

APPROVED

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**GUIDELINES ON
THE USE OF ONIKO DESOCHLORINE DISINFECTANT**

TU U 20.2-19242964-010:2020

Kyiv, 2020

GUIDELINES on the use of Oniko Desochlorine Disinfectant

1. GENERAL TERMS:

- 1.1 **Full name of disinfectant** – ONIKO DESOCHLORINE Disinfectant, TU U 20.2-19242964-010:2020.
- 1.2 **Manufacturer** – ONIKO Private Enterprise. Manufacturing areas – ONIKO Private Enterprise, 04071, Kyiv, Naberezhno-Lugova str., 8. Office and correspondence – ONIKO Private Enterprise, 04070, Kyiv, Voloska str., 55/57.
- 1.3 **Composition, active substances and excipients** – Mass fraction of free chlorine (Cl_2) in concentrate is 0.45% \pm 0.1% (4.5 ± 1 g per 1 dm^3). **Composition (as a percentage):** *sodium chloride – not more than 3; sodium hypochlorite – not more than 0.9; prepared water – up to 100;*
- 1.4 **Presentation and physical and chemical properties of disinfectant** – ONIKO DESOCHLORINE Disinfectant is liquid concentrated disinfectant. Disinfectant is well soluble in water. Water solutions are clear and have a specific light odour of chlorine. Active substance – sodium hypochlorite.
- 1.5 **Intended use** – ONIKO DESOCHLORINE Disinfectant is intended for disinfection of floors and walls in rooms, hard furniture, sanitary equipment, rubber mats, linen, tableware and laboratory glassware (including disposable items), tools for washing dishes, items for taking care of patients, toys, medical waste (dressing material, etc.), urine, sputum, medical equipment for bacterial infections. Disinfectant is used during daily and general cleaning, as well as disinfection measures in child care facilities, communal facilities (hotels, hostels, hairdressing salons, public toilets, etc.), cultural, recreational and sports institutions (cinemas, offices, sports and cultural and recreational complexes, pools, etc.), public catering and trade enterprises, food production enterprises, medical institutions and by population in everyday life.
- 1.6 **Use of disinfectant:**
 - for current and final disinfection, general cleaning, prophylactic disinfection of pathogens of intestinal and drip bacterial infections (including tuberculosis, anaerobic and nosocomial infections, pathogens of especially dangerous infections (EDI) – plague, cholera, tularusemia), viral (including adenoviruses, influenza and parainfluenza viruses and other pathogens of respiratory infections, entero-, rotaviruses, poliovirus, enteral and parenteral hepatitis viruses, herpes, atypical pneumonia, coronaviruses (HCoV-229E, CCV, SARS-CoV, COVID-19 (SARS-CoV-2), etc.), bird influenza virus, AIDS virus (HIV) and fungal (including candidosis, dermatomycoses, mould fungi) etiology in foci of infectious diseases and health care institutions of all profiles: in manipulation, dressing rooms, operating rooms, intensive care and resuscitation departments, in surgical, obstetric, gynecological, therapeutic, pediatric departments, neonatal departments, wards and units, maternity hospitals, dental clinics and suites; medical centres, dispensaries, rehabilitation centres, holiday centres, preventive medical clinics, hospices, etc.; emergency medical stations (including medical ambulances); laboratories of different subordination (clinical, biochemical, bacteriological, virological, serological, immunological, etc.);
 - for disinfection, combination of disinfection processes with pre-sterilization cleaning (manual and mechanized methods in specialized and ultrasonic installations of any type);
 - for high-level disinfection (HLD) in treatment and preventive institutions;
 - for disinfection, sterilization and combination of disinfection and pre-sterilization cleaning of hairdressing, manicure, pedicure and cosmetic instruments;
 - for pre-sterilization cleaning, not combined with disinfection, medical equipment, including surgical, gynecological and dental instruments, flexible and rigid endoscopes, individual elements and components of anesthesia-respiratory equipment, anesthesia equipment (manual and mechanized methods in specialized and ultrasound installations of any type) in treatment and preventive institutions;
 - for disinfection of couveuses and their accessories, surfaces of resuscitation, manipulation and changing tables, gynecological and dental chairs, anesthesia-respiratory equipment and its accessories, anesthesia equipment, diagnostic equipment (ultrasound) sensors, X-ray diagnostic and angiographic systems, magnetic resonance and computed tomography equipment, etc.;
 - for disinfection of disposable medical equipment and used dressing material before their disposal;
 - for disinfection of biological, food and other waste (blood, urine, feces, sputum, flushing water, vomiting matters, liquid waste, etc.), utensils used after collecting secretions;
 - for disinfection and simultaneous washing of surfaces in rooms, sanitary equipment, laboratory glassware and tableware including disposable items, dishwashing items, linen (including cabinets, trolleys and containers for transporting linen), cleaning equipment, rubber mats, toys, patient care items, personal hygiene products, sanitary transport, shoes to prevent infections of fungal etiology;

