

# **INSTRUCTION LEAFLET**

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## INTRODUCTION

The biocide Septaksin is not allergenic.

The biocide Septaksin has antimicrobial activity against gram-positive and gram-negative bacteria (including Koch's bacillus), viruses (influenza, herpes and other ethiological agents of acute respiratory viral infections – ARVI, HIV, hepatitis, rotaviruses and enteroviruses, poliomyelitis), fungi such as Candida, Dermatophytes, mold fungus.

The biocide Septaksin is used for the disinfection of surfaces in premises, sanitary appliances and equipment, items of patient care, linens, dishes and pre-sterilizing cleaning of medical equipment and instruments from different materials (including stomatological instruments, hard and flexible endoscopes and items for them) in medical and preventative institutions (stomatology, surgery, infection, maternity and puerperal, children's departments and hospitals), communal facilities (hotels, hostels, motels, dormitories, saunas, swimming pools, holiday hotels, sanatoriums, sport and fitness complex, fitness – clubs, hair-dresser saloons, children's pre-school and school institutions, welfare offices and institutions - (old-folks houses), penal system organizations (Department of Correction), military units railways, vehicles, avia transportation, metro, vegetable storage, food-processing plants (for equipment disinfection and supply lines in non-alcoholic drinks industry), in water bottling industry, breweries (for removing the beer stone), in dairy industry and meat-processing industry; for disinfection of air by pulverizer of Quasar system (by irrigation method 150 ml/m<sup>2</sup>) in all objects mentioned above and also for control of mold fungus.

Septaksin is also used for the disinfection of residual quantities of fecal-urinal deposits in storage container of stand-alone toilets which do not have sewage disposal and also for disinfection of bio-toilets.

Septaksin is recommended for use in veterinary surgeries. The product is used for necessary and prophylactic disinfection of premises and facilities of slaughter departments of poultry factories and poultry-processing enterprises, pre-incubatory eggs treatment, sanitary-slaughter departments on farms, dairy farms, fish breeding and fish processing enterprises, food markets, zoos, breeding nurseries, and for the treatment of the vehicles delivering groceries.

**Septaksin** has a number of advantages over chlorine-containing biocides:

- application of Septaksin is more cost-effective than chlorine-containing products (high antiviral effect with low concentration as the ready-to-use solutions keep their antiviral activity and can be used repeatedly for 14 days).
- **Septaksin** is not corrosive for metal, does not react to different surface materials nor leave any marks on it.
- It does not irritate upper air passages, does not have an aggressive odor (it can be applied in the presence of patients and employees of medical and preventive institutions).
- It has a detergent effect.
- It does not bleach fabric.

The biocide is produced in plastic containers of 1, 5, 10 liters. The life time of concentrate is 5 years in the closed factory packaging in 0 +35 °C. If product is frozen, Septaksin does not lose its qualities after defrosting and maintains its product life time.

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## **1. INSTRUCTION FOR USE BIOCIDES SEPTAKSIN TO DISINFECT EQUIPMENT AND SURFACES OF WORKING ROOM IN THE DAIRY**

These instructions are meant for employees of the dairy industry during the technological cleaning process and disinfection.

Instructions determined methods and cycles of biocide Septaksin use, safety requirements, technological order of disinfection, control methods of Septaksin working solutions concentrations and rinsability completeness of reminders from the inner surface of disinfected object.

Septaksin is a liquid of blue – sky blue colour and dissolves completely in water. It contains QuAT as an active agent. In addition Septaksin contains isopropyl alcohol and other compounds. In 0,1-0,15% concentrations it completely dissolves and forms see-through solutions with pH 6,5 - 7.6.

The life expiry is 5 years. Life expiry for working solutions while using until the solution changes colour is 14 days.

Septaksin is flameproof and explosion-proof, compatible with other cationic and non-ionic compounds, alkyl metal salts of non-organic and organic acids.

Septaksin life time in a closed factory container is 5 years from production date and has to be kept in the temperature from 0 up to 35 °C. Solutions of Septaksin are non-fugative. Ready solution keeps its microbial activity during use for 14 days and can be used repeatedly.

1.2. Septaksin is highly effective antimicrobial biocide against bacteria, staphylococcus, streptococcus, salmonella, fungus mold and yeasts

1.3. The characteristics of acute toxicity of the concentrate is classified according to the 1999/45/ES. Working solutions 0,1 – 5 % do not irritate and it is not necessary to use eye-shields during work with ready solutions. The product is not allergenic..

1.4. Disinfectant Septaksin is used for disinfection of technological equipment, pipelines, working surfaces and utility rooms as solutions in 0.1 - 0,15% concentration.

