



BioShields® 

Applying Science In Disinfection

PRODUCT CATALOGUE





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ABOUT US

BIOSHIELDS® is a division of Tulip Diagnostics Pvt. Ltd. (A PerkinElmer company). Tulip Diagnostics Pvt. Ltd is the leading Indian company among all diagnostic companies, involved in the manufacturing and marketing of in vitro diagnostic reagents and kits, nationally and internationally. Some important international customers include WHO, MSF, UNICEF, CLINTON FOUNDATION, USA etc.

Air, land and water are the three essential elements around which diverse life forms on our planet thrive and survive. Precious human life needs to be protected against the challenge mounted by microbes in day to day life as well as professional settings. Build up of resistance and development of resistant strains continues to challenge preventive healthcare and infection control professionals globally. In this context, a two- pronged strategy of infection / contamination control to protect vulnerable humans is ideal. Attack the microbes both in vivo & in vitro. This means microbes both inside and outside the human body should be neutralized.

The in vivo segment has seen tremendous advancement since the discovery of penicillin in 1928. Recently a 5th generation Cephalosporin was launched which is said to be more effective against resistant strains.

However, in the in vitro segment, no such advanced molecules/ products can be seen. Molecules/ products that are decades old and no longer effective against most of the pathogens that cause nosocomial infections & serious microbial contamination in industries, are still in use.

Sensing the urgent need for good quality products for infection/ contamination control in the in vitro segment, **BIOSHIELDS®** has researched, designed and developed novel, potent , effective and safe disinfectant and antiseptic solutions. **BIOSHIELDS®** products are FDA (India) approved and effective against all pathogens including Methicillin-Resistant Staphylococcus aureus (MRSA), Vancomycin-Resistant Enterococci (VRE), Multi-drug resistant M. tuberculosis, Glutaraldehyde-Resistant M. Cheloni, M. Fortuitum, Multi-drug resistant Gram-ve E.coli etc. All **BIOSHIELDS®** products are validated using ATCC strains.

BIOSHIELDS® believes in "Applying Science in Disinfection ". **BIOSHIELDS®** has range of novel products in different categories that are thoroughly evaluated for their efficacy and performance.

Appropriate accessories are also available to effectively deliver and use **BIOSHIELDS®** products.



INTRODUCTION

Since its inception in 1988, Tulip Group of companies now **Tulip Diagnostics Pvt. Ltd. (A PerkinElmer Company)** has emerged as a leading manufacturer and marketer of In-Vitro Diagnostic Reagents and Kits, Dehydrated Culture Media and High Technology Disinfectant Products nationally and internationally.

Well known for its innovative approach, **Tulip Diagnostics Pvt. Ltd.** specializes in research, development and designing of specific systems and platforms in diverse technological areas covering almost all areas of diagnostic relevance.

Tulip believes in creating '**Better testing systems and products for better diagnosis and preventive health**' and sets trends by innovating continuously.

PRODUCT DEVELOPMENT

While **TULIP DIAGNOSTICS PVT. LTD.**, operates in the following product segments:

- Elisa Tests
- Immunology
- Haemostasis
- Column Agglutination Technology
- Immunohaematology
- Immunoturbidimetry
- High Technology Disinfectants
- Dehydrated Culture Media
- Clinical Biochemistry
- Instrumentation
- Microbiology
- Rapid Tests

MANUFACTURING

The products are manufactured in professionally set up modern facilities complying to relevant FDA guidelines.

The innovativeness is fuelled by an inventive streak with an accent on indigenous technology as a fundamental basis for product development and designing of viable

technological platforms for diagnosis. Production systems have been devised around process flows to achieve consistent product performance, batch to batch and stringent in coming, in process QA ensure adherence to expected performance parameters whereas finished QC benchmarked to standard reference materials ensures accuracy of products.

QUALITY ASSURANCE

The company apply cGMP and GLP in force from time to time and are EN ISO 13485 : 2016 compliant.

HUMAN RESOURCES

The company places great importance to talent garnering and skill development. In-house training programmes are conducted at desired frequency to develop functional proficiency, understanding processes and imparting knowledge. Tulip team is motivated to be responsible and responsive to its customers and business.

NATIONAL SALES

The company's national business is built around 13 branch locations, nationwide with product flow all over the country through a diverse and efficient distributor network that guarantees product availability, maintenance of cool chain and customer responsiveness.

The company has a professional sales team of around 325 sales / service professionals headquartered all over the country to carry forward its customer contact and sales programme; with a customer base of over 22000 customer and 400 distributors.

INTERNATIONAL PRESENCE

Internationally the company channelizes its products and technology through Distributors, NGO's & arrangements with other international companies globally.

The company also offers bulk, OEM and contract manufacturing facilities to various international companies. Currently, the company exports its products to over 96 Countries worldwide, representing over 45% of its turnover.