- for disinfection of shoes before entering the “critical areas” (solutions used to fill disinfectant pans);
- for disinfection and simultaneous washing of technological equipment at the pharmaceutical, microbiological, perfume and cosmetic, food production and food processing enterprises;
- for disinfection of objects with mould lesion (mould fungi);
- for disinfection of garbage chutes, garbage collection tanks, etc.;
- for preventive disinfection in treatment and preventive, child care and educational institutions of different levels of accreditation, in pharmacies (pharmaceutical warehouses, pharmacies, pharmacy branches, pharmacy kiosks, etc.), in the pharmaceutical, microbiological, perfume and cosmetic, food production and food processing enterprises; in recreational centres (rest houses, holiday centres, preventive healthcare clinics, etc.), in rest and entertainment establishments, in municipal objects (hotels, campings, hostels, saunas, baths, laundries, dry-cleaners, etc.), for objects of municipal and household function (hairdressing salons, beauty salons, manicure, pedicure and cosmetic suites, etc.); in sports and healthcare complexes; in rolling stocks and facilities for city (subway), railway, automobile, aviation, sea, river transport and station infrastructure; in restaurant and trade establishments; in social protection institutions, hospices, senior centres, in penitentiary institutions and military units; in banking and communication institutions; in places of public use, at other epidemically significant objects, the activity of which requires disinfection in accordance with the current sanitary-hygienic and anti-epidemic norms, rules and regulations.

- 1.7 **Antimicrobial spectrum** – ONIKO DESOCHLORINE Disinfectant has antimicrobial activity against gram-negative and gram-positive bacteria (including tuberculosis, anaerobic and nosocomial infections, pathogens of especially dangerous infections (EDI) – plague, cholera, tularemia), viruses (including adenoviruses, influenza and parainfluenza viruses and other pathogens of respiratory infections, entero- and rotaviruses, poliovirus, enteral and parenteral hepatitis viruses, herpes, atypical pneumonia, bird influenza virus, AIDS virus (HIV) and fungi (including candidosis, dermatomycosis, mould fungi) has sporicidal properties.
- 1.8 Disinfectant **can be used for disinfection of water** for technical and industrial needs, water in pools, circulating water in production and cooling systems, as well as for disinfection of drinking water (with the mandatory observance of the requirements of 2.2.4-171-10 “Hygienic requirements for drinking water intended for human consumption” given by State Sanitary Rules and Regulations of Ukraine).
- 1.9 0.015-0.06% work solutions (by active chlorine) in the form of steam do not cause irritation of the respiratory tract. Their single exposure does not cause local skin irritation. Work solutions with content of active chlorine of 0.1% and higher can cause irritation of the upper respiratory tract and mucous membranes of the eyes when used by wiping and irrigation methods.
- 1.10 **Shelf life of concentrate in unbroken original container** – 12 months. **Shelf life of concentrate after container opened** (in closed original container) – for not more than 3 months from the day of opening. **Shelf life of work solution** – 1-3 days from the moment of preparation of work solution.
- 1.11 Available in containers of 1, 3, 5, 10, 30, 50, 100, 150, 200, 500 and 1000 litres of concentrate.
- 2. Preparation of work solution using concentrate**
- 2.1 Pour clean water according to Table 1 into a clean, marked, corrosion-resistant container (stainless steel, glass, porcelain, polymeric materials) at the temperature of +5°C to +40°C).
- 2.2 Add disinfectant concentrate according to Table 1, stirring the solution with a sodium hypochlorite-neutral spatula.

