

KONSTANTA GROUP OF COMPANIES

SCIENCE. TECHNOLOGIES. INNOVATION



READY SOLUTIONS FOR MILK PROCESSING PRODUCTIONS



About the Company

The KONSTANTA Company is a developer and manufacturer of its own line of complex food additives and technological aids.

The Company's key area is designing new ways to disable development of harmful microorganisms in food (bacteria, including coliforms, fungi, viruses, various types of mold, etc.), and giving traditional products additional useful properties.

All additives are made on the base of the innovation technology for modifying natural cellulose fibers, resulting in acquiring antimicrobial properties. The additives efficiency is caused by no chemical effect on harmful microorganisms, but by the physical one. The charged fibers bind to pathogenic microflora, and block its nutrition, respiration and reproduction processes. Thus, the microorganisms development gets suppressed, and the products shelf life significantly increases.

The additives have no analogues, and are adapted to tasks of milk processing production. Main properties are extension of the finished products shelf life, while preserving the vital activity of lactic acid bacteria (depending on the type of the additive).

The additives do not contain toxic components, carcinogens, antibiotics, GMOs, preserving agents, do not affect organoleptic properties, keeping the products eco-friendly and safe for humans.

BOOSTING OF THE PRODUCTS SHELF LIFE WITH NO STANDARD ANTIBIOTICS, PRESERVATIVE AGENTS AND OTHER CHEMICALS

PASTEURIZED MILK



FERMENTED MILK PRODUCTS



QUARK AND QUARK-CONTAINING PRODUCTS



SOUR CREAM AND CREAM



SOFT, HARD AND SEMIHARD CHEESE



PRODUCTS ENRICHED WITH IODINE



Complex food additive “Konstanta” (concentrate)

The peculiar feature of the additive is the specific effect on different groups of bacteria: when suppressing development of pathogenic microorganisms, the additive does not suppress beneficial lactic acid bacteria because of their having double cell wall.

CONTEXT OF USE	METHOD OF USE AND DOSAGE
Fermented milk drinks and desserts (kefir, curdled milk, ryazhenka, snezhok, yogurt, etc.)	Adding into the volume to reduce microbial contamination of the ingredients and avoid of force majeure during transportation and storage. The ratio is 0.4-0.6 g per 1 kg of the finished product (400-600 g of the additive per 1 t of the mixture) before pasteurization.
When adding 0.5 g of the additive per 1 liter of the raw mixture before pasteurization, in course of production of ryazhenka and sweet snezhok, in 3 days at a storage temperature of +36°C in the thermostat, no changes in organoleptic parameters were detected, mold remained suppressed. The pack of the reference flow sample was swollen, and its content under the lid was covered with mold.	
Sour cream and sour cream products, cream	Adding into the volume to reduce contamination of the ingredients, shelf life extension. The ratio is 1-1.5 g per 1 kg of the finished product (1,000-1,500 g of the additive per 1 t of the finished mixture) before pasteurization.
Having been added 1 g of the additive into 1 l of sour cream, the sour cream with standard shelf life of 15 days remained eatable within 22 days. Packaging cups are also a possible source of pathogenic microflora transfer; they were additionally treated with solution of “Deztin” in the ratio of 1:50 (1 kg of the concentrate per 50 l of water)	
Soft and semihard cheeses, cream cheeses, mixtures for producing brined cheeses	Adding into the volume to reduce microbial contamination of the ingredients and avoid of force majeure during transportation and storage. The ratio is 1 g of the additive per 1 kg of the product (1,000 g per 1 t of the finished mixture), at the stage of primary mixing of ingredients.

INGREDIENTS: water, modified cellulose fibers, iodized salt.

PACKAGING: 1 kg / 5 kg / 10 kg / 25 kg



Complex food additive “Konstanta Milk” (concentrate)

Special feature of the additive is its supplementary antioxidant effect, which helps restrain the rapid development of lactic acid bacteria in the volume of the product, and slow its early souring.

CONTEXT OF USE	METHOD OF USE AND DOSAGE
Milk pasteurized, packaged, in regular pack	Adding into the volume of milk after pasteurization in the ratio of 0.5-1 g of the additive per 1 kg of finished milk.
Besides suppressing the pathogenic microflora, and extending shelf life, in milk, inhibiting active reproduction of lactic acid bacteria is observed too, but it does not stop as in case of antibiotics, so such milk can be used for making good homemade kefir, which only proves the quality of milk. Moreover, the manufacturer “wins” a few days to the products shelf life. Also, the additive slows down processes of milk fermentation and yogurt clot formation for several days.	



INGREDIENTS: modified cellulose fibers, iodized salt, citric acid, ascorbic acid, sodium lactate, water.

PACKAGING: 1 kg / 5 kg / 10 kg / 25 kg



Complex food additive “Deztin”

Complex food additive “Deztin” is effective against all gram-negative, gram-positive bacteria, pathogenic fungi, molds, lactic acid bacteria.

CONTEXT OF USE	METHOD OF USE AND DOSAGE
Cream cheeses (sliced, sausage, pastelike, sweet) in bars, sectors, cylinders	External surface treatment of sealing tape and thread with solution in the ratio of 1:50 (1 kg of the concentrate per 50 l of water). Suits for dipping (5 ml), fine mist irrigation of finished cheeses. Thus, per 1 kg of the product – the finished loaf or sector, especially in places of contact with sealing tape and thread, solution is used in the ratio 1:50 (1 kg of the concentrate per 50 l of water). Suits for dipping, fine mist irrigation of finished cheeses, as well as soaking threads.
Semihard cheeses	External treatment of cheese heads with solution in the ratio 1:50 (1 kg of the concentrate per 50 l of water). Suits for dipping, fine mist irrigation and cold mist machines.
Hard cheeses	External surface treatment of cheese heads with solution in the ratio of 1:50 (1 kg of the concentrate per 50 l of water). Suits for dipping, fine mist irrigation and cold mist machines.
Soft cheeses (Roquefort with mold, and other cheeses), in which mold is introduced by piercing, and it is required to stop formation of mold on the heads surface	External surface treatment of cheese heads with solution in the ratio of 1:50 (1 kg of the concentrate per 50 l of water), after piercing cheese heads. Suits for dipping, fine mist irrigation and cold mist machines.

