

DISINFECTANT

to decontaminate railroads and the underground

“DEZAVID-T”

***APPLICATION
INSTRUCTION***



**Certificate of the Russian Federation State Sanitary Epidemic Commission
№ 77.99.36.2.У.14836.12.05 от 22.12.2005**



**Certificate of the Russian Federation State Committee on Standards
№ POCC RU.XII09.B01109 от 30.01.2006 г.**

This instruction is intended for washing and cleaning brigades of railroads and the underground, and the personnel of preventive disinfection sections and State sanitary and epidemic surveillance centers at railroads and the underground.

1. Application range

The “DEZAVID” disinfectant is recommended for preventive and medical disinfection of premises, furniture, and sanitary at the Russian railroad and underground facilities, including railroad and tube stations, passenger carriages of various types, auxiliary and special carriages, restaurant carriages and buffets, and departmental stationary objects.

2. Composition and characteristics of the “DEZAVID” disinfectant

2.1. The preparation is a colorless clear liquid. It is composed of the following active substances (AS):

- polyhexamethyleneguanidine hydrochloride (PGMGI), -2,7%
- alkylbenzildimethylammonium chloride (Quaternary ammonium salts - QAS) - 0,5.%
- drinking water – up to 100%

The warranty for expiry of the preparation is 3 years if the manufacturer’s packaging is not opened; working solutions retain their characteristics for 7 days.

2.2. The preparation has microbicide activity as regards bacteria (including mycobacteria of tuberculosis), viruses, and fungi of *Candida* and *Trichophyton*.

2.3. By high toxicity parameters the preparation falls into the 4th class of low hazard substances (according to the State Standard 12.1.007-76) when entering the stomach or hitting the skin, is low hazardous when its volatile components are inhaled, its concentrate does not cause local irritation if affecting the skin or mucous membranes of eyes once, does not have sensibilizing action. Its working concentrates, if applied ones, do not cause local irritation. Recommended working solutions of the “DEZAVID” preparation do not have negative effect on surfaces made of colored plastic or marble, as well as on surfaces covered with vinyl leather and other surfaces designed for passenger means of transport.

2.4. The preparation is harmless to humans, animals and the environment.

2. Preparation of working solutions

3.1. To prepare working solutions the “DEZAVID” preparation is mixed with a required amount of clean water from water pipes. Working solutions ought to be made at the places of their application (i.e. points of equipping and turnover of trains, railway and underground stations, and municipal objects) in enamel (enamel must be flawless) or plastic ware. Working solutions should be prepared in accordance with the proportions shown in Table No. 1.

Table No. 1

Preparation of working solutions of the “DEZAVID”

<i>Concentration of a working solution, (%)</i>		<i>Amounts of ingredients (ml) required to prepare:</i>			
		<i>1 liter of the solution</i>		<i>10 liters of the solution</i>	
<i>by preparation</i>		<i>the preparation</i>	<i>water</i>	<i>the preparation</i>	<i>water</i>
1		10.0	990.0	100.0	9900.0
5		50.0	950.0	500.0	9500.0

4. Use of the “DEZAVID” preparation for preventive disinfection

4.1. For **preventive** disinfection of railway transport objects, including passenger and auxiliary carriages, and underground wagons, application of 1% solutions of the “DEZAVID” disinfectant calculated as 100 ml per 1 square meter of the disinfected surface is recommended. Disinfection is performed by rubbing surfaces of premises, floors, items of equipment and furniture, and sanitary. The time of treatment is at least 60 minutes. Aeration of the premises is not required.

Sanitary is disinfected with a brush or a wire brush, or by rubbing with rags moistened in a preparation grout. The rate of consumption for a double disinfection is 300 ml per 1 square meter. On completion of disinfection sinks and lavatory pans should be cleansed with clean running water.

4.2. Modes of preventive disinfection of railway and underground transport objects are shown in Table No.2.

Table No.2.

Modes of preventive disinfection of objects with the “DEZAVID” preparation

Object of disinfection	Concentration of the working solution (by preparation),%	Disinfection time, min.	Disinfection mode
Surfaces of compartments inside carriages, at railway stations and underground objects, including rubber hand-rails of escalators and marble surfaces	1	60	Single rubbing
Seats and berths covered with vinyl leather	1	60	Single rubbing
Sanitary appliances of carriages, at railway stations and underground objects	1	60	Double rubbing at a 15 minutes interval
Supporting hand-rails inside carriages	1	60	Single rubbing
Litter-bins inside carriages	1	60	Double rubbing at a 15 minutes interval
Cleaning inventory	3	60	Soaking

When preventive disinfection of railway transport objects, including passenger and auxiliary carriages, and underground wagons is performed by conductors or washing teams it is recommended that the “DEZAVID” solutions be used in rubbing mode only.

4.3. Passenger carriages of long-distance and intercity trains. Taken their peculiarity and unlike all other objects, for passenger carriages of long-distance trains 2 types of preventive disinfection exist, i.e. the partial disinfection between runs and the full preventive disinfection.

The partial disinfection of passenger carriages between runs is performed in points of forming and turnover of trains.

Preventive disinfection in points of forming and turn-over of trains is conducted with a 1% solution of the "DEZAVID" preparation by rubbing all inner surfaces of a passenger carriage, i.e. walls, niches, berths, tables, inner surfaces of windows, outer and inner surfaces of lockers, doors and in particular door-handles in passenger and conductor compartments; walls, jump seats, inner surfaces of windows, and hand-rails in the corridor; glass-ware wash sinks in conductor compartments; walls and sanitary of toilets, litter-bins (double rubbing), exit doors and hand-rails of the carriage. After at least a 60-minute exposure disinfected surfaces ought to be rubbed with dry rags. Then the rags need to be soaked in a 3% solution of the "DEZAVID" preparation for at least 60 minutes, then rinsed in clean water and dried.