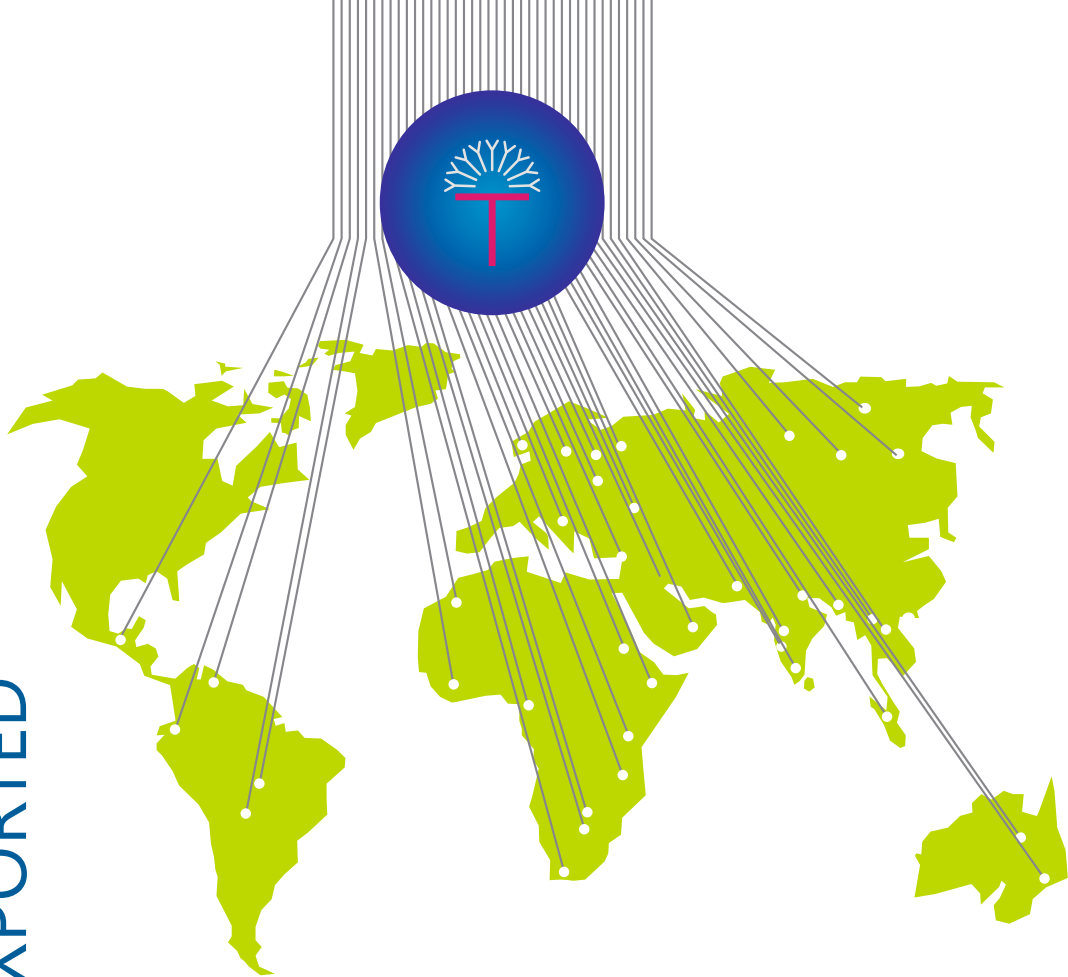
OPPORTUNITIES FOR COLLABORATION

The company is constantly seeking distribution partners in unrepresented countries.

It also seeks competent vendors for various biomaterials, chemicals and instrumentation used in its manufacturing processes.

The company also seeks collaboration with like-minded companies who are looking to commercialize their products and technologies in India utilizing Tulip's deep resources and understanding of the Indian & International business environment.

COUNTRIES AROUND THE WORLD TO WHICH TULIP PRODUCTS ARE EXPORTED



Africa	Cambodia	Belgium	Russia	Papua New Guinea
Angola	China	Denmark	Ukraine	Santiago
Burkina Faso	Indonesia	France	Middle East	Solomon Islands
Cameroon	Iran	Germany	Jordan	Venezuela
Egypt	Japan	Greece	Lebanon	
Ethiopia	Laos	Hungary	Muscat	
Ghana	Malaysia	Ireland	UAE	
Kenya	Mongolia	Italy	Qatar	
Mauritius	Myanmar	Netherlands	South America	
Morocco	Nepal	Poland	Brazil	
Mozambique	Philippines	Portugal	Colombia	
Nigeria	Srilanka	Romania	Guyana	
South Africa	Taiwan	Spain	Ecuador	
Tanzania	Thailand	Switzerland	El Salvador	
Zambia	Vietnam	Turkey	Mexico	
Zimbabwe	Europe	UK	Peru	
Asia	Albania	Russia & CIS	Oceania	
Bangladesh	Austria	Kazhakastan	Australia	

Our trained sales team which believes in knowledge upgradation, provides product application and sales support to the large user base on a continuous basis. We dedicate ourselves to our dear customers and associates whose solid and unflinching support to our appropriate and innovative products over the years continue to strengthen our belief in.

ICONS

BIOSHIELDS® has created appropriate icons for easy visualisation and understanding of the product, application, intended use of any relevant product and product highlights. These icons are especially useful to understand the usage potential of products, as many products have multiple applications. These icons are displayed prominently on the product labels.



Products that are recommended to be used in Household & General settings.



Products that are recommended to be used in General settings & First Aid measure.



Products that are recommended to be used mainly on the skin and are skin safe.



Products that are recommended to be used in Medical settings.



Products which have a pronounced and proven HIV and HBV cidal action.



Products which are recommended to be used for water disinfection.



Products which have a pronounced and proven Mycobactericidal action.



Products that are recommended to be used for High level disinfection, Sterilization or Cleaning of rigid / flexible scopes with excellent material compatibility



Products that require No Water or Towel after its use.



Products that are recommended for linen disinfection.



Products that are recommended to be used for Disinfection of Surgical Instruments.



Products that are recommended to be used for Disinfection of Dental drills and burs.



Products that are recommended to be used for Industrial settings.



Products that are recommended to be used during Surgical procedures.



Products that are recommended to be used for Aerial Fogging.



Products that are recommended to be used in Food and Hotel Industry.



Products that are recommended to be used as Handwash and Skin safe.



Products that are recommended to be used for Floor mopping.



Products that are recommended to be used in Industrial or Medical settings for Laboratory ware.



HAND DISINFECTANTS

HANDRUBS

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ALCONOX[®]

Alcoholic handrub antiseptic with moisturiser

ALCONOX[®] is a pure alcohol based colourless, non-perfumed powerful hand rub antiseptic, suited for diverse settings requiring rapid microbicidal action and quick drying time.



Cat. No.	Pack Size
ANX0500	500 ml
ANX5000	5000 ml



Composition

50% v/v Isopropyl alcohol (2-Propanol) IP
25% v/v N-Propanol (1-Propanol) BP
Skin emollients

Biocidal Activity

Broad spectrum:
Bactericidal, Fungicidal & Virucidal

Contact Time

30 Seconds

Features & Benefits

Rapid action
Quick drying
Moisturisers for soft feel
Good for sensitive skin

Applications

MEDICAL

Medical disinfection before invasive procedures
Wound dressing
High risk patient care

INDUSTRIAL

In pharmaceutical industry as part of pre-procedural, procedural & post-procedural steps
In food processing and hospitality industry during pre and post handling of food products

GENERAL

Personal hand hygiene
Handling of patients and infants at home
Waterless hand disinfection during travel

Usage Directions

HYGIENIC HAND DISINFECTION - Rub 3 ml of ALCONOX[®] well over clean dry hands and nail groves for at least 30 seconds.

SURGICAL HAND DISINFECTION - Repeat the above process thrice for 5 minutes.

ECOMAX™

Alcoholic handrub with moisturiser

ECOMAX™ is an alcoholic handrub with moisturiser. It prevents cross contamination & leaves skin soft.

