thermostatic heating at a temperature of 37 degrees Celsius for 3-5 days, no visible defects or signs of spoilage (swollen packs, change in appearance, and so on), no changes in taste or consistency; 2) the following changes are permitted after thermostatic heating: a) titratable acidity not to exceed 2 degrees Turner; b) QMAFAnM not to exceed $10 \text{ CFU/cm}^3$ (g).						
sterilized milk, cream made in milk kitchens, nonaseptic bottling	$1 \times 10^2$	10.0	10.0	100.0	10.0	-	-
Fluid fermented milk products, including with the use of acidophilic microorganisms or bifidobacteria	Lactate micro-organisms at least $1 \times 10^7$ , acidophilic micro-organisms at least $1 \times 10^7$ (when they are used to make the product),	3.0	10.0	50.0	10.0	-	Y-10 M-10 yeast for kefir $1 \times 10^4$

	bifidobacteria at least $1 \times 10^6$ (when they are used to make the product)						
Fermented milk products made in milk kitchens, non-aseptic bottling	Acidophilic micro-organisms, when they are used to make the product, at least $1 \times 10^7$ , bifidobacteria, when they are used to make the product, at least $1 \times 10^6$	3.0	10.0	50.0	10.0	-	-
Curds, curd products	Microflora characteristic of curd starter, no extraneous microflora cells	0.3	1.0	50	1.0	-	Y-10 M-10
Curds, curd products, acidophilic paste, low-lactose protein paste made in milk kitchens	Microflora characteristic of curd starter, no extraneous microflora cells	0.3	-	50	1.0	-	
Calcium-enriched curds made in milk kitchens	100	1.0	-	50	1.0	-	-
Dry milk for children, including:							
instant milk	$2 \times 10^3$ – for mixes reconstituted at a temperature of 37-50 degrees Celsius, $3 \times 10^3$ – for mixes reconstituted at a temperature of 70-85 degrees Celsius	1.0	10	100	10	100	Y-10 M-50
milk requiring heat treatment	$2.5 \times 10^4$	1.0	-	50	1.0	200	Y-50 M-100
Pasteurized milk, including with a shelf life up to 72 hours	$1.5 \times 10^4$	0.1	1.0	50	1.0	25	-
Dry and fluid milk							

beverages for children 6 months to 3 years, including:							
fluid beverages	$1.5 \times 10^4$	0.1	1.0	50	1.0	-	Y-50 M-50
follow-up formulas, including instant formulas	$2 \times 10^3$ – for mixes reconstituted at a temperature of 37-50 degrees Celsius, $3 \times 10^3$ – for mixes reconstituted at 70-85 degrees Celsius	1.0	10	100	10	100	Y-10 M-50
follow-up formulas requiring heat treatment after reconstitution	$2.5 \times 10^4$	1.0	-	50	1.0	-	Y-50 M-100
Dry milk cereals, including:							
instant	$1 \times 10^4$	1.0	-	50	1.0	$2 \times 10^2$	Y-50 M-100
requiring cooking	$5 \times 10^4$	0.1	-	50	-	-	Y-100 M-200
Sterilized, ready-to-use milk cereals	Industrial sterility requirements: 1) after thermostatic heating at a temperature of 37 degrees Celsius for 3-5 days, no visible defects or signs of spoilage (swollen packs, change in appearance, and so on), no changes in taste or consistency; 2) the following changes are permitted after thermostatic heating: a) titratable acidity not to exceed 2 degrees Ternner; b) QMAFAnM not to exceed $10 \text{ CFU/cm}^3$ (g)						
Ready milk cereals made in milk kitchens	$1 \times 10^3$	1.0	-	50	1.0	-	-
Low-lactose and lactose-free products	$2.5 \times 10^4$	1.0	-	100	1.0	200	Y-50 M-100
Dry high protein milk products	$2.5 \times 10^4$	0.3	-	50	1.0	-	Y-50 M-100
Dry milk-based products	-	0.3	-	50	1.0	-	Y-50 M-100
Dry milk for children	$2.5 \times 10^4$	1.0		25	1.0	-	Y-50 M-100

Addendum 7  
to the Federal Law on  
"Technical Regulations  
for Milk and Milk Products"

ALLOWABLE LEVELS  
OF OXIDATIVE SPOILAGE AND POTENTIALLY DANGEROUS SUBSTANCES  
IN DAIRY AND DAIRY-COMPONENT PRODUCTS FOR PRESCHOOL  
AND SCHOOL AGE CHILDREN

Product, Product Group	Potentially Dangerous Substances and Oxidative Spoilage Parameters	Allowable Levels, mg/kg (L), not to exceed (for dry products – in reconstituted product equivalent)
All dairy products	Antibiotics: Levomitsetin Tetracycline Group Penicillin Streptomitsin Mycotoxins: Aflatoxin M1  Radionucleids: Caesium-137 Strontium-90	Not allowed Not allowed Not allowed Not allowed  0.00002, for cheese – 0.00005   40 Bq/L 25 Bq/L
Sterilized, ultra-pasteurized milk, including vitamin-enriched; pasteurized milk; sterilized cream; fluid fermented milk products, including enriched; sour cream; dry milk for children; dry and fluid milk beverages; low-lactose and lactose-free products; condensed milk and cream with sugar; concentrated milk and cream	Oxidative spoilage parameter  Toxic elements: Lead Arsenic Cadmium Mercury Pesticides (in fat equivalent): Hexachlorocyclohexane (alpha-, beta-, gamma-isomers) DDT and its metabolites	4.0 mmol active oxygen/kg of fat for products with fat content of more than 5 g/100 g and products enriched with vegetable oils  0.02 0.05 0.02 0.005  0.02  0.01
Curds and curd products, including those heat-treated after ripening	Oxidative spoilage parameters  Acidity Toxic elements: Lead Arsenic Cadmium Mercury Pesticides (in fat equivalent): Hexachlorocyclohexane (alpha-, beta-, gamma-isomers) DDT and its metabolites	4.0 mmol active oxygen/kg of fat for products with fat content of more than 5 g/100 g and products enriched with vegetable oils 150 degrees Turner  0.02 0.15 0.06 0.015  0.55 0.33
Curds and curd products, including with horticultural components	Toxic elements: Lead Arsenic Cadmium Mercury	0.06 0.15 0.06 0.015
Dry milk cereals requiring cooking	Toxic elements: Lead Arsenic Cadmium Mercury Mycotoxins: Aflatoxin B1 Deoxinivalenol  Zearalenon  T-2 toxins Pesticides (in fat equivalent): Hexachlorocyclohexane (alpha-, beta-,	0.3 0.2 0.06 0.03  0.00015 0.05 (for wheat, barley cereals)  0.005 (for corn, wheat, barley cereals) 0.05  0.01