Table 1 Preparation of work solution using concentrate of ONIKO DESOCHLORINE Disinfectant

Concentration of free chlorine in work solution, %	1 litre of work solution		5 litres of work solution		10 litres of work solution	
	Water (L)	Concentrate (L)	Water (L)	Concentrate (L)	Water (L)	Concentrate (L)
0.015	0.967	0.033	4.835	0.165	9.670	0.330
0.03	0.934	0.066	4.670	0.330	9.340	0.660
0.06	0.867	0.133	4.335	0.665	8.670	1.330
0.1	0.778	0.222	3.890	1.110	7.780	2.220
0.15	0.667	0.333	3.335	1.665	6.670	3.330
0.2	0.556	0.444	2.780	2.220	5.560	4.440
0.3	0.334	0.666	1.670	3.330	3.340	6.660

- 2.3 **Shelf life of work solution** – 1-3 days.
- 2.4 To give washing properties to Desochlorine Disinfectant work solutions, you can add a synthetic detergent, approved for use (Lotos, Lotos-machine, Astra, Progress, etc.) in an amount of 0.5% (5 g / 1 L of solution, 25 g / 5 L of solution or 50 g / 10 L of solution).
- 2.5 **ATTENTION: IN CASE OF PREPARATION OF WORK SOLUTIONS OF SMALL VOLUME, THE RATIO OF CONCENTRATE AND WATER AND THE ORDER OF PREPARATION OF SOLUTIONS SHOULD BE FOLLOWED STRICTLY.**
- 3. Use of work solution**
- 3.1 Disinfection of objects is conducted using work solution of the temperature of +5°C to +40°C.
- 3.2 Disinfection with the help of work solution is recommended by irrigation, wiping, partial or full immersion in the solution.
- 3.3 Utilization rate of work solution when wiping is 150 mL/m², when used with detergent – 100 mL/m², when irrigated – 150 – 300 mL/m². After disinfection by irrigation, wet cleaning is performed to remove possible residue of work solution.
- 3.4 Linen is soaked in a container with work solution at the rate of consumption – 5 L / 1 kg of dry linen. The container is closed with a lid. After disinfection, the linen is washed and rinsed. Transport for transportation of used linen and its cabinets are irrigated or wiped with a cloth soaked in work solution, followed by compliance with appropriate exposure. Oilcloth bags for dirty linen are soaked in the container with work solution.
- 3.5 Cleaning equipment is soaked in work solution. After disinfection, rinse and dry.
- 3.6 Laboratory glassware and tableware, freed from food residue, are completely immersed in work solution. Consumption rate of work solution is 2 litres per a set of tableware. The container is closed with a lid. After disinfection, the glassware or tableware is washed with water until an odour of chlorine disappears.
- 3.7 Dishwashing items are immersed in work solution. After disinfection, rinse and dry.
- 3.8 Patient care items, toys (except soft toys) are immersed in the solution or wiped with a cloth soaked in the solution. Large toys are disinfected by irrigation. After disinfection, they are thoroughly washed with water until an odour of chlorine disappears.
- 3.9 Used dressings, wipes, tampons, etc. are immersed in plastic or enameled containers closed with lids, with 0.3% (by active chlorine) work solution; disposable medical equipment are immersed in 0.2% or 0.3% (by active chlorine) work solution. The technology of disinfection is similar to that, indicated in paragraph 3.11. After disinfection, medical waste is discarded.
- 3.10 Urine collected in a container is filled with concentrated agent and mixed. The container is closed with a lid. After disinfection, the urine is discarded.
- 3.11 When disinfecting medical equipment, they are completely immersed in work solution. The channels and cavities available in the devices are filled with work solution (pipettes, syringes), avoiding the formation of air plugs; detachable devices are immersed in work solution in a disassembled form. Thickness of work solution layer over the devices should be at least 1 cm. After disinfection, the devices are washed under running water for 5 minutes.
- 3.12 Regimens of disinfection using Desochlorine Disinfectant solutions in case of different infectious diseases are demonstrated in Tables 2-7.
 During general cleaning, disinfection in treatment and preventive institutions and child care institutions is guided by regimens demonstrated in Table 8.
 In hotels, hostels and other public places, disinfection of objects is performed according to regimens specified in Table. 2.
 In baths, pools, sports complexes, and hairdressing salons, disinfection of objects is conducted according to regimens recommended for dermatophytes (Table 6).
 Sanitary transport after transportation of an infectious patient is disinfected according to regimens of the corresponding infection. Regular preventive treatment of sanitary transport is performed in accordance with regimens presented in Table 2.
- 3.13 To control mould (mould fungi), the surface is thoroughly cleaned in advance with a brush twice with an interval of 15 minutes treated with work solution in accordance with regimens specified in Table 9. Tableware and laboratory glassware are treated by immersion, linen and cleaning equipment – by wiping and soaking. To remove mould (mould fungi), the surface is thoroughly cleaned in advance with a brush twice with an interval of 15 minutes treated with work solution in accordance with regimens listed in Table 9. Tableware and laboratory glassware are treated by immersion, linen and cleaning equipment – by wiping and soaking.
- 3.14 The inner surface of shoes is wiped twice with a swab soaked in work solution. At the end of the disinfection time, the treated surface is wiped with a swab soaked in water and dried. Bath sandals and polymer slippers are

