

- NON TOXIC
- NO ALCOHOL
- NO BLEACH
- NON CARCINOGENIC • NON - SCENTED











MEDICAL INSTITUTIONS

Product name: BIOTECplus Total Disinfection

Product class: Disinfectant- Sanitizer

DESCRIPTION - QUATERNARY DISINFECTANT CLEANER is a concentrated, cost-effective

germicide based on a blend of quaternaries and surfactants. It cleans, disinfects, and deodorizes with a

neutral pH in dilution.

Product Composition and usage

Name	CAS#	TLV/PEL	%weight
N-Alkyl Dimethyl Benzyl Ammonium	85409-22-9	N/A	1
Chloride N-Alkyl Dimethyl Ethyl Benzyl Ammonium	8001-54-5	N/A	1
Chloride Water	7732-18-5	N/A	98

BIOTECplus it is a powerful disinfectant that inhibits bacteria, fungi, algae, and viruses in the same application. It is broad spectrum, fast acting and has a prolonged action.

General Characteristic:

- 1. 100% Biodegradable
- 2. It is effective in the presence of organic matter
- 3. Non flammable
- 4. Stable PH 3 to 11.
- 5. It does not lose its properties in the presence of ultraviolet rays.
- 6. Odorless, colorless, slightly bitter taste.
- 7. You do not need gloves or a mask for its use.
- 8. Non-toxic, it is not absorbed through the skin nor cause sensitization or irritation(Non systemic)
- 9. It does not emanate fumes or toxic gases.
- 10. It is not carcinogenic.(manufactured and used 14+ years)
- 11. 100% Safe for humans.
- 12. Effective against different types of microorganisms in the same application (certified against Human Corona)











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BIOTECPlus is a "Biodegradable" compound that effectively controls: Gram (+) and gram (-) bacteria, fungi, algae and viruses; it is non-toxic, non-irritating to the skin; It has no corrosive effects on metals or other materials such as natural or synthetic rubber, plastics and polyethylene; It has effective action in the presence of organic matter (pus, blood, urine, feces); acts in hard water up to 550 ppm CaCO3 and temperatures up to 80 ° C. It acts in solutions with PH ranges from 3 to 11 and its residual effect may last from 3 to 5 days. Thirty days in isolated areas.

It is recommended for complete disinfection of floors, walls, countertops, bathing areas, laboratories, bedframes, tables, chairs, garbage pails and other hard nonporous surfaces in hospitals, nursing homes and other health care institutions.

Critical and semi-critical items, such as objects and surgical instruments that eventually will encounter tissues and organs can also be disinfected.

MECHANISMS

BIOTEC plus action includes physical and chemical processes through its positively charged (cations) neutralizing the negatively charged (anions) cell wall of the microorganisms given by the presence of phospholipids. This neutralization allows BIOTECplus adhesion and penetration of the microorganism cell wall.

Subsequently altering the permeability of the cell membrane of the microorganism. This alteration causes loss of essential elements, chemical and morphological enzymes, and protein denaturation.

Finally, through plasmolysis, total precipitation of cytoplasmic contents, including cell membrane and nucleus, leave the cell unable to survive, replicate or generate a resistant offspring by genetic mutation.

This mechanism of action prevents the creation of resistance of microorganisms to BIOTECplus

Unlike traditional germicides, BIOTECplus has a surfactant component that reduces the surface tension of solutions, allowing these to penetrate cavities, cracks, and porosities, achieving complete disinfection.











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Control Measures

Where BIOTECplus fits in with your protocol

	CLINICS AN	D HOSPITALS				
1	AREAS	APPLICATION				
Sterilization of anesthesia equipment, respiratory therapy, surgical instruments, optical, dental, thermometer, plastic objects.		Immersion of tools, 15 minutes. Air dry and can be used immediately. Use pure solution.				
delivery	ion of intensive care rooms, operating and rooms, surgery room, emergency rooms, s disease rooms and non-contagious areas	Apply with electrical Sprayer or fogger after cleaning. Use pure solution. Allow to dry or wait 15 minutes				
	ion of kitchens, tables, utensils, floors, orage rooms.	Use pure solution, fogging and spraying in cleaned all areas. Let dry.				
Disinfect garments	ion of clothes, blankets, and other s.	Apply at final rinse. Use pure solution.				
Applicati	ons in siphons and pipes.	Add pure solution.				