	gamma-isomers) DDT and its metabolites	0.01
	Benzo(a)pyrene	Not allowed (not to exceed 0.2 mkg/g)
	Infestation and pollution by grain vermin	Not allowed
	Metallic impurities	$3 \times 10^{-4}$ , %, longest linear measurement of individual particles must not exceed 0.3 mm
Cream butter, premium butter paste	Fat phase acidity  Toxic elements: Lead Arsenic Cadmium Mercury Pesticides (in fat equivalent): Hexachlorocyclohexane (alpha-, beta-, gamma-isomers) DDT and its metabolites	2.5 degrees Kettstofer (for butter and paste with components 3.5 degrees Kettstofer)  0.1 0.1 0.03 0.03 0.2 0.2
Cheese, cheese products (hard, medium-hard, soft, pickled) processed cheese, cheese pastes	Toxic elements: Lead Arsenic Cadmium Mercury	0.2 0.15 0.1 0.03
	Pesticides (in fat equivalent): Hexachlorocyclohexane (alpha-, beta-, gamma-isomers) DDT and its metabolites	0.6 0.2
Components of nondairy origin	Must conform to Russian Federation food quality and safety legislation.	

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<1> DDT - dichlor-diphenyl-trichlorethylene, an insecticide.

Addendum 8  
to the Federal Law on  
"Technical Regulations  
for Milk and Milk Products"

ALLOWABLE LEVELS  
OF MICROORGANISMS IN DAIRY AND DAIRY COMPONENT PRODUCTS  
FOR PRESCHOOL AND SCHOOL AGE CHILDREN

Index, Product Group	QMAFAnM <1>, CFU <2> /cm <sup>3</sup> (or CFU <2>/g), not to exceed	Weight of product (g, cm <sup>3</sup> ), in which are not allowed				Yeast (Y), Mold (M), CFU/cm <sup>3</sup> (or CFU/g), not to exceed
		CGB <3> (coli- forms)	Pathogenic, including salmonella	Staphy- lococcus aureus	Listeria mono- cytogenes	
Pasteurized milk in retail container	$1 \times 10^5$	0.01	25	-	-	-

Pasteurized cream in retail container	$1 \times 10^5$	0.01	25	-	-	-
Baked milk	$2.5 \times 10^3$	1.0	25	-	-	-
Sterilized, ultra-pasteurized milk and cream	Must conform to industrial sterility requirements for sterilized, ultra-pasteurized milk and cream in retail container					
Fluid fermented milk products, including yogurt, with shelf life of up to 72 hours	-	0.01	1.0	25	-	-
Fluid fermented milk products, including yogurt, with shelf life of more than 72 hours	Lactate micro-organisms at least $1 \times 10^7$ , not controlled for heat-treated products	0.1	1.0	25	-	Y-5-M-50, except for beverages made with yeast-containing ferments
Fluid fermented milk products enriched with bifidobacteria with a shelf life of more than 72 hours	Fermented micro-organisms at least $1 \times 10^7$ ; bifidobacteria at least $1 \times 10^6$	0.1	1.0	25	-	Y-50 M-50, except for beverages made with yeast-containing ferments
Ryazhenka	-	1.0	1.0	25	-	
Sour cream and products based thereon	For sour cream, lactate micro-organisms at least $1 \times 10^7$	0.001, for heat-treated products – 0.01	1.0	25	-	Y-50 M-50 – for products with a shelf life of more than 72 hours
Cream butter, butter paste, cheese, canned milk	In conformity with the levels prescribed in addendum 4 to the present Federal Law					
Products used to make children's food products:						
dry milk with 25 percent fat mass fraction, dry skim milk	$2.5 \times 10^4$	1.0	1.0	25	-	Y-50 M-100
Milk whey protein concentrate obtained through electrodialysis (ultrafiltration and electrodialysis)	$1 \times 10^4$	1.0	1.0	25	-	Y-10 M-50
carbohydrate-protein concentrate	$1 \times 10^4$	1.0	1.0	50	-	Y-10 M-50
dry carbohydrate-protein module from cheese whey	$2.5 \times 10^4$	1.0	1.0	25	-	Y-10 M-50
dry carbohydrate-protein modules from curd whey	$2.5 \times 10^4$	1.0	1.0	25	-	Y-10 M-50
fluid paracasein concentrate	-	3.0	1.0	25	-	Y-50 M-50
dry paracasein concentrate	-	1.0	1.0	25	-	Y-50 M-50

dry caseocyte	1 x 10 <sup>4</sup>	1.0	1.0	25	-	Y-10 M-50
nonfat dry milk component for dry children's food products	1.5 x 10 <sup>4</sup>	0.3	1.0	25	-	Y-10 M-50
dry milk component with malt extract (for fluid children's food products)	1.5 x 10 <sup>4</sup>	1.0	1.0	25	-	Y-10 M-50
dry milk component carbohydrate-protein concentrate (for fluid children's food products)	2.5 x 10 <sup>4</sup>	1.0	1.0	25	-	Y-50 M-50
nonfat dry milk component with no chemical processing (for dry children's food products)	2.5 x 10 <sup>4</sup>	1.0	1.0	25	-	Y-50 M-50
premium cream butter	1 x 10 <sup>4</sup>	0.1	1.0	25	L. monocytogenes – additionally	M-100
refined milk sugar	1 x 10 <sup>3</sup>	1.0	-	25	-	M-10
edible lactose	1 x 10 <sup>4</sup>	1.0	1.0	25	-	M-100
lactose concentrate	1 x 10 <sup>3</sup>	1.0	-	50	-	M-100
lactulose concentrate	5 x 10 <sup>3</sup>	1.0	1.0	50	-	Y-50 M-100

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- <1> QMAFAnM - quantity of mesophilic aerobic and facultative anaerobic microorganisms.  
 <2> KOE – colony-forming units.  
 <3> CGB – Escherichia coli group bacteria.