disinfected by immersion in work solution, preventing them from floating. After disinfection, wash them with water.

3.15 Disinfection, including combined with pre-sterilization cleaning, anesthesia-respiratory equipment components and its accessories, anesthesia equipment is conducted in accordance with current regulations. Components (endotracheal tubes, tracheotomy cannulas, oropharyngeal airways, face masks, anesthesia hoses) are immersed in the solution at the exposure time according to treatment regimens. All channels and cavities are filled with the help of additional means. After disinfection, they are washed in the same solution, removed from the container with work solution, washed from disinfectant residue under running water. Then all products are washed with distilled water, dried and stored under aseptic conditions.

3.16 Treatment of couveuses and their accessories is conducted in a separate room in the absence of children and in accordance with treatment of couveuses.

The surfaces of the couveuses (incubator) and their accessories are thoroughly wiped with a cloth soaked in work solution at the rate of 75-100 mL/m². The surfaces of the couveuses (incubator) and their accessories are thoroughly wiped with a cloth soaked in work solution at the rate of 75-100 mL/m².

After disinfection, the surfaces of the couveuses are thoroughly wiped with a clean cloth (diaper), abundantly soaked in water. After washing, the surfaces of the couveuses are wiped dry with a clean cloth (diaper). After finishing, the surfaces of the couveuses are ventilated for 15 minutes.

The accessories including humidifier, metal blast damper, air-intake tubes, hoses, oxygen handling unit are completely immersed in the container with work solution.

After disinfection, all accessories are rinsed by sequenced double immersion in distilled water for 5 minutes each, pumping water through tubes and hoses.

The accessories are dried with clean cloths.

During processing, it is necessary to consider recommendations given by the manufacturer of couveuses.

3.17 Containers for collecting and removing medical waste are processed by wiping or irrigation.

3.18 In anaerobic infections, the treatment of any objects is conducted by wiping, irrigation, soaking or immersion, using 0.2% work solution with exposure time of 60 minutes or undiluted solution with exposure time of 30 minutes.

3.19 **In everyday life, disinfectant is used as 0.015% (free chlorine) work solution only.**

Table 2 – Regimens of disinfection using Desochlorine Disinfectant solutions in case of bacterial (except tuberculosis) infections

Object to be disinfected	Concentration of free chlorine in work solution, %	Time of disinfection, min	Method of disinfection
Surfaces in rooms (floor, walls, door, etc.), hard furniture, sanitary transport	0.015 0.03	60 30	Wiping or irrigation
Tableware without food residue	0.015	15	Immersion
Tableware (including disposable items) with food residue	0.1	120	Immersion
Laboratory glassware (including disposable items)	0.1	120	Immersion
Linen uncontaminated with body fluids	0.015	60	Soaking
Linen contaminated with body fluids (urine, feces, blood)	0.2	120	Soaking
Toys	0.03	60	Immersion, wiping or irrigation
Items for taking care of patients	0.06 0.1	90 60	Immersion or wiping
Urine	0.05 (0.111 L of concentrate per 1 L of urine) 0.1 (0.333 L of concentrate per 1 L of urine)	30 15	Covering with concentrated agent