Composition

2.5% v/v Chlorhexidine Gluconate Solution IP equivalent to
0.5% w/v Chlorhexidine Gluconate
70% v/v Ethyl Alcohol (Ethanol) IP
Skin Emollients
Perfume
Fast Green FCF as colour

Biocidal Activity

Broad spectrum:
Bactericidal, Fungicidal & Virucidal

Contact Time

30 Seconds

Features & Benefits

Synergistic power
Long-lasting residual activity
Broad spectrum antimicrobial efficacy
Leaves a soothing effect on the skin despite repeated use
More contact time due to slower evaporation
Better spreadability on skin/gloves gives better antimicrobial action

Applications

MEDICAL

Before entering clean rooms/sterile areas like OT, ICU, IPD, NICU, PICU etc.
In OT before wearing gloves
In OT before and after surgery
Before and after handling patients in wards and OPD
In laboratories and ambulances

INDUSTRIAL

R & D labs, clean / sterile areas, production areas of pharmaceutical industry
In food processing / production areas of food / dairy industry

GENERAL

Personal hygiene
Handling and care of patients and infants at home
Waterless hand disinfection during travel



Cat. No.	Pack Size
ECX0100	100 ml
ECX0500	500 ml
ECX5000	5000 ml



Usage Directions

HYGIENIC HAND DISINFECTION – Rub 3 ml of ECOMAX™ well over clean dry hands and nail grooves for at least 30 seconds.
SURGICAL HAND DISINFECTION – Repeat the above process thrice for 5 minutes.

Note :

Also available in Ecomax™-C (Colourless & Odourless alcoholic handrub)

ECOMAX™

Alcoholic handrub with moisturiser

ECOMAX™ is an alcoholic handrub with moisturiser. It prevents cross contamination & leaves skin soft.

Composition

2.5% v/v Chlorhexidine Gluconate Solution IP equivalent to
0.5% w/v Chlorhexidine Gluconate
70% v/v Ethyl Alcohol (Ethanol) IP
Skin Emollients
Perfume
Fast Green FCF as colour

Biocidal Activity

Broad spectrum:
Bactericidal, Fungicidal & Virucidal

Contact Time

30 Seconds

Features & Benefits

Synergistic power
Long-lasting residual activity
Broad spectrum antimicrobial efficacy
Leaves a soothing effect on the skin despite repeated use
More contact time due to slower evaporation
Better spreadability on skin/gloves gives better antimicrobial action

Applications

MEDICAL

Before entering clean rooms/sterile areas like OT, ICU, IPD, NICU, PICU etc.

In OT before wearing gloves

In OT before and after surgery

Before and after handling patients in wards and OPD

In laboratories and ambulances

INDUSTRIAL

R & D labs, clean / sterile areas, production areas of pharmaceutical industry

In food processing / production areas of food / dairy industry

GENERAL

Personal hygiene

Handling and care of patients and infants at home

Waterless hand disinfection during travel



Cat. No.	Pack Size
ECX0100	100 ml
ECX0500	500 ml
ECX5000	5000 ml



Usage Directions

HYGIENIC HAND DISINFECTION – Rub 3 ml of ECOMAX™ well over clean dry hands and nail grooves for at least 30 seconds.

SURGICAL HAND DISINFECTION – Repeat the above process thrice for 5 minutes.

Note :

Also available in Ecomax™-C (Colourless & Odourless alcoholic handrub)

PURELLIUM™ GEL

Alcoholic handrub gel with moisturiser

PURELLIUM™ GEL is a powerful alcoholic handrub gel with moisturiser for surgical as well as hygienic hand disinfection with a rapid bactericidal, fungicidal and virucidal action.



Cat. No.	Pack Size
PLG0100	100 ml
PLG0500	500 ml
PLG5000	5000 ml



Composition

62% v/v Ethyl alcohol (Ethanol) IP denatured with 3.3% v/v Isopropyl alcohol (2-Propanol) IP
Skin emollients
Perfume
Gel base q.s.
Brilliant blue FCF as colour

Biocidal Activity

Broad spectrum:
Bactericidal, Fungicidal & Virucidal

Contact Time

30 Seconds

Features & Benefits

No known resistance
Broad antimicrobial range
Instant biocidal action
Soft feel

Applications

MEDICAL

Before entering clean rooms/ sterile areas like OT, ICU, IPD, NICU, PICU etc.
In OT before and after wearing gloves
In OT before & after surgery
Before and after handling patients in wards and OPD
In laboratories, ambulances

INDUSTRIAL

R & D labs, clean / sterile areas, production areas of pharmaceutical industry.
In food processing / production areas of food / dairy industry.

GENERAL

Personal hand hygiene
Handling of patients and infants at home
Waterless hand disinfection during travel

Usage Directions

HYGIENIC HAND DISINFECTION- Rub 3 ml of PURELLIUM™ GEL well over clean, dry hands and nail grooves for at least 30 seconds until dry.

SURGICAL HAND DISINFECTION – Repeat the above process thrice for 5 minutes

STERIMAX®

Liquid handrub antiseptic with triple action

STERIMAX® is a clear pale blue pleasantly perfumed alcoholic hand rub with a powerful triple action; its suitable for surgical hand disinfection & hygienic hand disinfection

Composition

2.5% v/v Chlorhexidine gluconate solution IP
0.5% w/v Triclosan USP
50% v/v Isopropyl alcohol (2-propanol) IP
25% v/v N-Propanol (1-Propanol) BP
Skin emollients
Perfume
Brilliant blue FCF as colour

Biocidal Activity

Broad spectrum:
Bactericidal, Fungicidal & Virucidal

Contact Time

30 seconds

Features & Benefits

Excellent synergistic action
No known resistance
Broad antimicrobial range
(HIV & HBV)
Instant biocidal action
Long lasting residual action

Applications

MEDICAL

Before entering clean rooms/ sterile areas like OT, ICU, IPD, NICU, PICU etc.
In OT before and after putting the gloves
In OT before and after surgery
Before and after handling patients in wards and OPD
In laboratories, ambulances

INDUSTRIAL

R & D labs, clean /sterile areas, production areas of pharmaceutical industry.
In food processing /production areas of food /dairy industry

GENERAL

Personal hygiene
Handling and care of patients and infants at home
Waterless hand disinfection during travel

Usage Directions

HYGIENIC HAND DISINFECTION - Rub 3 ml of STERIMAX® well over clean dry hands and nail grooves for at least 30 seconds.

SURGICAL HAND DISINFECTION -Repeat the above process thrice for 5 minutes.



Cat. No.	Pack Size
SMX0100	100 ml
SMX0500	500 ml
SMX5000	5000 ml



TRIOSEPT™

Liquid handrub antiseptic with triple action

TRIOSEPT™ is a colourless, non-perfumed alcohol based handrub with a powerful triple action; its suitable for surgical & hygienic hand disinfection especially for perfume and colour sensitive areas and work patterns.