Addendum 9  
to the Federal Law on  
"Technical Regulations  
for Milk and Milk Products"

1. Raw Cow's Milk Identification Parameters

Parameter	Values
Fat mass fraction, %	2.8 – 6.0
Protein mass fraction, %	at least 2.8
Dry skim solids mass fraction	at least 8.2
Consistency	Homogeneous fluid with no sediment or flakes
Taste and smell	Clean taste and smell, with no foreign smells or aftertastes extrinsic to fresh natural milk Slight feedy flavor and smell are allowed
Color	White to light cream
Acidity, degrees Terner	16.0 – 21.0
Density, kg/m <sup>3</sup> , at least	1,027.0 (at a temperature of 20 degrees Celsius and with 3.5% fat mass fraction)
Freeze temperature, degrees Celsius (used when adulteration is suspected)	not to exceed 0.520

2. Identification Parameters for Farm Animal  
Raw Milk in a Lot

Animal	Milk constituents, % <1>					Density at 20 degrees Celsius	Acidity, degrees Turner
	fat	protein	lactose	dry solids, average	minerals		
Cow	2.8 – 6.0	2.8 – 3.6	4.7 – 5.6	13.0	0.7	1,027 - 1,030	16.0 - 21.0
Goat	4.1 – 4.3	3.6 – 3.8	4.4 – 4.6	13.4	0.8	1,030	17.0
Sheep	6.2 – 7.2	5.1 – 5.7	4.2 - .6	18.5	0.9	1,034	25.0
Mare	1.8 – 1.9	2.1 – 2.2	5.8 – 6.4	10.7	0.3	1,032	6.5
Camel	3.0 – 5.4	3.8 – 4.0	5.0 – 5.7	15.0	0.7	1,032	17.5
Buffalo Cow	7.5 – 7.7	4.2 – 4.6	4.2 – 4.7	17.5	0.8	1,029	17.0
Jennet	1.2 – 1.4	1.7 – 1.9	6.0 – 6.2	9.9	0.5	1,011	6.0

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 <1> Parameter values for the identification of milk obtained in individual milkings may vary more widely.

Addendum 10  
 to the Federal Law on  
 "Technical Regulations  
 for Milk and Milk Products"

#### RAW CREAM IDENTIFICATION PARAMETERS

Parameter	Values
Fat mass fraction, %	9.0 – 34.0
Acidity, degrees Turner	14.0 – 19.0
Consistency	Uniform homogeneous. Individual clumps of fat allowed
Taste and smell	Pronounced creamy, clean, somewhat sweet taste and smell. Slight feedy smell and taste allowed
Color	White with cream undertone, uniform
Density, kg/m <sup>3</sup>	1,020.0 – 968.0

Addendum 11  
 to the Federal Law on  
 "Technical Regulations  
 for Milk and Milk Products"

#### ORGANOLEPTIC IDENTIFICATION PARAMETERS OF MILK PROCESSING PRODUCTS

Milk Processing Product	Parameters			
	appearance	consistency	taste and smell	color
Fluid milk (whole, standardized, reconstituted, recombined)	Opaque fluid	Fluid homogeneous nonviscous	Characteristic of milk with slight boiling treatment aftertaste. Somewhat sweet aftertaste is allowed	White, for skim milk – blue undertone, and for sterilized milk – light cream undertone are allowed

Fluid cream	Homogeneous opaque fluid	Homogeneous moderately viscous	Characteristic of cream with slight boiling treatment aftertaste. Somewhat salty-sweet aftertaste is allowed	White with cream undertone, uniform throughout, light cream for sterilized cream
Ryazhenka, varenets	Homogeneous fluid, stirred or unstirred, with no gas development		Clean fermented with pronounced pasteurization aftertaste	Light cream uniform
Acidophilin	Homogeneous viscous fluid		Clean fermented slightly tangy taste	Milk white uniform
Kefir, fluid fermented milk products	Homogeneous fluid, stirred or unstirred. Gas development is allowed for products made using yeasts.		Clean, fermented, slightly tangy taste or taste and smell determined by added components. Yeasty aftertaste is allowed for products made using yeasts.	Milk white uniform or determined by added components
Yogurt	Homogeneous, somewhat viscous fluid. Jelly- or cream-like with added stabilizer. With flavoring components when added		Fermented. Somewhat sweet taste when sugar or sweeteners added	Milk white uniform or determined by added components
Curds, curd mass, curd products, curd cheese	Soft spreadable or mealy with or without noticeable particles of milk protein. With flavoring components when added		Clean fermented, dry milk aftertaste allowed. Somewhat sweet when sugar or sweeteners added	White or with cream undertone uniform or determined by added components
Sour cream	Homogeneous viscous mass with glossy surface		Clean fermented. Aftertaste of rendered butter allowed	White with cream undertone, uniform
Ice cream	Portions of single layer or multilayer ice cream of varying form or partially covered with glaze (chocolate) or without glaze (chocolate)	Thick. Homogeneous, with no noticeable clumps of fat, stabilizer or emulsifier, protein or lactose particulates, ice crystals. With flavoring components when added. In glazed ice cream, glaze (chocolate) structure is homogeneous, with no noticeable particles of sugar, cocoa products, dry dairy products, with bits of nuts and wafer crumbs and other components when used	Clean taste, characteristic of the type of ice cream	Characteristic of the type of ice cream, uniform throughout single layer ice cream or throughout each layer of multilayer ice cream. For glazed ice cream, the color of the coating characteristic of the type of glaze

Rendered butter	Granular or thick, homogeneous, in melted form – transparent with no sediment	Taste and smell of rendered milk fat with no extraneous aftertastes or smells	Light yellow to yellow, uniform
Cream butter, butter paste	Thick, uniform, yielding surface that is shiny when cut, dry in appearance. Surface may be slightly shiny or somewhat opaque, with individual minute droplets of moisture, insufficiently thick and yielding, slightly crumbly. Flavoring components present when added	For sweet-cream butter and sweet-cream butter paste – pronounced cream taste and pasteurization aftertaste, with no strange aftertastes and smells. For cultured butter and cultured butter paste – pronounced cream taste with fermented aftertaste, with no strange aftertastes or smells. A whey aftertaste is allowed for whey butter and butter paste. A slight feedy aftertaste and (or) faint aftertastes are allowed for all types of butter and paste: cream, pasteurization, repasteurization and vegetable oil, fermented	Light yellow to yellow, homogeneous, uniform
Dry cheese, cheese product, including processed	Shape of packaging. Powdery or hard, brittle or other consistency	Cheesy, with smell and aftertastes characteristic of a specific brand of cheese	White to yellow
Extra-hard cheese, cheese product	Varying shape. Brittle, granular or other consistency. With no pattern or with holes of varying shapes and in different locations. Flavoring components present when added	Cheesy, varying pronounced sweetish-spicy, characteristic of a specific brand of cheese	Light yellow to yellow
Hard cheese, cheese product	Shape of a bar, cylinder or other random shape. Homogeneous, solid, slightly brittle or other consistency. Large, medium or small holes, or none. Flavoring components present when added	Cheesy, varying pronounced sweetish-spicy, characteristic of a specific brand of cheese	Light yellow to yellow, uniform
Medium-hard cheese, cheese product	Shape of a bar, high or low cylinder, ball, ellipse or other random shape. Homogeneous, pliable, pliant consistency. Medium or small holes of varying shapes and in different locations, or none. Flavoring components present when added	Cheesy, sourish, slightly spicy, varying pronounced tangy, characteristic of a specific brand of cheese, or other taste and smell determined by the addition of flavoring components. When mold or slime is used – taste and smell determined by the type of mold or slime microflora	White to light yellow, uniform, marbled or other. Mold cheese has added streaks of mold. Cheese with surface mold has surface mold present