Solutions of Septaksin are safe, non-fugative, explosion-proof, non-aggressive, have detergent effect and can be used for disinfection of all kind of dairy industry equipment made from stainless steel, aluminium, low-carbon steel, from materials covered with nickel and yellow metal (latten) and plastic. Also it does not cause negative reaction in contact with rubber, spun concrete, wood, ceramic tiles, glass and polymer materials.

Working solutions are used according to the “Instruction of equipment sanitary cleaning, furniture and packs (boxing) on the dairy industry enterprises”, i.e. after careful alkaline wash and rinsing, if needed to carry out additional acid wash and rinsing and then disinfecting.

Protein-fatty pollutions are not accepted on the surfaces immediately disinfection. Rinsing has to be carried out traditionally after the disinfection.

1.5. The biocide is produced in plastic cans of 0,25, 1, 5, 10, 20, 50, 200 liters.

The way to store Septaksin on the dairy industry enterprises is in the closed packaging from the factory-producer in a dry covered accommodation with ventilation equipment built in the separate lockable cupboard and placed on the wooden shelve stand or on the tray.

## **2. MAKING WORKING SOLUTIONS & USING BIOCIDES FOR DISINFECTION PURPOSES**

2.1. For disinfection of technological equipment, pipelines, surfaces of manufacturing facilities and utility rooms the biocide Septaksin is used as working water solutions which bacterial concentration specified on the level of 0,1 – 0,15 %.

## Approximate amounts of Septaksin for working solution preparation

Table 1.

Concentration of Septaksin working solution, %	Quantity of Septaksin and water in ml for volume preparation of working solution			
	5 liters		100 liters	
By the preparation	Concentrate	Water	Concentrate	Water
0,1	5,0	4995,0	100	99900
0,15	7,5	4992,5	150	99850

2.2. Concentration is defined according to the general instruction which is specified in the Attachment 1.

2.3. Disinfection is carried out after careful preliminary treatment with washing liquids according to their recommendations for use. Do not use fatty and protein pollutions.

2.4. Before disinfecting working surfaces, sanitary-social and utility rooms (ceilings, walls) is necessary to wash it (degrease) with alkaline technical washing agents according to the “Sanitary recommendations for the dairy industry enterprises”.

2.5. The equipment and room surfaces are disinfected after complete removing of washing solution reminders by tap water. Disinfection is carried out according the instruction in Table 2. The estimated amount of Septaksin is placed into a container of the washing station for the mechanical cleaning method and into the washing bath for the handwash method. Mechanical method of washing allowings diluted working solutions, therefore solution is prepared at 0,15% concentration; if dilution falls below a 0,1% solution concentration you should correct it's concentration, i.e. “refeeding”.

### Cycles of biocide Septaksin use

Table 2.

Object of disinfection	Rates of Septaksin ready solution			Regimes Method of application
	Concentration, %	Temperature, °C	Time of exposition, min	
1	2	3	4	5
Cisterns, tanks, containers –surfaces:  External  Internal	0,15 (hand wash.)	20-50	7-10	Hand wash*: surfacing by special irrigating equipment; mechanical attack is done with brush and bottle-brush.
	0,1-0,15 (mechanical wash.)		7-10	Mechanical wash: circulation of solution in the system Steel Insulated Wires; exposition depends on the size of disinfected object
	0,15 (hand wash)	50-90	7-10	

Milk-line, pipeline	0,1-0,15 (mechanical wash)	50-90 20-50	7 10	Mechanical wash: circulation of solution in the system Steel Insulated Wires; exposition depends on the pipeline length
Culture tanks, baths vacuum-arc remelting etc., churns, canisters, cheese forms, filling lines, filling and packing lines	0,15 (hand wash.)  0,1-0,15 (mechanical wash)	20-50  50-90	7  7-10	Hand wash*: surfacing by special irrigating equipment; mechanical attack is done with brush and bottle- brush.  Mechanical wash: recirculation of solution in the system Steel Insulated Wires; exposition depends on the size of disinfected object
Parts of equipment, machines and installations (plates of separator, taps, muffs, gags etc.), feetments and small parts, conveyer belts	0,15 (hand wash)	20-50	7-10	Hand wash*: complete dipping into the container(bath) with disinfectant: mechanical wash is carried out by brush and bottle-brush; exposition depends on the size of disinfected object
Metal and polyethilen baskets and polyethilen boxes	0,15 (hand wash)  0,1-0,15 (mechanical wash)	20-50  50-90	7-10  7-10	Hand wash*: soaking, mechanical wash by brushes and bottle- brushes.  Mechanical wash: hydromechanical impact and chemical impact with help of baskets washing machine and box washing machines
Floors, walls, ceilings	0,15	20-50	10	Hand wash*: surfacing the solution by a special irrigating equipment; mechanical wash by brush and bottle-brush

Note: \*the amount of working solution used during the hand wash is about 0,35liter per 1m<sup>2</sup> surface; disinfecting hard-to-reach areas up to 15 minutes longer. When the temperature increases bacterial qualities of the biocide get noticeably stronger, therefore it's effective to use solutions of Septaksin at higher temperatures than 40°C.