Passengers of long-distance trains must be provided mainly with disposable plates and dishes. While traveling sanitary treatment of nonexpendable plates and dishes is performed by rinsing them with warm water mixed with baking soda.

The full preventive disinfection of passenger carriages in long-distance trains implies not only sanitary treatment and disinfection of inner surfaces of a carriage but a dispatch of all bed linen as well (mattresses, pillows, and blankets) for chamber decontamination at least once in a quarter. When the full preventive disinfection of passenger carriages in long-distance trains is conducted a 1% solution of the "DEZAVID" preparation is also recommended for disinfection of surfaces, arm-chairs and seats made of vinyl leather. En-route disinfection of passenger trains with the use of a disinfectant is performed only as regards the sinks in conductor compartments and toilets; the disinfection is made with a 1% solution of the preparation by rubbing surfaces; lavatory pans are disinfected with a wire brush. Aeration of the compartments is not obligatory.

4.4. Restaurant carriages and buffets of passenger long-distance and intercity trains. Preventive disinfection in points of forming and turn-over of trains is conducted with a 1% solution of the "DEZAVID" preparation by rubbing all inner surfaces of a carriage, including walls, the floor, tables, counters, chairs, inner surfaces of windows, window hand-rails, doors, wash sinks, sanitary, entrance hand-rails, and exit doors of the carriage. After a 60 minute exposure disinfected surfaces ought to be rubbed with dry rags. Then the rags need to be soaked in a 3% solution of the "DEZAVID" preparation for at least 60 minutes, rinsed in clean water and dried.

While traveling, nonexpendable used plates and dishes, cups, glasses, knives and forks, etc. are cleaned of leftovers and washed with warm or hot water mixed with baking soda.

4.5. Carriages of suburban first-class trains. Sanitary treatment with a 1% solution of the "DEZAVID" preparation is performed in points of forming and stand-by of passenger trains daily. Disinfection is conducted in regard of the floor, inner surfaces of windows, walls, luggage racks, doors and handrails, arm-chairs made of vinyl leather, sanitary compartments and equipment. Armchairs covered with fleecy fire-resistant fabric are vacuum cleaned during preparation for the next run. Such armchairs must be equipped with headrests and soft covers that need to be changed after every passenger.

4.6. Auxiliary and special carriages. Disinfection of inner surfaces of passenger compartments en-route and in points of forming and turnover of trains is conducted similar to the above "Passenger carriages of long-distance trains".

4.7. Railway stations. Preventive disinfection of passenger premises at railway stations is conducted daily with a 1% solution of the "DEZAVID" preparation. Particular care is taken of waiting halls, childcare rooms, first-aid rooms, buffets and cafeteria, toilets and sanitary, hand luggage storages, and litter-bins. The walls of toilets are disinfected up to the height of at least 1.5 meters.

4.8. Underground stations and carriages. When preventive disinfection of underground stations, auxiliary premises, and passenger carriages is conducted a 1% solution of the "DEZAVID" preparation is recommended (See: Table 2). Preventive disinfection of underground carriages is performed by wash teams in points of forming and turnover of trains once a day. Preventive disinfection of underground stations is conducted by cleaning brigades every night.

4.9. Departmental stationary objects. including locomotive crew lounges and preventoriums. Daily application of 1% solutions of the preparation is recommended

5. Application of the "DEZAVID" preparation for nidus disinfection (current and final)

The "DEZAVID" disinfectant can be applied effectively not only for preventive disinfection, but for disinfection by epidemic evidence, both current (with an infected patient, or a suspect infected person present) and final disinfection (after an infected patient, or a suspect infected person has been isolated).

In such cases 5% working solutions are used.

When current or final disinfection is performed in departmental institutions, the "Application instruction and quality control methods of the "DEZAVID" disinfectant ("Adequate Technologies, Ltd.", Russia)" worked out by the Disinfection Sciences Research Centre ought to be followed.

If an infected or a suspect infected passenger has been located en-route the conductor of the passenger carriage advises the trainmaster who arranges anti-epidemic measures in accordance with the working "Instruction on the anti-epidemic measures when passengers with acute intestinal infectious diseases or food poisoning have been located en-route, and the procedure of epidemic investigation" (See: СП 2.5.12.20-98 "Sanitary and medical rules of railway passenger traffic", 1998)

Final disinfection of departmental stationary objects, including preventoriums, child care centers, etc. is performed by specialist disinfection institutions; current disinfection in preventoriums and child care centers is conducted by their medical staff, respectively.

6. Safety precautions

6.1. If the preparation hits the eyes rinse them with water.

6.2. If the preparation enters the stomach drink several glasses of water with 10-20 crushed tablets of activated charcoal.

6.3. Working solutions of the preparation may be used with people present.

7. Transportation, packaging and storage

7.1. The preparation may be transported by all types of transport in accordance with the rules of transportation that are in effect for each type of transport and guarantee undamaged packaging.

7.2. The preparation ought to be stored in places hidden from direct sunlight, with air temperatures of 0 to 35 degrees Celsius.

№	Name of the preparation	Manufacturer	Specification	Range of activity						Concentration of working solutions, %	
				Bacteria	TB agent	Fungi	Viruses			for preventive disinfection and washing	for disinfection by epidemic evidence
							Flu and other viral respiratory infections	hepatitis	HIV		
1	“DEZAVID”	“Adequate Technologies, Ltd”	9392-001-49340960-2003	+	+	+	+	+	+	0,5 -1	3-5