Sanitary equipment	0.03 0.06	120 60	Double wiping or double irrigation with interval of 15 min
Cleaning tools	0.2	120	Soaking (immersion)
Trolleys, bags and cabinets for linen	0.05 0.1	30 15	Immersion, wiping, irrigation
Couveuses, anesthesia breathing system accessories, anesthesia equipment	0.05 0.1	30 15	Wiping, immersion
Production equipment	0.05 0.1	60 30	Wiping or irrigation
Garbage chutes, containers and bins	0.05	60	Wiping or irrigation

Table 3 – Regimens of disinfection using Desochlorine Disinfectant solutions in case of viral infections (poliomyelitis, enterovirus infections, Cocksackie virus, ECHO, enteric and parenteral hepatitis, HIV infection; influenza and other acute respiratory viral infections, coronavirus (HCoV-229E, CCV, SARS-CoV, COVID-19 (SARS-CoV-2), etc.), H5N1 bird flu, herpetic, adenovirus and other infections)

Object to be disinfected	Concentration of free chlorine in work solution, %	Time of disinfection, min	Method of disinfection
Surfaces in rooms (floor, walls, door, etc.), hard furniture, sanitary transport	0.05 0.1	60 30	Wiping or irrigation
Tableware without food residue	0.05	15	Immersion
Tableware (including disposable items) with food residue	0.1	120	Immersion
Laboratory glassware (including disposable items)	0.1	120	Immersion
Linen uncontaminated with body fluids	0.05	60	Soaking
Linen contaminated with body fluids (urine, feces, blood)	0.2 0.3	120 60	Soaking
Toys	0.06	15	Immersion, wiping or irrigation
Items for taking care of patients	0.06 0.1	90 60	Immersion or wiping
Urine	0.05 (0.111 L of concentrate per 1 L of urine) 0.1 (0.333 L of concentrate per 1 L of urine)	30 15	Covering with concentrated agent
Sanitary equipment	0.05 0.1	120 60	Double wiping or double irrigation with interval of 15 min
Cleaning tools	0.2 0.3	120 60	Soaking (immersion)
Trolleys, bags and cabinets for linen	0.05 0.1	30 15	Immersion, wiping, irrigation
Couveuses, anesthesia breathing system accessories, anesthesia equipment	0.05 0.1	30 15	Wiping, immersion
Production equipment	0.05 0.1	60 30	Wiping or irrigation
Garbage chutes, containers and bins	0.05	60	Wiping or irrigation

Table 4 – Regimens of disinfection using solutions of Desochlorine Disinfectant in case of tuberculosis

Object to be disinfected	Concentration of free chlorine in work solution, %	Time of disinfection, min	Method of disinfection
Surfaces in rooms (floor, walls, door, etc.), hard furniture, sanitary transport	0.06	60	Wiping or irrigation
	0.1	30	
Tableware without food residue	0.045	60	Immersion
	0.06	30	
Tableware (including disposable items) with food residue	0.3	180	Immersion
Laboratory glassware (including disposable items)	0.3	180	Immersion
Linen uncontaminated with body fluids	0.06	60	Soaking
Linen contaminated with body fluids (urine, feces, blood)	0.3	120	Soaking
Toys	0.06	30	Immersion, wiping or irrigation
	0.1	15	
Items for taking care of patients	0.2	60	Immersion or wiping
	0.3	45	
Urine	1:1 (L)	60	Covering with concentrated agent
Sanitary equipment	0.1	90	Double wiping or double irrigation with interval of 15 min
	0.2	60	
Cleaning tools	0.3	120	Soaking (immersion)
Trolleys, bags and cabinets for linen	0.1	30	Immersion, wiping, irrigation
Couveuses, anesthesia breathing system accessories, anesthesia equipment	0.1	30	Wiping, immersion
Production equipment	0.1	60	Wiping or irrigation
Garbage chutes, containers and bins	0.1	60	Wiping or irrigation

Table 5 – Regimens of disinfection using solutions of Desochlorine Disinfectant in case of candidosis