Complex food additive “Deztin”

“Deztin” is neither disinfectant nor antiseptic, does not contain free chlorine or PAA, and, consequently, is completely safe, and does not require washing the agent off from the surface treated.

CONTEXT OF USE	METHOD OF USE AND DOSAGE
Brined light-salted cheeses	Adding into the brine, when salting heads, to suppress development of pathogenic microflora during the entire cycle in the ratio of 300 g of the concentrate per 1 t of brine. When adding new brine to the salt tub, introduce the additive in strict proportion to the brine added.
Brined medium-salted rennet cheeses	Adding into the brine, when salting heads, in the ratio of 100 g of the concentrate per 1 t of brine. When adding new brine to the salt tub, introduce the additive in strict proportion to the brine added. When packing cheese, with the use of new brine, the additive is introduced in the ratio of 200 g of the concentrate per 1 t of brine.
Cottage cheese granulated	Added into the whey before it is drained in presence of grain, in the ratio of 250-500 g of the concentrate per 1 t of whey. After introduction, stir the whey to distribute the concentrate in the tub. The exposure time is 10-15 minutes. Then the whey should be drained, and the cottage cheese is packed in compliance with the standard technology.
Dried cheeses, snack products	External surface treatment of the cheese, before drying, with solution in the ratio of 1:50 (1 kg of the concentrate per 50 l of water). Suits for dipping, fine mist irrigation and cold mist machines.

Complex food additive “Deztin”

CONTEXT OF USE	METHOD OF USE AND DOSAGE
Gloves and tools of employees involved in the process cycle	Treatment of hands, gloves and tools of employees with the concentrate solution in the ratio of 1:50 (1 kg of the concentrate per 50 l of water)
Treatment of equipment (separator, cooling milk tanks, tanks for fermented milk products, curd tubs, fermenters and pasteurization tubs, cheese-making tubs, molds and racks for finished products), dacron bags, tools, rooms, boxes, cutting tools and nets	To prevent external transfer of pathogenic microflora to the finished product, flushing with the concentrate solution in the ratio of 1:50 (1 kg of the concentrate per 50 l of water) is carried out after all stages of washing with standard agents and caustics. Do not wash the solution off. After application, the solution can be collected and used in closed systems for about 1 month.
Treatment of air, surfaces in contact with the product, containers, packages, trays, pipelines and mechanical joints	Fine mist treatment with the concentrate solution in the ratio of 1:50 (1 kg of the concentrate per 50 l of water)
Disinfection of water in course of production process	Adding into water tanks in the ratio of 1 kg of the concentrate per 20 t of water

INGREDIENTS: water, modified cellulose fibers, iodized salt.
PACKAGING: 1 kg / 5 kg / 10 kg / 25 kg



Complex food additive “Iod-BIO” (10,000 technological doses)

The additive is used for enriching products with iodine. Peculiar feature of the development is that iodine is stabilized by cellulose fibers and releases only in the acidic environment, that is, when the product enters the stomach, bypassing the mucous membranes, where excess iodine can lead to adverse effect.

Advantages of “Iod-BIO”

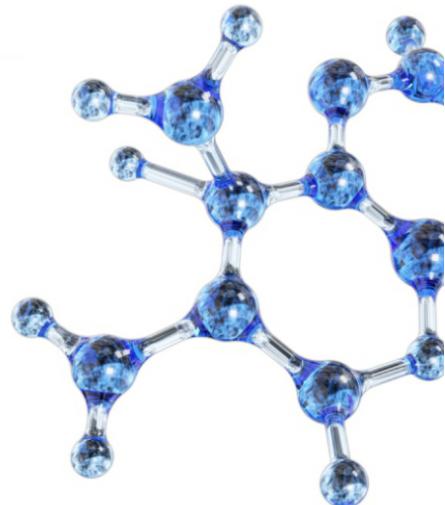
1 Fully water-soluble additive, in liquid form

2 Technologically convenient use for adding into any beverage, milk or food product having some liquid fraction

3 Withstands heat treatment up to 200°C

4 Releases iodine only at pH below 3.5

5 Low economic burden when enriching the final product



The complex food additive “Iod-BIO” is used for enriching the food product with iodine and potassium.

The additive contains 10,000 technological doses, which are equal to 1,000 full pharmaceutical daily doses for human.

In food products, active substances should not exceed 10% of the daily dose.

Advantages of our additives

1

Developed by Russian scientists to help manufacturers follow the import substitution policy

2

Complex food additive "Deztin" forms a nanoscale polymer film on the surface that disables development of microorganisms, due to which it has the prolonged effect. Washing off from the surface is not required.
When treating premises and equipment, the antimicrobial property is effective within the period from 36 hours to 7 days, under significant physical exposure – within 1 shift or 8 hours.

3

Not detected by standard methods of microbiological analysis, which allows retaining "purity" of the product label.

4

Effective at cooling and heating (from -20°C to +180°C)

5

Neither antibiotics nor enzyme preparations; do not contain GMOs; no harm to humans and animals, easily removable from the gastrointestinal tract within 24 hours.





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