2.6. Types of disinfection connected to building technological equipment are specified in the instructions of use for that equipment in the “Instructions for sanitary cleaning of equipment, furniture and boxing on the enterprises of dairy industry”.

2.7. For the hand wash disinfection of equipment parts, furniture and boxing, stationary and (or) portable washing baths 2- and 3- sectioned, tables for spare parts, shelve stands for drying of parts and furniture (equipment) have to be provided.

2.8. After disinfection concentration of Septaksin solution has to be checked and if needed has to be brought to the norm. If the protein-fatty pollutions are not in the solution or the solution has not changed it's colour, you can use the same solution 4-5 times after “refeeding” it.

If there are mechanical foreign substances or organic matter in the used solution, disinfectant has to be discarded at a station of deacidification.

2.9. After the treatment, pipelines and surfaces of rooms are rinsed with tap water until disinfectant is gone (for 7- 10 minutes depending on pipeline length and size of the disinfected object).

2.10. To control the quality of rinsing of Septaksin from the disinfection solution remainders test-paper (type QAC QR TEST Strips” from LaMotte Company USA) could be used

- mechanical wash method used: the test-paper has to be dipped into the wash (flush) water;
- hand wash disinfection used: the test-paper is applied to the object surface.

The test-paper will change colour from dirty-green (mossy) to light-green if residual disinfectant is left in the water or on the surface. The test-paper does not change colour (stays light-yellow) if there is no disinfectant left.

2.11. Quality control of the disinfection process is carried out by chemic-analyst and microbiologist of the enterprise (sanitary doctor or inspector) according to the instruction requirements of microbiological control on dairy industry enterprise and according to the public health regulation “Dairy industry and dairy products manufacturing”.

Note: For increasing the efficiency we recommend carrying out disinfection 30 minutes before switching on the equipment and machines.

### **3. PRECAUTIONS**

3.1. Work is to be done by people not younger than 18 y.o. and who have been trained in safety technology.

3.2. During the work on solutions preparation people have to use self prevention facilities (rubber gloves, air-locked glasses), and disinfection work has to be carried out with rubber gloves.

3.3. You have to avoid getting the agent into eyes or on the skin.

3.4. Surfaces disinfection by working solutions of Septaksin by wiping can be carried out in presence of patients.

Surfaces disinfection by spraying can be carried out in presence of patients using individual prevention facilities for respiratory organ – all-purpose respirator type RPG-67 or RU-60M with socket type B and for eyes protection – air-locked glasses.

3.5. The biocide should be kept in the airproof factory packaging in temperatures from 0°C to +35°C separate from the medications and in places where children cannot reach it.

#### 4. FIRST AID IN CASE OF ACCIDENTAL POISONING

4.1. When the concentrate gets into eyes, rinse them with a lot of flowing water for not less than 15 minutes and drop in 30% solution of sulfacyl sodium (sulfacetamid), seek help from the ophthalmologist.

4.2. When biocide gets to the skin wash it with a lot of water. Do not use cream or other medications.

4.3. When biocide or its solutions get to the stomach drink 200 – 500 ml cold water. Drinking water is necessary only if person feels pain in the mouth and throat. If there is a pain in the mouth rinse with water. Do not take activated carbon. Do not induce vomiting!

#### 5. PHYSICOCHEMICAL AND ANALYTICAL CONTROL METHODS OF DISINFECTION AGENT SEPTAKSIN

5.1 Septaksin is controlled by following quality indexes: appearance, smell, density of disinfectant, level of hydrogen ions in concentrate (pH).

5.2. Appearance identification.

Appearance of the biocide is judged by visual check of running sample placed in the glass 100 cm<sup>3</sup> – on the white background, colour of the agent is from blue to sky-blue..

##### Index norm of biocide Septaksin

Table 3 shows controlled indexes and norms for each of them

Table 3

№	Index name	Norm
1	Appearance	See-through liquid blue – sky-blue colour
2	Density of disinfectant in 20°C, г/см <sup>3</sup> , within	1,000-1,015
3	Activity index of hydrogen ions for concentrate, pH, within	7,6±1,4

5.3. Density identification of Septaksin.

Density identification measured by densimeter (areometer).

5.4. Index identification of hydrogen ions (pH).

5.4.1. Equipment, dishware.

Laboratory pH- millivoltmeter, pH-340 or other type.

Glass B-1-100.

5.4.2. The measurements to carry out.

To identify activity index of hydrogen ions pH of Septaksin is carried out on the pH-meter according to the instruction attached to the facility.