Soft cheese, cheese product	Shape of a low cylinder or other random shape. Consistency soft pliable, slightly spongy to silky, spreadable, buttery. May be slightly brittle, crumbly. No patterns. Small number of irregularly shaped holes and spaces allowed. Flavoring components present when added		Fermented or cheesy, characteristic of a specific brand of cheese, or other taste and smell determined by the addition of components. When mold or slime is used – taste and smell determined by the type of mold or slime microflora	White to light yellow. Mold cheese has added streaks of mold, cheese with surface mold has surface mold present
Fresh cheese, curd cheese	Shape of packaging. Consistency silky, soft pliable, spreadable, homogeneous throughout. Flavoring components present when added		Clean fermented, with no strange aftertastes or smells, or characteristic of a specific brand of cheese	White to light cream, uniform
Processed chunky cheese, cheese product	Shape of packaging. Consistency solid, slightly spongy to pliable, homogeneous throughout, maintaining shape after cutting. Flavoring components present when added		Clean, characteristic of a specific brand of cheese. Smoked cheese has a smoky aftertaste	White to rich yellow, uniform. Smoked cheese – yellow to light brown. Sweet cheese – white to brown
Processed pastelike cheese, cheese product	Shape of packaging. Consistency soft pliable to silken, spreadable, creamy, homogeneous throughout. Flavoring components present when added		Clean, characteristic of a specific brand of cheese	White to rich yellow, uniform. Sweet cheese – white to brown
Dry milk	Homogeneous powder	Fine dry powder	Clean, typical of fresh pasteurized milk	White with light cream undertone
Dry cream	Homogenous powder	Fine dry powder	Clean, typical of fresh pasteurized cream	White with light cream undertone
Concentrated milk, cream	Homogeneous fluid	Homogeneous, somewhat viscous fluid	Salty-sweet taste typical of baked milk	Light cream
Condensed milk, cream with sugar	Viscous homogeneous mass	Homogeneous, viscous throughout with no noticeable milk sugar crystals. Chalky consistency and negligible amount of lactose sediment allowed on the container bottom during storage	Clean, sweet, with pronounced pasteurized milk taste. For condensed milk with sugar that is additionally heat-treated – caramel aftertaste. Slight feedy aftertaste allowed	White with cream undertone, uniform. Brown when heat-treated or made with coffee or cocoa
Whey	Transparent or semi-transparent fluid	Fluid, homogeneous	Characteristic for whey, for curd whey - sourish taste, for cheese whey - slightly sweet or salty taste	Pale green
Buttermilk	Opaque fluid with no sediment or flakes	Fluid, homogeneous	Characteristic for sour buttermilk – fermented taste. Pasteurization aftertaste or slightly feedy aftertaste allowed	From white to pale yellow

Casein	Homogeneous powder or crystalline substance	Powder or dry solid or porous grain of any shape	Without sugar, neutral taste	White to light cream
Lactulose	Crystalline substance	Fine crystals of homogeneous shape	No smell, sweet taste	White
Lactulose concentrate	Homogeneous viscous fluid	Homogeneous, viscous	Taste slight sweet to sweet-sour. Caramelization aftertaste and smell allowed	Light yellow to dark yellow
Cream-vegetable spread	Pliable homogeneous, solid or soft consistency, surface opaque or slightly shiny, dry in appearance		Creamy, sweet-cream or sour-cream taste	White to light yellow, homogeneous
Cream-vegetable rendered mixture	Granular or homogeneous (solid or soft)		Taste and smell or rendered milk fat	Light yellow to yellow, homogeneous
Dairy, dairy component products, milk-containing products	In conformity with the description provided by the producer, and with the taste, color and (or) smell determined by added flavoring components and the use of glazes or other food products			

Addendum 12  
to the Federal Law on  
"Technical Regulations  
for Milk and Milk Products"

PHYSIOCHEMICAL AND MICROBIOLOGICAL IDENTIFICATION PARAMETERS  
OF MILK PROCESSING PRODUCTS

1. Fluid Milk, Cream, Fermented Milk Products,  
Evaporated Milk Processing Products, Dry Milk  
Processing Products

Milk Processing Product	Parameters			
	mass fraction range, %			lactate microorganisms, probiotic microorganisms, yeast at the end of shelf life
	fat	protein, at least	RSMS <1>, at least	
1	2	3	4	5
Fluid milk	0.1 – 8.9	2.8	8.2	-
Milk cocktails, beverages, jelly, puddings, mousses, pastes, soufflé	0.1 – 9.5			-
Cream, including high fat	9.0 – 34.0	2.2	5.6	-
	35.0 – 58.0	1.2	3.6	-
Fermented milk products, except yogurt, sour cream, curds, including products with bifidobacteria and other probiotic microorganisms	0.1 – 8.9	2.8	7.8 – 9.5	lactate microorganisms – at least $1 \times 10^7$ CFU. For products enriched with bifidobacteria and other probiotic microorganisms, including yogurt, bifidobacteria and (or) other probiotic
Yogurt	0.1 – 10.0	3.2,	9.5,	

		with addition of components – 2.8	with addition of components – 8.5	microorganisms – at least $1 \times 10^6$ CFU Yeast at the end of shelf life for ayran – at least: - $1 \times 10^4$ , for kumiss – $1 \times 10^5$ CFU
Sour cream, products based thereon	9.0 – 58.0	1.2	3.6	lactate microorganisms for sour cream – at least $1 \times 10^7$ CFU
Curd products, curd mass	0.1 – 35.0	8.0	13.5	-
Sterilized evaporated milk, including with sugar	1.0 – 16.0	7.0	11.5	-
	1.0 – 16.0	7.0	14.0	-
Sterilized concentrated milk	7.0 – 9.5	6.0	16.0	-
Sterilized cream	25.0	2.6	5.3	-
Condensed cream with sugar	19.0 – 20.0	8.0	18.0	-
Dry milk	1.0 – 26.0	16.0	69.0	-
Dry cream, including high fat	42.0 – 45.0	20.0	53.0	-
	75.0 – 80.0	10.0	15.0	-

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<1> RSMS – residual skim milk solids.