Cat. No.	Pack Size
TST0500	500 ml
TST5000	5000 ml



Composition

2.5% v/v chlorhexidine gluconate solution IP
0.5% w/v Triclosan USP
50% v/v Isopropyl alcohol (2-propanol) IP
25% v/v N-Propanol (1-Propanol) BP
Skin emollients

Biocidal Activity

Broad spectrum:
Bactericidal, Fungicidal & Virucidal

Contact Time

30 seconds

Features & Benefits

No perfume, no colour
Can be preferably used pediatric dept, pharma, food & related industries
Synergistic action
Effective against HIV & HBV
Rapid & residual action
Skin safe
Non sticky & soft feel

Applications

MEDICAL
In NICU, PICU, OT, OPD
Dental setups
In laboratories, ambulances
INDUSTRIAL
In Pharmaceutical industry
In Food processing industry
GENERAL
Personal hygiene
Handling and care of patients and infants
Waterless hand disinfection during travel

Usage Directions

HYGIENIC HAND DISINFECTION- Rub 3 ml of TRIOSEPT™ well over clean dry hands and nail groves for at least 30 seconds.

SURGICAL HAND DISINFECTION – Repeat the above process thrice for 5 minutes

BIOSCRUB™

Antiseptic surgical scrub solution

BIOSCRUB™ is a rapid action, skin safe, microbicidal, antiseptic surgical scrub solution for pre & post-surgery skin and hand disinfection and for cleaning, disinfection and antisepsis of **bed ridden patients**.



Cat. No.	Pack Size
BSB0050	50 ml
BSB0100	100 ml
BSB0500	500 ml
BSB5000	5000 ml



Composition

20% v/v Chlorhexidine gluconate solution IP equivalent to 4% w/v Chlorhexidine gluconate
Non-ionic surfactants
Perfume
Sunset Yellow FCF and Tartrazine as colours

Biocidal Activity

Broad spectrum:
Bactericidal, Fungicidal & Virucidal

Contact Time

3 minutes

Features & Benefits

Can be used for neonates and thyroid patients
Not degraded due to bioburden
Effective in presence of blood, serous fluid, sweat etc.
Non-staining and skin friendly
Contains chlorhexidine gluconate (CHG) which has excellent residual activity (upto 6 hrs)
CHG is recommended by CDC, USA
Has a pleasant perfume
Easy to wash off
Has 33% more shelf than PVI scrub

Applications

MEDICAL

Pre & post-surgery skin and hand disinfection of patients, surgeons and OT personnel
For the cleaning, disinfection and antisepsis of the bed ridden patients

Usage Directions

HYGIENIC SKIN DISINFECTION- Wet the area with water. Apply 3 ml of Bioscrub™ on the wet skin, scrub thoroughly for 3 minutes using a clean cotton ball or gauze and rinse off with water

HYGIENIC HAND DISINFECTION – Wet hands with water. Apply 3 ml of Bioscrub™, scrub thoroughly for 3 minutes and rinse off with water.

SURGICAL HAND/ SKIN DISINFECTION – Wet the area with water. Apply 3 ml of Bioscrub™, scrub thoroughly for 3 minutes and rinse off with water. Repeat the process twice.

HITMAX[®]

Liquid microbicidal handwash soap

HITMAX[®] is a mildly perfumed, clear, blue green liquid-powerful microbicidal handwash soap. It is ideal for settings where clean hands are a prerequisite to safe care and hygiene.



Composition

0.5% w/v Triclosan USP
Skin emollients
Soap base q.s.
Perfume
Brilliant blue FCF as colour

Biocidal Activity

Broad spectrum:
Bactericidal, Fungicidal & Virucidal

Contact Time

60 Seconds

Features & Benefits

Powerful biocidal action
Rapid & residual action
Effective cleanser for organic matter
Pleasantly perfumed with soft feel
Optimized viscosity gives better penetration

Applications

MEDICAL

To scrub & disinfect hands before & after surgery
To scrub & disinfect patient's skin before surgery

INDUSTRIAL

In pharmaceutical industry as part of pre-procedural, procedural & post-procedural steps
In food processing and hospitality industry during pre and post handling of food products

GENERAL

Personal hand hygiene
Handling of patients and infants at home

Usage Directions

Remove all the jewellery. Wet hands with water. Take 3-5 ml of Hitmax[®] & thoroughly distribute over hands. Scrub over for 2-3 minutes & wash off with water.

Also available in Hitmax Neo Colourless & non perfumed liquid microbicidal handwash.

Cat. No.	Pack Size
HMX0100	100 ml
HMX0500	500 ml
HMX5000	5000 ml



POVIDOR™

Antiseptic surgical scrub solution

POVIDOR™ is a rapid action, skin safe, microbicidal, antiseptic surgical scrub solution for pre & post-surgery skin and hand disinfection and for cleaning, disinfection and antiseptics of **bed ridden patients**.



Cat. No.	Pack Size
PSS0100	100 ml
PSS0500	500 mL



Composition

Povidone-Iodine IP 7.5 % w/v
(Available Iodine 0.75 % w/v)

Biocidal Activity

Broad spectrum:
Bactericidal, Fungicidal, Virucidal, Sporicidal. Also effective against yeast & protozoa.

Contact Time

3 minutes

Applications

MEDICAL

For preparation of the skin prior to surgery.

Helps to reduce bacteria that potentially can cause skin infection.

For handwashing to reduce bacteria on the skin.

Significantly reduces the number of microorganisms on the hands and forearms prior to surgery or patient care.

Usage Directions

1. Surgical hand scrub:

Pre-operative scrubbing and washing of hands by surgeons and operation theatre staff.

Wet hands and forearms with water.

Pour about 5 ml of POVIDOR™ Surgical Scrub on to the palm.

Rub the same thoroughly over the entire area for about 2 minutes.

Use a brush if desired.

Add a little water to develop copious suds.

Finally rinse thoroughly under running water.

2. Antiseptic hand wash:

Wet hands with water and pour about 3-5 ml of Scrub on hands.

Rub hands vigorously together for at least 2 minutes, covering all surfaces.

Rinse and dry with a disposable towel.

3. Patient pre-operative skin preparation:

Apply POVIDOR™ surgical Scrub (1 ml is sufficient to cover an area of 20-30 sq. in.)

On the pre-shaved and wet skin.

Rub the same thoroughly for a minimum of 2 minutes.