LABOR	LABORATORIES				
AREAS	APPLICATION				
Disinfection of production areas and safety zones.	Spray or mist floors walls and ceilings. Use pure solution. Let dry.				
Disinfection of equipment	Solution. Spraying or fogging. Let dry.				
Lab ware (plastic, rubber, glass).	Immerse in solution for 15 minutes. Let dry				
HIV/ hepatitis area, Incubators Observation beds Stretchers/handrails Sinks, Bathrooms, Cold room refrigerators	Solution. Spraying or fogging 15 min. Let dry.				
Hand disinfection. (Use Sprayer) and allow to air dry.	Solution, works on contact				











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BIOTECplus controls Gram (+) and Gram (-) Bacteria, Algae, Fungi and Viruses

GRAM POSITIVE BACTERIA

Bacillus megaterium Bacillus subtilis Rhodococcus erythropolis Brevibacterium linens Corynebacterium glutamicum Lactobaci||us plantarum Lactobaci||us rhamnosus Mycobacterium smegmatis Mycobacterium tuberculosis Staphylococcus aureus Streptomyces lividans Bacillus subtilis Bacillus megatherium Bacillus Cereus Bacillus Cereus var. Mycoides Clostridium botulinium Clostridium tetani Propionibacterium acnes Corynebacterium diphtheriae Crynebacterium minutissium Streptococcus pneumoniae Lactobacillus Arabinosus Lactobacillus casei Listeria Monocytogenes Mycobacterium tuberculosis Mycobacterium smegmatis Mycobacterium Phlei Sarcina Lutea Sarcina Ureae Staphylococcus aureus Staphylococcus albus Staphylococcus agalactiae Staphylococcus hemoliticus Staphylococcus fecalis Staphylococcus pydogenes Staphylococcus viridians

GRAM NEGATIVE BACTERIA

Aeromonas hydrophila Alcaligenes Faecalis Agrobacterium tumefaciens Azospirillum brasilense Bordetella avium Brevundimonas diminuta Burkholderia cepacia Enterobacter aerogenes Escherichia coli

Burkholderia gladioli Burkholderia vietnamensis Brucella intermedia Brucella abortus Brucella melitensis Brucella suis Chromobacterium violaceum Citrobacter freundii Enterobacter aerogenes Enterobacter cloacae Erwinia amylovora Erwinia carotovora Haemophilus influenza Klebsiella edwardsii Klebsiella aerogenes Klebsiella pneumoniae Legionella pneumoniae Loefflerella pseudomallei Moraxella duplex Moaxella glucidolytica Neisseria catarrhalis Burkolderia capacia Pasteurella séptica Pasteurella pseudotuberculosis Proteus vulgaris Pseudomonas aeruginosa Pseudomonas entomophila

Pseudomonas fluorescens Pseudomonas putida Pseudomas syringae pv. tabaci

GRAM NEGATIVE BACTERIA

Salmonella enteritidis Salmonella choleraesuis Salmonella galinarum Salmonella typhimurium Salmonella typhi Salmonella paratyphi A Salmonella paratyphi B Salmonella pullorum Rhizobium etli Serratia entomophila

Shigella flexneri Variovorax paradoxus

Vibrio harveyi Vibrion cholerae Vibrion elta Xanthomonas axonopodis pv. manihotis LMG 784 Xanthomonas alfalfae pv. alfalfae LMG 497 Yersinia enterocolitica LMG 7899

FUNGI and YEAST

Aspergillus niger Aspergillus fumigatus Candida albicans Epidermophyton floccosum Keratinomyces ajelloi Monilia albicans Saccharomyces cerevisiae Trichophyton mentagrophytes Trichophyton rubrum Trichophyton tonsurans