## 2. Cow's Milk Butter and Butter Paste

	Mass fraction, %			Titratable acidity of product's milk plasma, degrees Terner		Fat phase acidity, degrees Kettstofer, not to exceed
	fat	moisture	salt	sweet-cream	sour-cream	
Baked milk	at least 99.0	not to exceed 1.0	-			4.0
Cream butter, including:						
sweet-cream and sour cream with classic fat content:	80.0 – 85.0 incl.	18.5 – 14.0	-	not to exceed 26.0	40.0 – 65.0	4.0
salted	80.0 – 85.0 incl.	17.5 – 13.0	1.0			
reduced fat sweet-cream and sour-cream:	50.0 – 79.0 incl.	46.0 – 19.5	-	30.0	40.0 – 65.0	4.0
salted	50.0 – 79.0 incl.	45.0 – 18.5	1.0	30.0		
Sweet-cream and sour-cream butter paste:	39.0 – 49.0	56.0 – 47.0	-	33.0	40.0 – 65.0	4.0
salted	39.0 – 49.0	55.0 – 46.0	1.0			

3. Cream-Vegetable Spread,  
Cream-Vegetable Rendered Mixture

Products	Total fat mass fraction, %	Milk fat mass fraction in fat phase, %	Linoleic acid mass fraction in fat extracted from the product, %	Trans-isomers of oleic acid mass fraction in fat separated from the product, in methylelaidate equivalent,%	Fat melting temperature, °C, not to exceed
Cream-vegetable spread	39 - 95	at least 50	10.0 - 35.0	8.0	36
Cream-vegetable rendered mixture	at least 99	at least 50	10.0 - 35.0	8.0	36

4. Cheese, Cheese Product <1>

Products	Mass fraction, %, of			
	moisture	moisture in skim solid	fat in dry solid	salt
Dry cheese, cheese product	2.0 – 10.0	less than 51.0	4.0 – 40.0 incl.	2.0 – 6.0
Extra-hard cheese, cheese product	30.0 – 35.0	less than 51.0	1.0 – 60.0 and higher	1.0 – 3.0 incl.
Hard cheese, cheese product	40.0 – 42.0	49.0 – 56.0 incl.	1.0 – 60.0 and higher	0.5 – 2.5 incl.
Medium-hard cheese, cheese product	36.0 – 55.0	54.0 – 69.0 incl.	1.0 – 60.0 and higher	0.5 – 4.0 incl.
Soft cheese, cheese product, including fresh cheese, curd cheese	30.0 – 80.0	higher than 67.0	1.0 – 60.0 and higher	0.4 – 5.0 incl., for pickled cheese 5.0 – 7.0 incl., for fresh and curd cheese 0.0 – 5.0

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<1> Protein mass fraction in cheese whose fat mass fraction is more than 36 percent must be at least 16 percent.

5. Processed Cheese <1>

Product	Mass fraction, %, of			
	fat in dry solid	moisture	salt (except sweet cheese)	sucrose (for sweet cheese)
Chunk processed cheese	up to 54.0 incl.	35.0 – 70.0 incl.	0.2 – 4.0 incl.	up to 30.0 incl.
Pastelike processed cheese	20.0 – 70.0 incl.	35.0 – 70.0 incl.	0.2 – 4.0 incl.	
Dry processed cheese	up to 51.0 incl.	3.0 – 7.0 incl.	2.0 – 5.0 incl.	

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<1> Protein mass fraction in cheese whose fat mass fraction is more than 36 percent must be at least 16 percent.

6. Ice Cream

Types	Mass fraction, %, of	Mass fraction, %, at least	Acidity <3>, %	Overrun, %
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	milk fat	RSMS <1>	sucrose or total sugar (other than lactose)	dry solids	degrees Ternier, not to exceed	
Plombier	12.0 – 20.0	7.0 – 10.0	14.0	36	21	40 - 130
Creamy Milk	8.0 – 11.5	7.0 - 11,0	14.0	32	22	40 - 110
Milk	not to exceed 7.5	7.0 – 11.5	14.5	28	23	40 - 90
Sour milk	not to exceed 7.5	7.0 – 11.5	17.0	28	90	40 - 90
With vegetable oil	not to exceed 12.0 <2>	7.0 – 11.0	14.0	29	22	40 - 110

<1> RSMS – residual skim milk solids.

<2> Vegetable oil or a mixture of vegetable oil and milk fat.

<3> Acidity of ice cream with crème brulee, chocolate, egg, egg white, and egg yoke flavoring must not exceed 24 degrees Ternier for plombier, 25 degrees Ternier for creamy ice cream, and 26 degrees Ternier for milk ice cream. The content level of lactate microorganisms in sour milk ice cream shall be at least  $1 \times 10^6$ .

Addendum 13  
to the Federal Law on  
"Technical Regulations  
for Milk and Milk Products"

#### PHYSIOCHEMICAL IDENTIFICATION PARAMETERS OF MILK-BASED BABY FOOD PRODUCTS

##### 1. Dry, Fluid, Fresh, and Fermented Adapted Formulas for Infants from Birth to Five Months (per 100 ml of ready-to-use product)

Criteria and Parameters	Units of Measurement	Allowable Levels	
		controlled	labeled
Protein	g	1.2 – 1.7	+
Milk whey proteins	percentage of total protein, at least	50	+
Fat	g	3.0 – 4.0	+
Linoleic acid	percentage of total fatty acids	14 – 20	+
	mg	400 - 800	
Alpha-tocopherol/polyunsaturated fatty acids ratio		1 - 2	
Carbohydrates	g	6.5 – 8.0	+
Lactose	percentage of total carbohydrates	at least 65	+
Casein	same	40 - 50	+
Taurine	mg	4 - 6	+
Caloric value	Kcal/L	640 - 700	

##### 2. Dry, Fluid, Fresh, and Fermented Follow-up Formulas for Babies Over the Age of Six Months (per 100 ml of ready-to-use product)

Criteria and Parameters	Units of Measurement	Allowable Levels	Obligation of
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			Labeling
Protein	g	1.5 – 1.8	+
Milk whey proteins	percentage of total protein, at least	40	
Fat	g	2.5 – 4.0	+
Linoleic Acid	percentage of total fatty acids	14 – 20	+
	mg	400 - 800	
Same	g	0.35 – 0.8	-
Carbohydrates	g	7.0 – 9.0	+
Lactose	percentage of total carbohydrates, at least	65	+
Caloric value	Kcal/L	640 – 750	+

#### Notes

1. The composition of adapted formula proteins must approximate as closely as possible the composition of women's milk proteins.
2. Sesame oil and cottonseed oil must not be used in adapted formula fat.
3. Trans-isomer content must not exceed 3 percent of total fat content.
4. Myristic and lauric acid content must not exceed 20 percent of total fat content.
5. The linoleic acid to alpha-tocopherol acid ratio must be less than 5 and more than 15.
6. The content of long chain fatty acids used to enrich formulas must not exceed 1 percent of total fat for w-3 long chain polyunsaturated fatty acids and 2 percent for w-6 long chain polyunsaturated fatty acids.
7. Eicosapentaenoic acid content must not exceed docosahexaenoic acid content.
8. Sucrose and (or) fructose content or their total must not exceed 20 percent of total carbohydrate content.
9. Maltodextrin and maltose may be used in addition to lactose.