The lather so developed may be rinsed off with sterile gauze saturated with water.

The area may then be painted with POVIDOR™ antiseptic solution and allowed to dry.

ANTISEPTICS & SKIN PREPARATIONS



ACTALL™ Dual action antiseptic disinfectant solution	17
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SAVINOX® Microbicidal antiseptic solution	19
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SURGIPREP® Antiseptic solution for preparation and post-closure of skin	22
SURGIPREP-CHX™ Antiseptic solution for preparation and post closure of skin	23
ZYTALL® Personal care antiseptic solution	24
POVIDOR™ Antiseptic solution for preparation and post closure of skin	25

ACTALL™

Dual action antiseptic disinfectant solution

ACTALL™ is a clear, caramel coloured solution with a characteristic terpineol fragrance. It is a strong antiseptic disinfectant solution with dual action. It is ideal for broad range of antiseptic and disinfectant applications in diverse settings.



Cat. No.	Pack Size
AAL1000	1000 ml
AAL5000	5000 ml



Composition

2.4% w/v Chloroxylenol IP
0.5% w/v Triclosan USP
12% v/v Isopropyl alcohol (2-Propanol) IP
9% v/v Terpineol BP
Caramel as colour

Biocidal Activity

Broad spectrum:
Bactericidal and Fungicidal

Contact Time

10 minutes

Features & Benefits

Powerful antiseptic
Synergistic formulation
Rapid & residual activity
Less prone to resistance
Skin safe

Applications

MEDICAL

Pre and post-catheterisation
Skin prepping before IV administration
Prevention of dermal infections
Dressing of minor injuries

INDUSTRIAL

In pharmaceutical, food & dairy industry for surface and general purpose disinfection

GENERAL

First aid for cuts, bites, abrasions
First aid
General disinfection

Usage Directions

MEDICAL

Cut, Bites, Abrasions, Insect Stings – Wash with 50 ml ACTALL™ in 1Ltr of water and cover with gauze. For urgent application undiluted ACTALL™ may also be used but not on sensitive skin.

MIDWIFERY

Prepare a dilution of 25 ml ACTALL™ in 1 Ltr of water for routine external antiseptics.

INDUSTRIAL

Prepare a dilution of 25 ml ACTALL™ in 1Ltr of water for floor mopping & surface disinfection.

PERSONAL HYGIENE

Dandruff – Prepare a dilution of 25 ml ACTALL™ in 1 Ltr. Of water and pour over scalp, leave for 10 minutes and shampoo. Do not use undiluted. Bathing – Add 4 to 6 caps of ACTALL™ in the bath is hygienic and refreshing. Sanitation of lavatories, sinks, drains etc – Use undiluted

FOR EPIDEMICS

Prepare a dilution of 25 ml ACTALL™ in 1 Ltr. of water & use for disinfecting linen & floors.

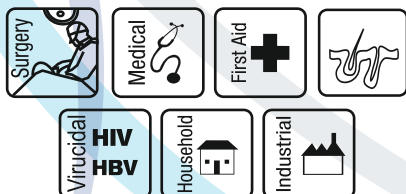
NUSEPT™

Microbicidal antiseptic solution

NUSEPT™ is a clear, green coloured, new generation, powerful, microbicidal antiseptic solution. It is safe and highly effective for medical, pharmaceutical, food & dairy industries and general purpose antiseptics/disinfection.



Cat. No.	Pack Size
NST0100	100 ml
NST0500	500 ml
NST5000	5000 ml



Composition

1% v/v [Poly (hexamethylene biguanide) hydrochloride] (PHMB)

Perfume

Fast green FCF as colour

Biocidal Activity

Broad spectrum:

Bactericidal, Fungicidal and Virucidal

Contact Time

1 minute (undiluted & 10% v/v solution)

5 minutes (5% v/v solution)

10 minutes (2.5% v/v solution)

Features & Benefits

Novel molecule- PHMB

No known resistance

Broad spectrum activity

Non-stinging & skin-safe

Excellent safety profile-

- BI > 1
- LD50 > 2000 mg/Kg of body weight

Applications

MEDICAL

Intra-operative irrigation, Pre & post surgery skin and mucous membrane disinfection, Surgical and non-surgical wound dressings, Chronic wound (Diabetic foot ulcers, pressure ulcers, venous leg ulcers) management, Burn wound management, Surgical bath / SITZ bath, Routine antiseptics during minor incisions, catheterisation, scopy etc. , First aid , Eliminating biofilms

INDUSTRIAL

In pharmaceutical, food & dairy industry for surface and general purpose disinfection

Usage Directions

PRE & POST- SURGERY SKIN CLEANING & DISINFECTION-

Use undiluted

SURGICAL, POST OPERATIVE, NON SURGICAL DRESSING –

Use undiluted, once a day / alternate day

SURGICAL BATH/ SITZ BATH – Add 50 ml of NUSEPT™ in 1 Ltr. of water & use

CHRONIC WOUND MANAGEMENT (diabetic foot, pressure and venous leg ulcers) - Use undiluted

BURN WOUND MANAGEMENT (1st & 2nd degree) – Use 100 ml of NUSEPT™ diluted in 1 ltr sterile water

MIDWIFERY, NURSERY & SICKROOM – Use undiluted

Intra-operative irrigation : Add 50 ml of NUSEPT™ in 1 ltr of water & use

ANTISEPTIS DURING MINOR INCISIONS, SCOPY, CATHETERIZATION, FIRST AID, CUTS, BITES, STINGS ETC : Use undiluted

GENERAL HARD SURFACE DISINFECTION- Add 100 ml of NUSEPT™ in 1 Ltr of water and gently mop the floor or surfaces.

Not recommended for infants below 9 months except on medical advice

SAVINOX®

Microbicidal antiseptic solution

SAVINOX® is a clear, orange coloured solution with a mild perfume. It has broad spectrum activity even in the presence of organic matter. It is an ideally suited antiseptic in a wide variety of settings.