Object to be disinfected	Concentration of free chlorine in work solution, %	Time of disinfection, min	Method of disinfection
Surfaces in rooms (floor, walls, door, etc.), hard furniture, sanitary transport	0.06	60	Wiping or irrigation
	0.1	30	
Tableware without food residue	0.06	30	Immersion
Tableware (including disposable items) with food residue	0.2	120	Immersion
Laboratory glassware (including disposable items)	0.2	120	Immersion
Linen uncontaminated with body fluids	0.06	60	Soaking
Linen contaminated with body fluids (urine, feces, blood)	0.2	60	Soaking
Toys	0.1	30	Immersion, wiping or irrigation
Items for taking care of patients	0.2	30	Immersion or wiping
Urine	0.1 (0.333 L of concentrate per 1 L of urine) 1:1 (L)	60	Covering with concentrated agent
		30	

Sanitary equipment	0.1	60	Double wiping or double irrigation with interval of 15 min
Cleaning tools	0.2	60	Soaking (immersion)
Trolleys, bags and cabinets for linen	0.1	30	Immersion, wiping, irrigation
Couveuses, anesthesia breathing system accessories, anesthesia equipment	0.1	30	Wiping, immersion
Production equipment	0.1	60	Wiping or irrigation
Garbage chutes, containers and bins	0.1	60	Wiping or irrigation

Table 6 – Regimens of disinfection using Desochlorine Disinfectant solutions in case of dermatophytes

Object to be disinfected	Concentration of free chlorine in work solution, %	Time of disinfection, min	Method of disinfection
Surfaces in rooms (floor, walls, door, etc.), hard furniture, sanitary transport	0.06	60	Wiping or irrigation
	0.1	30	
Laboratory glassware (including disposable items)	0.2	60	Immersion
	0.3	45	
Linen uncontaminated with body fluids	0.06	120	Soaking
Linen contaminated with body fluids (urine, feces, blood)	0.2	120	Soaking
Toys	0.1	60	Immersion, wiping or irrigation
Items for taking care of patients	0.2	60	Immersion or wiping
Sanitary equipment	0.1	120	Double wiping or double irrigation with interval of 15 min
Rubber mats	0.1	120	Immersion or wiping
Cleaning tools	0.2	120	Soaking (immersion)
Trolleys, bags and cabinets for linen	0.1	60	Immersion, wiping, irrigation
Couveuses, anesthesia breathing system accessories, anesthesia equipment	0.1	60	Wiping, immersion
Production equipment	0.1	60	Wiping or irrigation
Garbage chutes, containers and bins	0.1	60	Wiping or irrigation

Table 7 – Regimens of disinfection of medical equipment using Desochlorine Disinfectant solutions

Type of infection	Concentration of free chlorine in work solution, %	Time of disinfection, min	Method of disinfection
Viral and bacterial (except tuberculosis)	0.06	90	Immersion
	0.1	60	
Viral and bacterial (except tuberculosis) and candidosis	0.2	30	Immersion
Viral and bacterial (including tuberculosis) and fungal (candidosis, dermatophytosis)	0.2	60	Immersion
	0.3	45	

Table 8 – Regimens of disinfection using Desochlorine Disinfectant solutions during general cleaning in treatment and preventive and child care institutions.

Institution	Concentration of free chlorine in work solution, %	Time of disinfection, min	Method of disinfection
Child care institutions	0.015 0.03	60 30	Wiping or irrigation
Operating rooms, dressing, procedure, manipulation rooms, clinical laboratories, sterilization units of surgical, gynecological, urological, dental departments and inpatient departments, birthing suites of obstetric inpatient departments	0.015 0.03	90 60	Wiping or irrigation
Ward departments, functional diagnostics rooms, physical therapy, etc. in treatment and preventive institution of any profile (except infectious)	0.015 0.03	60 30	Wiping or irrigation
Anti-tuberculosis treatment and preventive institutions	0.015 0.06 0.1	120 60 30	Wiping or irrigation
Infectious treatment and preventive institutions	0.015 0.06 0.1	120 60 30	Wiping or irrigation
Dermatovenerologic treatment and preventive institutions	0.015 0.06 0.1	120 60 30	Wiping or irrigation