#### 3. Partially Adapted Formulas (Dry, Fluid, Fresh and Fermented) for Children Over the Age of Six Months (per 100 ml of ready-to-use product)

Criteria and Parameters	Units of Measurement	Allowable Levels	Obligation of Labeling
Protein	g	1.5 – 2.4	+
Milk whey proteins	Percentage of total protein	20 - 50	
Fat	g	2.5 – 4.0	+
Linoleic acid	Percentage of total fatty acids, at least	14	
	g, at least	400	
Carbohydrates	g	6.0 – 9.0	+
Caloric value	kcal/L	520 - 820	+

#### 4. Supplemental Feeding Products for Infants (per 100 ml of ready-to-use product)

Criteria and Parameters	Units of Measurement	Allowable Levels	Obligation of Labeling
Sterilized, ultra-pasteurized milk, including vitamin-enriched and pasteurized			
Protein	g	2.8 – 3.2	+
Fat	g	2.5 – 4.0 2.0 – for prophylactic feeding	+
Minerals			
Calcium	mg	115 – 140	+
Fluid fermented milk products, including with horticultural fillers			
Protein	g	2.0 – 3.2 not to exceed 4.0 – for	+

		prophylactic feeding	
Fat	g	2.5 – 4.0 at least 2.0 – for prophylactic feeding	+
Carbohydrates, including sugar	g	4 – 12, 10	+
Caloric value	Kcal	45 – 106	
Ash	g	0.5 – 0.8	
Calcium	mg	60 - 150	+
Acidity	Degrees Ternier, not to exceed	100	-
Curds and curd goods, including with fruit or vegetable fillers			
Protein	g	7 – 17	+
Fat	g	3.0 – 15	+
Carbohydrates, including sugar	g, not to exceed	12, 10	
Caloric value	Kcal	102 – 250	
Minerals			
Calcium	mg	120 – 200	+
Acidity	degrees Ternier, not to exceed	150	-
Dry milk			
Milk protein	g	2.8 – 3.2	+
Fat	g	2.5 – 4.0	+
Minerals			
Calcium	mg	115 – 140	-
Dry and fluid dairy beverages			
Protein	g	2.0 – 5.2	+
Fat	g	1.0 – 4.0	+
Carbohydrates, including sugar	g	7.0 – 12.0 6.0	
Minerals			
Calcium	mg	105 - 240	+
Milk-based dry cereals requiring cooking			
Moisture	g, not to exceed	8	+
Protein	g	12 - 20	+
Fat	g	10 - 18	+
Carbohydrates, including sugar	g, not to exceed	60 – 70 20	+
Instant dry milk cereals			
Protein	g	12 - 20	+
	g, at least – in cereals that need to be reconstituted with whole or partially diluted cow's milk	7	+
Fat	g, at least	10 – 18	+
	g, at least – in cereals that need to be reconstituted with whole milk whose mass fraction is less than 25 percent, provided dairy butter or vegetable oil is added to the reconstituted cereal	5.0	
	g, at least – in cereals that need to be reconstituted with skim milk, provided they are	0.5	

	reconstituted with whole milk or that dairy butter or vegetable oil is added to the reconstituted cereal		
Carbohydrates, including sugar	g	60 – 70, 20	+

Addendum 14  
to the Federal Law on  
"Technical Regulations  
for Milk and Milk Products"

**PHYSIOCHEMICAL IDENTIFICATION PARAMETERS  
OF MILK-BASED FOOD PRODUCTS FOR PRESCHOOL AND SCHOOL AGE CHILDREN**

**1. Fluid Milk, Fluid Cream, Fermented Milk Products,  
Including Yogurt and Milk-Based Beverages  
(Heat-treated Dry and Fluid Milk and Cream)  
(per 100 ml of ready-to-use product)**

Criteria and Parameters	Units of Measurement	Allowable Levels	Obligation of Labeling
Protein			+
milk, fermented milk products	g	2.0 – 5.0	+
cream	g	2.7	+
Fat			+
milk, fermented milk products	g	1.5 – 4.0	
Cream	g	10 - 20	+
Carbohydrates			
milk, fermented milk products	g, not to exceed	5.0 – 10.5, including sugar - 10	+
cream		10.1 – 19.9	+
Minerals			
calcium	mg	105 - 240	+ for enriched products

**2. Hard, Medium-Hard, Soft, Pickled, and Processed Cheese  
for Preschool and School Age Children  
(per 100 ml of ready-to-use product)**

Criteria and Parameters	Units of Measurement	Allowable Levels	Obligation of Labeling
Moisture mass fraction	Percent, not to exceed	60	
Fat mass fraction in dry solid	Percent, not to exceed	50	+
Salt	g, not to exceed	2	

**3. Special-Purpose Products  
for Infant Nutritional Therapy  
(per 100 ml of ready-to-use product)**

Criteria and Parameters	Units of Measurement	Allowable Levels	Obligation of Labeling
Low-Lactose and Lactose-Free Products			

Protein	g	1.2 – 2.0	+
Taurine	mg	4.0 – 5.0	
L-carnitine	mg	1.0 – 1.5	
Fat	g	3.0 – 4.0	+
Linoleic Acid	Percent of total fatty acids	14 - 20	
	mg	400 - 800	
Carbohydrates	g	6.5 – 8.0	+
Dextrin-Maltose	g	5.0 – 6.0	
Lactose	g, not to exceed	1.0	In low-lactose products
	g	0.01	In lactose-free products
Caloric value	Kcal/L	640 - 700	

Addendum 15  
to the Federal Law on  
"Technical Regulations  
for Milk and Milk Products"

FORMS OF MINERALS AND VITAMINS  
PERMITTED FOR THE PRODUCTION OF MILK-BASED BABY FOOD PRODUCTS

Name	Form
Minerals	
Calcium	Calcium carbonate (E 170) Trisubstituted calcium citrate (E 333) Disubstituted calcium citrate (E 345) Calcium gluconate (E 578) Calcium glycerophosphate (E 383) Calcium lactate (E 327) Calcium orthophosphate (E 341)
Sodium	Sodium citrate Sodium chloride (E 331)
Magnesium	Magnesium carbonate (E 504) Magnesium chloride (E 511) Magnesium gluconate (E 580) Magnesium salts of orthophosphoric acid (E 343) Magnesium sulfate (E 518) Magnesium lactate (E 329)
Potassium	Potassium citrate (E 332) Potassium lactate (E 326) Disubstituted potassium phosphate (GOST 2493)
Iron	Iron (II) gluconate (E 579) Iron (II) sulfate 7-hydrate (GOST 4148) Iron (II) lactate (E 585) Iron (II) fumarate Iron (II) diphosphate (pyrophosphate) Elemental iron
Copper	Copper carbonate Copper citrate Copper gluconate Copper sulfate (E 519)
Zinc	Zinc acetate Zinc sulfate Zinc chloride Zinc lactate
Manganese	Manganese carbonate