Cat. No.	Pack Size
SVX1000	1000 ml
SVX5000	5000 ml



Complies with the Biocidal Products Directive, 98/8/EC

Composition

0.3% v/v Chlorhexidine gluconate solution IP
0.6% w/v Cetrimide IP
Perfume
Tartrazine and Sunset yellow FCF as colours

Biocidal Activity

Broad spectrum:
Germicidal

Contact Time

1 minute (undiluted),
1 minute (1:3 dilution)

Features & Benefits

Strong synergistic formulation
Non stinging
Rapid action
Broad spectrum activity
Skin safe
Cost effective due to high use dilutions

Applications

MEDICAL

Aseptic management of wounds and burns
Gynaecological applications
Aseptic management of contaminated wounds
First aid

INDUSTRIAL

In pharmaceutical, food & dairy industry for surface and general purpose disinfection

GENERAL

In First aid
For cuts, wounds, bruises and abrasions

Usage Directions

MEDICAL: Dilute 1:3 Savinox® with clean water and apply on the wounds with cotton swabs

INDUSTRIAL: Dilute 1:10 Savinox® for floor mopping & surface disinfection

SAVINOX PLUS®

Microbicial antiseptic solution

SAVINOX PLUS® is a clear, orange coloured solution with a mild perfume. It has broad spectrum activity even in presence of organic matter. It is an ideally suited antiseptic in a wide variety of settings.

Composition

1.5% v/v Chlorhexidine gluconate solution IP
3% w/v Cetrimide IP
Perfume
Tartrazine and Sunset yellow FCF as colours

Biocidal Activity

Broad spectrum:
Germicidal

Contact Time

1 minute (undiluted),
1 minute (1:15 dilution)

Features & Benefits

Strong synergistic action
Non stinging
Rapid action
Broad spectrum activity
Skin safe
Cost effective due to high use dilutions

Applications

MEDICAL

Gynaecological applications
Aseptic management of contaminated wounds & burns management
First aid

INDUSTRIAL

In pharmaceutical, food & dairy industry for surface and general purpose disinfection

GENERAL

In First aid
For cuts, wounds, bruises and abrasions

Usage Directions

MEDICAL

Dilute 1:15 SAVINOX PLUS® with clean water and apply on the wounds with cotton swabs.

INDUSTRIAL

Dilute 1:4 SAVINOX PLUS® for floor mopping & surface disinfection.



Cat. No.	Pack Size
SNP1000	1000 ml
SNP5000	5000 ml



SAVINOX – 5X™

Concentrated microbicidal antiseptic solution

SAVINOX-5X™ is a clear, yellow coloured solution with a mild perfume. It has broad spectrum activity even in the presence of organic matter. It is an ideally suited antiseptic in a wide variety of settings.



Cat. No.	Pack Size
SNX1000	1000 ml
SNX5000	5000 ml



Composition

7.5% v/v Chlorhexidine gluconate solution IP Equivalent to 1.5% w/v chlorhexidine gluconate
15% w/v Cetrimide IP
Perfume
Tartrazine as colour

Biocidal Activity

Broad spectrum:
Bactericidal & Fungicidal

Contact Time

1 minute

Features & Benefits

Strong synergistic action
Non stinging
Rapid action
Broad spectrum activity
Skin safe
Cost effective due to high use dilutions

Applications

MEDICAL

Cleaning and disinfection of equipment and instrument
Post operative wounds, burns management

INDUSTRIAL

In pharmaceutical, food & dairy industry for surface and general purpose disinfection

Usage Directions

MEDICAL

POST OPERATIVE WOUNDS

Use 1:100 SAVINOX-5X™ with water.

PHYSICALLY DIRTY WOUNDS & BURNS

Use 1:20 SAVINOX-5X™ with water

EQUIPMENT & INSTRUMENTS

Use 1:20 SAVINOX-5X™ with water for cleaning and disinfection of equipment & instruments.

FURNITURE & FIXTURES OF HOSPITALS AND STORAGE OF STERILIZED INSTRUMENTS

Use 1:100 SAVINOX-5X™ with water

EMERGENCY DISINFECTION OF INSTRUMENTS AND EQUIPMENT

Use 1:20 SAVINOX-5X™ with DM water & make the volume upto 1L with 95% alcohol.

INDUSTRIAL

Dilute 1:100 SAVINOX-5X™ in water for floor mopping & surface disinfection.

SURGIPREP®

Antiseptic solution for preparation and post-closure of skin

SURGIPREP® is a clear, orange coloured antiseptic solution suited for pre and post-surgical antiseptics. **SURGIPREP®** reduces transient and resident organisms lowering the surgical site infection rates.



Cat. No.	Pack Size
SPP0500	500 ml



Composition

2.5% w/v Benzalkonium chloride solution IP
63% v/v Isopropyl alcohol (2-Propanol) IP
Sunset yellow FCF as colour

Biocidal Activity

Broad spectrum:
Bactericidal, Fungicidal & Virucidal

Contact Time

30 seconds – 2 minutes

Features & Benefits

Rapid disinfection
Degreasing effect
High residual effect
Skin safe
Quick drying

Applications

MAJOR SURGICAL PROCEDURES

Prepping, marking of skin, post-operative dressings, removal of sutures

MINOR SURGICAL PROCEDURE

Incisions, blood collections, scopy, minor injuries, catheterisation

DERMATOLOGICAL APPLICATIONS

Eczematous infections, prophylaxis against mycotic infections

Usage Directions

PREPPING PRIOR TO INCISION – Paint the pre-operative area with sterile swab dipped in SURGIPREP®. Allow to dry, paint again and keep in contact for 2 minutes.

POST CLOSURE – Gently apply SURGIPREP® on and around operation site, over sutures.

DRESSING OF WOUND – Apply a swab moistened with SURGIPREP® on the wound, for complete antiseptic effect.

MINOR PROCEDURE – Apply SURGIPREP® prior to minor procedures i.e. punctures, scops, etc. and allow a contact time of 30 seconds.

SURGIPREP-CHX™

Chlorhexidine antiseptic solution for preparation and post-closure of skin

SURGIPREP-CHX™ is a clear, dark green coloured alcoholic solution suited for pre and post-surgical antisepsis. **SURGIPREP-CHX™** reduces transient and resident organisms lowering the surgical site infection rates. The green dye ensures better skin marking than traditional iodine based solutions.



Cat. No.	Pack Size
SPC0050	50 ml
SPC0500	500 ml



Composition

2.5% v/v Chlorhexidine gluconate solution solution IP
63% v/v Isopropyl alcohol (2-Propanol) IP
Brilliant green as colour

Biocidal Activity

Broad spectrum:
Bactericidal, Fungicidal & Virucidal

Contact Time

30 Seconds – 2 minutes

Features & Benefits

CDC, USA recommended formula – Alcohol + Chlorhexidine
Strongly active despite bioburden – superior to povidone – iodine
Powerful synergistic action
Activity remains for longer period of time as indicated by skin marker green colour
Unlike povidone iodine, can be used in neonates & thyroid patients

Applications

MAJOR SURGICAL PROCEDURES

Prepping, marking of skin, post-operative dressings, removal of sutures

MINOR SURGICAL PROCEDURES

Incisions, blood collections, scopy, minor injuries

DERMATOLOGICAL APPLICATIONS

Eczematous infections, prophylaxis against mycotic infections

Usage Directions

PREPPING PRIOR TO INCISION – Use antiseptics. SURGIPREP-CHX™ for pre-operative marking in various incisional procedures like central venous catheterisation, scopys, etc. Paint the operative area with a sprayer or a sterile swab dipped in undiluted SURGIPREP-CHX™. Allow to dry, paint again & keep in contact for 2 minutes.