Table 9 – Regimens of disinfection using Desochlorine Disinfectant solutions for mould fungi lesion

Object to be disinfected	Concentration of free chlorine in work solution, %	Time of disinfection, min	Method of disinfection
Surfaces in rooms (floor, walls, hard furniture)	0.1 0.2	30 15	Double wiping or double irrigation with interval of 15 min
Soft surfaces, i.e. carpet and other flooring, upholstery, soft furniture	0.1 0.2	60 30	Double brushing
Tableware with food residue	Undiluted	90	Immersion
Laboratory and pharmaceutical glassware	Undiluted	90	Immersion
Contaminated linen, cleaning tools, dustcloths	Undiluted	90	Soaking

Table 10 – Regimens of disinfection of shoes using Desochlorine Disinfectant solutions

Object to be disinfected	Concentration of work solution, %	Exposure, min			Method of disinfection
		candidosis	dermatophytes	yeast-like fungi	
Leather, artificial leather and fabric shoes	0.1	30	60	60	Wiping
	0.2	15	30	30	
	Undiluted	5	15	15	
Plastic and rubber shoes	0.1	30	60	60	Soaking
	0.2	15	30	30	
	Undiluted	5	15	15	

Table 11 – Regimens of disinfection using Desochlorine Disinfectant solutions in case of especially dangerous infections

Object to be disinfected	Concentration of work solution (by agent), %	Exposure, min			Method of disinfection
		Plague	Cholera	Tularemia	
Surfaces in rooms, hard furniture, surfaces of devices and machines	0.2	-	60	-	Irrigation
	0.3	60	-	60	
Sanitary equipment	0.2	-	60	-	Irrigation
	0.3	60	-	60	

4. Precautions

- 4.1 Persons aged under 18 years old and with increased sensitivity to chlorine-containing agents should not work with disinfectant.
- 4.2 You can clean by wiping with the help of 0.015% solutions (by active chlorine) in the presence of people.
- 4.3 If you work with 0.03-0.06% solutions (by active chlorine), personal respiratory protection is not required. However, work in the absence of people.
- 4.4 If you work with solutions containing 0.1% and higher active chlorine by wiping and irrigation methods, protect your respiratory tract with universal respirators and eyes – with protective spectacles. Conduct the treatment in the absence of people. Air the processed rooms for at least 15 minutes until an odour of chlorine disappears.
- 4.5 Avoid contact with your eyes and skin when working with disinfectant solutions.
- 4.6 Protect your hands with the help of rubber gloves when working with disinfectant solutions.
- 4.7 Put the lids on the containers with work solutions when processing by immersion (soaking).
- 4.8 Store disinfectant separately from drugs in places unreachable to children.

5. First aid

- 5.1 If precautions are not followed, respiratory irritation (irritation in the throat, cough, excessive nose discharge, rapid breathing; pulmonary edema is possible) and mucous membranes of the eyes (lacrimation, smarting and itching in the eyes), headache can appear. When the first signs of acute irritation of the respiratory tract appear, it is necessary to stop the work immediately, take the victim out to fresh air or well-ventilated area, provide rest, warm, rinse the throat, mouth, and nose and give a warm drink. Seek medical advice if necessary.
- 5.2 If disinfectant gets on the skin, wash it off immediately with a stream of water.
- 5.3 In case of contact with eyes, rinse them under running water for several minutes. In case of irritation of mucous membranes, drip 20% or 30% sodium sulfacyl solution into eyes.
- 5.4 If disinfectant enters the stomach, give the victim a few glasses of water with 10-20 crushed tablets of activated carbon. Seek medical advice if necessary.

6. Physical and chemical and analytical methods of quality control used for ONIKO DESOCHLORINE Disinfectant

- 6.1 According to organoleptic indicators, disinfectant should meet the requirements shown in Table 12.

Table 12 – Organoleptic indicators

Indicator	Norm for	Control method
Appearance	Clear homogeneous fluid	According to 6.2
Odour	Odour of raw material (chlorine)	According to 6.2
Colour	Colour of raw material	According to 6.2

6.2 According to physico-chemical indicators, the disinfectant should meet the requirements listed in Table 13.

Table 13 – Physical and chemical indicators

Indicator	Norm	Control method
Hydrogen index, pH	9	According to 6.3
Mass concentration of active chlorine, g/L, not less	4	According to 6.4

6.3 **Sampling** – for sampling, one unit per a consumer container of disinfectant is taken.