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EFFECTIVENESS OF THE PRODUCTS AGAINST NATIVE REFERENTIAL BACTERIA STRAINS ENTEROPATHOGENIC AND RESPIRATORY

Enteropathogenic Bacteria	Respiratory Bacteria		
Escherichia coli	Escherichia coli		
Klebsiella spp.	Pasteurella multósida		
Staphylococcus aureus	Bordetella avium		
Salmonella spp.	Ornitobacterium rinotracheale		
Pseudomona spp.	Aviabacterium paragallinarum		

START OF ACTION AND RESIDUAL POWER

DDODLICT	1		2		3		4		;	5
PRODUCT	HOURS	PR	HOURS	PR	HOURS	PR	HOURS	PR	HOURS	PR
BIOTECplus	0	>30 days	0	>30 days	0	>30 days	0	>30 days	0	>30 days
	6 7		8		9		10			
PPODLICT	6		7		8		9		1	0
PRODUCT	HOURS	PR	HOURS	PR	HOURS	PR	9 HOURS	PR	HOURS	O PR

HOURS: Start of Bacterial Inhibition

PR: Residual Power, greater than 30 days

Numbers: Enteropathogenic and Respiratory Bacterial Strains

METHOD: TURBIDOMETRY











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Benefits of BIOTECplus

is tested safe and effective against extreme pathogens existing in medical facilities. The product allows fast turnovers in each department(sanitizer, 15 seconds – disinfectant, 15 min), taking the place of numerous individual cleaners and thus allowing greater efficiency, safer environments, and cost savings to the establishments. The NON-toxic, Biodegradable, Biomedically standardized disinfectant and sanitizer is safe for human contact, is non-abrasive, non-corrosive and is certified internationally.

> BIOTECplus is tested at the Microchem laboratory, Texas USA ISO 17025 Accredited and GLP Compliant Laboratory Microchem maintains compliance with EPA and FDA Good Laboratory Practices BIOTECplus is manufactured using EPA certified active ingredients

Study Title	Test Method			
Antibacterial Activity and Efficacy of BIOTECplus	Modified AOAC Official Method 960.09			
Test Substance for use in medical institutions	Germicidal and Detergent Sanitizing Action of			
	Disinfectants			
	Study Identification Number			
Pseudomonas aeruginosa (bacteria)	NG11206			
Staphylococcus aureus (MRSA- bacteria)	NG11206			
Escherichia coli (bacteria)	NG11409			
Trichophyton interdigitale (fungus)	NG11332			
Human Coronavirus	ASTM E1053, Standard Test Method			
	to Assess Virucidal Activity of Chemicals			
	Study Identification Number			
	NG14878			

Key

MRSA- Methicillin resistant Staphylococcus aureus

Test Facility

Microchem Laboratory, 1304 W. Industrial Blvd Round Rock, TX 78681 (512) 310-8378

*See MSDS and certificates for verification











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Microchem maintains ISO 17025 accreditation through ANSI National Accreditation Board (ANAB). Accreditation provides our clients with additional confidence in the laboratory's quality system and technical competence. In addition to ISO 17025 accreditation, Microchem maintains compliance with EPA and FDA Good laboratory practices (GLPs)

Microchem's current scope of accreditation includes the following standards

- AAMI TIR12- Disinfection Validation- designing, Testing and Labelling Reusable Medical Devices for Reprocessing in Healthcare Facilities: A Guide for Medical device Manufacturers.
- AAMI TIR30- Cleaning Validation- A compendium of processes, materials, test methods, and Acceptance Criteria for Cleaning Reusable Medical Devices
- ISO 11930- Evaluation of the Antimicrobial Protection (Preservation) of Cosmetic Products

This article was created by the manufacturer's YBMS Biotec Ltd. in conjunction with tests carried out using BIOTECplus against respective pathogens existing at hospitals and clinical institutions.



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