POST CLOSURE – Gently apply SURGIPREP-CHX™ on and around operation site, over sutures.

DRESSING OF WOUND – Apply a swab moistened with SURGIPREP-CHX™ on the wound, for complete antiseptic effect.

MINOR PROCEDURE – Apply SURGIPREP-CHX™ prior to minor procedure (i.e: punctures, scopys etc.) & allow contact time 30 seconds

ZYTALL®

Personal care antiseptic solution

ZYTALL® is a clear, mildly perfumed green coloured liquid. **ZYTALL®** is a safe and powerful personal care antiseptic solution for general purpose antiseptics, disinfection and first aid. It is also an ideal prescription antiseptic for patient home care.



Cat. No.	Pack Size
ZAL1000	1000 ml
ZAL5000	5000 ml



Composition

4% w/v Benzalkonium chloride IP
Perfume
Alizarine cyanine green F as colour

Biocidal Activity

Broad spectrum:
Bactericidal, Fungicidal & Virucidal

Contact Time

1 minute

Features & Benefits

Ideal prescription and general antiseptic
Non-stinging
Effective yet gentle

Applications

MEDICAL
Aseptic catheterisation
Body/ Hand – wash lotion
Dressing minor wounds
Personal hygiene

INDUSTRIAL

In pharmaceutical, food & dairy industry for surface and general purpose disinfection

GENERAL

General hygiene, First aid, Household

Usage Directions

GENERAL

BATHING – Add 2-4 capfuls of ZYTALL® to baths for hygienic reassurance and a refreshing feeling.

SHAVING – Add 25 ml of ZYTALL® to 1 Ltr of shaving water for hygienic shave. Do not use undiluted.

DANDRUFF – Add 25 ml of ZYTALL® to 1 Ltr of water and pour over scalp. Leave for 10 minutes before shampooing. Do not use undiluted.

MEDICAL

For aseptic catheterisation- Disinfect perineal area before catheter insertion. Apply undiluted.

For body wash – Soak a sterile cloth in undiluted ZYTALL® and apply thoroughly on the patient's body.

Cuts, Bites, Abrasions, First Aid- Add 50 ml ZYTALL® in 1 Ltr water and wash the affected area. Cover with a clean dry dressing.

Personal Hygiene, Midwifery, Nursery & Sickroom- Add 25 ml Zytall® in 1 Ltr water. Do not use undiluted.

INDUSTRIAL

Add 25 ml ZYTALL® in 1 Ltr water for surface disinfection

NOTE: Not recommended for infants under 9 months except on medical advice.

POVIDOR™

**Antiseptic solution
(10% w/v Povidone- Iodine Solution IP)**

POVIDOR™ is a dark brown yellow coloured antiseptic solution suited for pre and post surgical antiseptics.



Composition

Povidone Iodine IP 10% w/v
(Available Iodine 1% w/v)

Biocidal Activity

Broad spectrum:
Bactericidal, Fungicidal, Virucidal, Sporocidal, Antiseptic Solution

Contact Time

30 seconds to 2 minutes

Application:

Pre and post-surgical skin antiseptics, prophylactic casualty procedure, against infections of burns, lacerations and abrasion. Treatment of bacterial and mycotic skin infections. Protective antiseptic film under dressings, bandages and plaster casts.

Usage Directions:

Use undiluted. Apply directly to skin. Allow to dry prior to application of dressing, drape or cast. Contraindicated in case of known iodine sensitivity.

Cat. No.	Pack Size
PAS0100	100 ml
PAS0500	500 ml





ENVIRONMENT & SURFACE DISINFECTANTS

AEROSEPT™ Air and surface sprayable disinfectant	27
MICROLYSE® Disinfectant cleaner for floor and hard surfaces	28
SILVICIDE® Aerial fumigant and surface and water disinfectant solution	29
SURFAX™ Disinfectant cleaner for floor and hard surfaces	30
TOTASEP™ Disinfectant for hospitals, hotels and food industry	31

AEROSEPT™

Air and surface sprayable disinfectant

AEROSEPT™ is a clear, light green perfumed liquid spray. Its unique formulation effectively breaks down organic matter providing a rapid microbicidal action for aerial and all kinds of surface disinfection.



Cat. No.	Pack Size
AST0250	250 ml
AST0500	500 ml
AST5000	5000 ml



Composition

0.5% w/v Benzalkonium chloride solution IP
70% v/v Isopropyl alcohol (2-Propanol) IP
Perfume
Pea green FCF as colour

Biocidal Activity

Broad spectrum:
Bactericidal, Fungicidal

Contact Time

1 minute

Features & Benefits

Eco-friendly
Potent, synergistic formulation
Rapid & synergistic action
Easy to use
Save time & efforts
Rapid action
Good residual effect
Non-corrosive, compatible with all kind of metallic & non metallic surfaces

Applications

MEDICAL
For disinfecting-
NICU pumps
OT equipments
ECG monitors
Ventilators
Respiration and AVD units
Fibrillators
Clinical thermometers
Stethoscopes
Pulse oxymeters
Incubators
Hand pieces
Dental chairs, Hospital beds
Table tops
Consulting rooms
Air space between patients

INDUSTRIAL

In pharmaceutical, food and dairy industry for disinfecting Laminar hoods, Table tops, Work stations, Air and surface disinfection in critical areas

Usage Directions

Spray undiluted AEROSEPT™ on objects and surfaces that require disinfection until they are fully wet. Exposure time 1 minute for invisibly soiled areas and 15 minutes for visibly soiled areas.

Spray undiluted AEROSEPT™ aerially to contaminated rooms, clinicians chamber, pathology laboratories, research & development laboratories etc. until saturation.

MICROLYSE®

**Disinfectant cleaner for
floor and hard surfaces**

MICROLYSE® is a clear, emerald green pleasantly perfumed aldehyde-free solution.

MICROLYSE® is an effective floor disinfectant that is non-staining. Its enhanced surfactant based cleaning formula is ideal for germ free sparkling floors and surfaces.