	Manganese chloride Manganese citrate Manganese gluconate Manganese sulfate
Iodine	Potassium iodide and iodocasein are only used to make fluid milk for children over two years of age
Selenium	Sodium selenite
Vitamins	
Retinol (A)	Retinol acetate Retinol palmitate Beta carotene
Calciferol (D)	D2 ergocalciferol D3 ergocalciferol
Tocopherol (E)	D-tocopherol DL – alpha-tocopherol D-alpha-tocopheryl acetate
Thiamine (B1)	Thiamine hydrochloride Thiamine bromide Thiamine mononitrate Thiamine chloride
Riboflavin (B2)	Riboflavin Riboflavin-5-sodium phosphate
Niacin (PP)	Nicotinamide Nicotinic acid
Pyridoxine (B6)	Pyridoxine hydrochloride Pyridoxine-5-phosphate Pyridoxine dipalmitate
Pantothenic acid	Calcium D-Pantothenate Sodium D-Pantothenate Dexpanthenol
Cyanocobalamin (B 12)	Cyanocobalamin Hydroxocobalamin
Folic acid (Bc)	Folic acid
Ascorbic acid (C)	L-ascorbic acid Sodium L-ascorbate Calcium L-ascorbate 6-palmitoyl-L-ascorbic acid (ascorbyl palmitate) Potassium ascorbate
Vitamin K	Phylloquinone (phytomenadione)
Biotin	D-biotin
Choline	Choline chloride Choline citrate Choline bitartrate
Inositol	Inositol preparation
Carnitine	L-carnitine L-carnitine hydrochloride

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Addendum 16  
to the Federal Law on  
"Technical Regulations  
for Milk and Milk Products"

ALLOWABLE LEVELS OF MINERALS AND VITAMINS  
IN FLUID DAIRY AND DAIRY COMPONENT BABY FOOD PRODUCTS

Name	Units of Measurement	Parameter	Obligation of Labeling
Adapted formulas			

Minerals			
Calcium	mg/L	330 - 700	+
Phosphorus	mg/L	150 - 400	+
Calcium/phosphorus	ratio	1.2 – 2.0	
Potassium	mg/L	400 - 800	+
Sodium	mg/L	150 - 300	+
Potassium/sodium	ratio	2.5 - 3	
Magnesium	mg/L	30 - 90	+
Copper	mkg/L	300 - 600	+
Manganese	mkg/L	10 - 300	+
Iron	mg/L	3 - 8	+
Zinc	mg/L	3 - 10	+
Chlorides	mg/L	300 - 800	+
Iodine	mkg/L	50 - 150	+
Selenium	mkg/L	10 - 40	+
Ash	g/L	2.5 - 4	-
Vitamins			
Retinol (A)	mkg-equiv/L	400 - 1000	+
Tocopherol (E)	mg/L	4 - 12	+
Calciferol (D)	mkg/L	7.5 – 12.5	+
Vitamin K	mkg/L	25 - 60	+
Thiamine (B1)	mkg/L	400 – 1,000	+
Riboflavin (B2)	mkg/L	500 – 1,500	+
Pantothenic acid	mkg/L	2,700 – 5,000	+
Pyridoxine (B6)	mkg/L	300 – 1,000	+
Niacin (PP)	mkg/L	2,000 – 10,000	+
Folic acid (Bc)	mkg/L	60 - 150	+
Cyanocobalamin (B12)	mkg/L	1.0 – 3.0	+
Ascorbic acid (C)	mg/L	55 - 150	+
Inosite	mg/L	20 - 60	+
Choline	mg/L	50 - 150	+
Biotin	mkg/L	10 - 40	+
L-carnitine	mg/L	10 - 20	+
Nucleotide (total cytidine-, uridine-, adenosine-, guanosine- and inosine-5 monophosphates)	mg/L, not to exceed	35	+
Follow-up formulas, adapted for babies over the age of six months			
Minerals			
Calcium	mg/L	400 - 800	+
Phosphorus	mg/L	200 - 400	+
Calcium/phosphorus	ratio	1.2 – 2.0	
Potassium	mg/L	500 - 900	+
Sodium	mg/L	150 - 300	+
Potassium/sodium	ratio	2 - 3	+
Magnesium	mg/L	50 - 100	+
Copper	mkg/L	400 – 1,000	+
Manganese	mg/L	10 - 300	+
Iron	mg/L	7 - 14	+
Zinc	mg/L	4 - 10	+
Chlorides	mg/L	300 - 800	+
Iodine	mkg/L	50 - 150	+
Selenium	mkg/L	10 - 40	+
Ash	g/L	2.5 - 5	-
Vitamins			
Retinol (A)	mkg-equiv/L	400 - 800	+

Tocopherol (E)	mg/L	4 - 12	+
Calciferol (D)	mkg/L	8 – 12.5	+
Vitamin K	mkg/L	25 - 60	+
Thiamine (B1)	mkg/L	400 – 1,000	+
Riboflavin (B2)	mkg/L	600 – 1,500	+
Pantothenic acid	mkg/L	3,000 – 5,000	+
Pyridoxine (B6)	mkg/L	400 – 1,000	+
Niacin (PP)	mkg/L	3,000 – 10,000	+
Folic acid (Bc)	mkg/L	60 - 150	+
Cyanocobalamin (B12)	mkg/L	1 – 3.0	+
Ascorbic acid (C)	mg/L	55 - 150	+
Choline	mg/L	50 - 150	+
Biotin	mkg/L	10 - 40	+
Inosite	mg/L	20 - 60	+
L-carnitine	mg/L	10 - 20	+
Nucleotide (total cytidine-, uridine-, adenosine-, guanosine- and inosine-5 monophosphates)	mg/L, not to exceed	35	+
Follow-up formulas, partially adapted			
Minerals			
Calcium	mg/L	600 - 900	+
Phosphorus	mg/L	200 - 600	+
Calcium/phosphorus	ratio	1.2 – 2.0	
Potassium	mg/L	400 – 1,000	+
Sodium	mg/L	250 - 350	+
Magnesium	mg/L	50 - 100	+
Copper	mkg/L	400 - 1000	+
Manganese	mkg/L	10 - 500	+
Iron	mg/L	5 - 14	+
Zinc	mg/L	4 - 10	+
Chlorides	mg/L	600 - 800	+
Iodine	mkg/L	50 - 120	+
Ash	g/L	4 - 5	-
Vitamins			
Retinol (A)	mkg-equiv/L	400 - 800	+
Tocopherol (E)	mg/L	4 - 12	+
Calciferol (D)	mkg/L	7 - 15	+
Thiamine (B1)	mkg/L	400 – 1,000	+
Riboflavin (B2)	mkg/L	500 – 1,500	+
Pantothenic acid	mkg/L	2,500 – 5,000	+
Pyridoxine (B6)	mkg/L	400 – 1,000	+
Niacin (PP)	mkg/L	3,000 – 10,000	+
Folic Acid (Bc)	mkg/L	60 - 150	+
Cyanocobalamin (B12)	mkg/L	1.5 – 3.0	+
Ascorbic acid (C)	mg/L	55 - 150	+
Milk-based dry cereals requiring cooking, instant dry milk cereals			
Minerals			
Calcium	mg	400 - 600	
Sodium	mg, not to exceed	500	
Iron	mg, for enriched	6 - 10	
Iodine	mkg, for enriched	40 - 80	
Vitamins (in enriched cereals)			
Retinol (A)	mkg-equiv/L	300 - 500	
Tocopherol (E)	mg	5 - 10	
Thiamine (B1)	mg	0.2 – 0.6	