6.4 **Determination of appearance and odour** is performed for all units of the samples taken in daylight without any magnifying devices by visual method.

Disinfectant is pre-poured into a clear colorless beaker or flask. An odour is controlled by organoleptical method.

6.5 **Determination of hydrogen index (pH)** is performed by potentiometric determination of pH.

6.5.1 Equipment:

- pH meter equipped with a magnetic stirrer.
- beaker with capacity of 50 cm³.
- water free of carbon dioxide.

6.5.2 Procedure of the trial:

- Transfer 2.0 g of disinfectant to a beaker with capacity of 50 mL, add 20 mL of water free of carbon dioxide, stirred with the help of a magnetic stirrer to form homogeneous mixture and measure pH.

6.6 **Determination of mass concentration of active chlorine.**

6.6.1 Devices, glassware and reagents:

- clock of any type according to current regulations;
- volumetric flask 1-250-2 according to current regulations;
- pipette 1-10 according to current regulations;
- cylinder 2-50 according to current regulations;
- flask Kn 1-250 according to current regulations;
- potassium iodide according to current regulations, 10% solution;
- sulfuric acid according to current regulations, 0.1 N solution;
- sodium sulfate (sodium thiosulfate) according to current regulations, 0.1 N solution;
- soluble starch according to current regulations, 1% solution, freshly prepared;
- distilled water in accordance with current regulations.

6.6.2 Procedure of the trial:

Pipette 10 cm³ of the test agent and transfer it to a volumetric flask, make up the volume of the solution with water and mix thoroughly. Then pipette 10 cm³ of the resulting solution into a conical flask, add 5 cm³ of potassium iodide, 25 cm³ of sulfuric acid, mix thoroughly, cover with a stopper and allow to stand in a dark place for 3 minutes. Then titrate with sodium sulfate to a straw-yellow color, add 1 cm³ of starch solution and titrate until the solution is discolored.

6.6.2 Result processing

Content of active chlorine (Ca) expressed as g/dm³ is calculated by the following formula:

$$X_a = \frac{V \cdot 0,003545 \cdot 250 \cdot 1000}{10 \cdot 10}, \quad (1)$$

Where V – volume of precisely weighted quantity of 0.1 n. of sodium sulfate solution used for titration, cm³;

- 0,003545 – amount of chlorine corresponding to 1 cm³ of precisely weighted quantity of 0.1 n. of sodium sulfate solution, g;
- 250 – total volume of the test solution, cm³;
- 10 – aliquot of the test solution, cm³;
- 10 – volume of the test agent, cm³.

- 6.7 **Quality of packaging and marking** is checked visually.
- 6.8 **Container content control** – volume of disinfectant per a packaging unit is controlled with the help of a graduated cylinder according to current regulations. The test result is considered as an arithmetic mean of at least five measurements.
- 6.9 It is allowed to use other control methods, developed and approved in the established order.

7. Transportation and storage

- 7.1 Disinfectant is fireproof and explosion-proof.
- 7.2 Transportation of ONIKO DESOCHLORINE Disinfectant is possible with all types of land, water and air transport in the original packaging of the manufacturer in accordance with the shipping rules, applicable to each type of transport and guaranteeing the preservation of agent and containers. Transportation is possible at the temperature of 0°C to +40°C.
- 7.3 Store disinfectant in the covered and ventilated rooms in the original packaging at the temperature of 0°C to +40°C in places unreachable to children, separately from drugs and food products.
- 7.4 In case of accidental spillage of concentrated agent, it should be collected in containers and diluted with plenty of water before draining into the sewer. Rinse off the residues on the floor with plenty of water, avoiding neutralization with acid, as this can release gaseous chlorine.
- 7.5 When conducting the disinfection work, personnel should use personal protective equipment: for respiratory organs – universal respirators, for eyes – protective spectacles, for hands – rubber gloves.
- 7.6 Environmental protection: do not allow the concentrate to enter sewage, surface or ground water and into the sewer.