Riboflavin (B2)	mg	0.4 – 0.8	
Niacin (PP)	mg	4 - 8	
Ascorbic acid (C)	mg	30 - 100	

Addendum 17  
to the Federal Law on  
"Technical Regulations  
for Milk and Milk Products"

LIST  
OF FOOD ADDITIVES AND AROMATIZERS PERMITTED  
FOR THE MAKING OF FOOD PRODUCTS FOR INFANTS  
IN THE FIRST YEAR OF LIFE AND CHILDREN FROM ONE YEAR TO THREE YEARS OF AGE

Food Additive (Index E)	Food Products	Maximum Level in Ready Children's Food Products
Azote (E 941) Argon (E 938) Helium (E 939) Carbon dioxide (E 290)	Supplemental feeding products	In conformity with producer's technical documents
Alginic acid (E 400) Potassium alginate (E 402) Calcium alginate (E 404) Sodium alginate (E 401) (separately or in combination)	Desserts, puddings	500 mg/kg
L-Ascorbyl palmitate (E 304) Tocopherol concentrate (E 306) Alpha-tocopherol (E 307) Gamma-tocopherol (E 308) Delta-tocopherol (E 309) (separately or in combination)	Fat-containing products	100 mg/kg
L-Ascorbic acid (E 300) Calcium L-ascorbate (E 302) Sodium L-ascorbate (E 301) (separately or in combination in ascorbic acid equivalent)	Fat-containing, grain-based products, including biscuits and rusks	200 mg/kg
Potassium hydroxide (E 525) Calcium hydroxide (E 526) Sodium hydroxide (E 524) (only to regulate active acidity)	Supplemental feeding products	In conformity with producer's technical documents
Guar gum (E 412) Gum arabic (E 414) Carob gum (E 410) Xanthan gum (E 415) Pectins (E 440) (separately or in combination)	Supplemental feeding products	10 g/kg
Ammonium carbonates (E 503) Potassium carbonates (E 501) Sodium carbonates (E 500) (only as a leavening agent)	Supplemental feeding products	In conformity with producer's technical documents
Calcium carbonates (E 170) (only to regulate active acidity)	Supplemental feeding products	In conformity with producer's technical documents
Citric acid (E 300) Potassium citrates (E 332) Calcium citrates (E 333) Sodium citrates (E 331) (separately or in combination; only to regulate active acidity)	Supplemental feeding products	In conformity with producer's technical documents

Modified starches:	Supplemental feeding products	50 g/kg
Acetylated distarch adipate (E 1422) Acetylated distarch phosphate (E 1414) Acetylated starch (E 1420) Acetylated oxidized starch (E 1451) Distarch phosphate (E 1412) Monostarch phosphate (E 1410) Oxidized starch (E 1404) Phosphated distarch phosphate (E 1413) Starch sodium octenyl succinate (E 1450) (separately or in combination)		
Lactic acid (E 270) Potassium lactate (E 326) Calcium lactate (E 387) Sodium lactate (E 325) (separately or in combination; only to regulate active acidity)	Supplemental feeding products	In conformity with producer's technical documents
Hydrochloric acid (E 507)	Supplemental feeding products	In conformity with producer's technical documents
Acetic acid (E 260) Potassium acetate (E 261) Calcium acetate (E 387) Sodium acetate (E 262) (separately or in combination; only to regulate active acidity)	Supplemental feeding products	In conformity with producer's technical documents
o-phosphoric acid (E 339) (added phosphate in P205 equivalent only to regulate active acidity)	Supplemental feeding products (except partially prepared meat and fish products and sausages)	1 g/kg
Malic acid (E 296) (only to regulate active acidity) <2>	Supplemental feeding products	In conformity with producer's technical documents
Natural aromatizers	Supplemental feeding products	In conformity with producer's technical documents

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<1> Only L(+) – forms of lactic, tartaric, and malic acids and their salts – may be used to make supplemented feeding products.

<2> L(+) – lactic acid obtained from nonpathogenic and nontoxic microorganism strains – may be used to make fermented milk products.

Note. It is allowed to use food additives to make children's food products as part of another product. The content of gum arabic (E 414) in such products must not exceed 150 g/kg, and of silicon dioxide amorphous (E 551) – 10 g/kg. As part of vitamin B12, mannite is allowed in children's food when it is used as a dissolvent-carrying agent; vitamin B12 content must not exceed 1 mg/kg of mannite. Sodium ascorbate (E 301) is allowed as part of the covering of polyunsaturated fatty acid preparations. Ready-to-use products must have no more than 10 mg/kg of gum arabic or 75 mg/kg of sodium ascorbate.

ALLOWABLE DEVIATIONS FROM ACTUAL VALUES  
OF A READY PRODUCT'S LABELED NUTRITIONAL VALUE PARAMETERS

Ready product nutritional value parameters	Allowable deviations, +/-
Proteins, fat, carbohydrates, sugar, organic acids, alcohol, dietary fiber, fatty acids	
less than 10 g per 100 g of product	+/- 10%
10 - 40 g per 100 g of product	+/- 15%
more than 40 g per 100 g of product	+/- 6 г
Sodium, magnesium, calcium, phosphorus, Iron, zinc, vitamins C, B1, B2, B6, pantothenic acid, niacin, cholesterol	+/- 20%
Vitamins A, D, E, folic acid, B12, biotin, iodine	+/- 30% (not counting enhanced vitamin content in the making of a ready product)