Cat. No.	Pack Size
MLE0500	500 ml
MLE5000	5000 ml



Composition

4% w/v Benzalkonium chloride solution IP

Perfume

Tartrazine and Alizarine cyanine green F as colours

Biocidal Activity

Broad spectrum:

Bactericidal, Fungicidal, Germicidal

Contact Time

5 minute (undiluted),

10 minutes (1.5% v/v solution)

15 minutes (1% v/v solution)

30 minutes (0.5% v/v solution)

Features & Benefits

Aldehyde-free effective disinfection –safe to human & environment

Instant + residual action

Enhanced cleaning power

Excellent surface compatibility even in critical areas

High use dilutions-cost effective

Non-corrosive –all surface compatible

Applications

MEDICAL

Hospitals & Laboratories- For daily disinfection, maintenance of patient related areas dental clinics, maintenance and cleaning of work related areas, corridors and toilets

INDUSTRY

In pharmaceutical, food and dairy industry as daily disinfectant and maintenance of dressing rooms, laundry rooms, laboratories, kitchens and food processing areas

GENERAL

Kitchen, floor and toilet disinfection and cleaning

Usage Directions

HOSPITALS / LABORATORIES – Use undiluted MICROLYSE® on hospital/laboratory platforms, tiles and sink. Pour liberally down the drains.

FLOOR & BATHROOM SURFACES – USE 20 ml of MICROLYSE® in half a bucket of water (4L). Gently mop the surface. No need to rinse.

TOILET AND BATHROOMS – Use undiluted MICROLYSE®

KITCHEN SURFACES – Use MICROLYSE® undiluted. Apply onto the dirty area, leave for 10 minutes and rinse.

INDUSTRIAL – Dilute 15 ml of MICROLYSE® in 1 Ltr of water for surface disinfection.

SILVICIDE®

Aerial fumigant, surface and water disinfectant solution

SILVICIDE® is a clear solution with a characteristic peroxide odour. It is a universal disinfectant based on a complex of silver ions and hydrogen peroxide as an oxidizing agent that can be used for aerial fumigation and for surface and water disinfection. It does not alter the taste, colour or smell of food/water and leaves no residue.



Cat. No.	Pack Size
SCE0500	500 ml
SCE1000	1000 ml
SCE2500	2500 ml
SCE5000	5000 ml
SCE025L	25 L



Composition

0.01% w/v Silver nitrate IP

10% w/v Hydrogen peroxide IP

Biocidal Activity

Broad spectrum:

Bactericidal, Fungicidal, Virucidal, Sporicidal & Tuberculocidal

Contact Time

15 minutes (Undiluted)

30 minutes (20% v/v Solution)

60 minutes (5% v/v Solution)

S.aureus, B.subtilis & A.niger – 150 minutes (5% v/v Solution)

Features & Benefits

Eco-friendly & safe – safe to human & environment

Residue – free

Broad-spectrum – kills all pathogens including spores & resistant strains like MRSA & VRE

Just takes 1 hour to sterilize OT

Can be used to mop OT surfaces as well

Excellent surface & material compatibility

Applications

MEDICAL

In hospitals and laboratories for aerial fumigation in critical areas such as OT, maternity units and other clean areas

Water and Surface disinfection

Regular disinfection in sensitive research and quality control areas

INDUSTRY

In pharmaceutical, food and dairy industry as a surface disinfectant

For aerial fumigation in manufacturing, R & D and QA/QC areas

Usage Directions

AERIAL FUMIGATION

Use 20% v/v SILVICIDE® i.e., 200 ml SILVICIDE® + 800 ml DM water

SURFACE DISINFECTION

Use 5% v/v SILVICIDE® i.e., 50 ml SILVICIDE® + 950 ml DM water

WATER DISINFECTION

Use 100 ppm i.e., 100 ml of SILVICIDE® in 1000 Ltr of water with contact time of 8 hours

Use 500 ppm i.e., 500 ml of SILVICIDE® in 1000 Ltr of water with contact time of 6 hours

Use 1000 ppm i.e., 1 Ltr of SILVICIDE® in 1000Ltr of water with contact time of 2 hours

SURFAX™

Disinfectant cleaner for floor and hard surfaces

SURFAX™ is a colourless to pale yellow liquid with a characteristic mildly perfumed odour. It is an effective disinfectant cleaner based on a chlorine releasing action.



Cat. No.	Pack Size
SFX0500	500 ml
SFX5000	5000 ml



Composition

Minimum 0.6% w/v
Sodium hypochlorite BP
Stabilizers
Perfume

Biocidal Activity

Broad spectrum:
Germicidal

Contact Time

10 minutes

Features & Benefits

Rapid biocidal effect
Bioburden tolerant
Remove stains of blood and other body fluids
Stabilized chlorine release formula
Enhanced residual effect
Non-corrosive –all surface compatible

Applications

MEDICAL

Disinfection of walls and floor of OT, maternity units, critical care areas, clinics, corridors, disposal areas, dressing rooms, toilets etc.

INDUSTRY

Floor mopping & surface disinfection in pharmaceutical, food and dairy industry
Dressing and laundry rooms, kitchen and laboratories
Food processing areas

GENERAL

General sanitation
Floor & Toilets

Usage Directions

MEDICAL

HOSPITAL/LABORATORIES/TOILET/BATHROOMS/KITCHEN SURFACES

-Apply undiluted SURFAX™ onto the dirty area, leave for 10 minutes and wash.

FLOORS -Mop the floor with 20 ml of SURFAX™ in half a bucket of water (4 Ltrs of water).

INDUSTRY

Dilute 15 ml of SURFAX™ in 1 Ltr of water for floor mopping & surface disinfection.

TOTASEP™

**Disinfectant for hospitals, hotels,
food and pharmaceutical industry**

TOTASEP™ is a colourless, non-perfumed liquid with a potent broad spectrum antimicrobial action combined with excellent cleaning power. Its non-toxic and environment friendly properties make it ideal for food industry and food contact areas and equipments.



Cat. No.	Pack Size
TSP1000	1000 ml
TSP5000	5000 ml



Composition

3% w/v [poly(hexamethylenebiguanide) hydrochloride] (PHMB)
10% w/v Didecyl dimethyl ammonium chloride

Biocidal Activity

Broad spectrum:
Bactericidal, Fungicidal & Virucidal

Contact Time

Surface: 10 - 30 minutes

Features & Benefits

Aldehyde-free – Safe to human & environment
Bioburden tolerant – Effective in presence of blood, saliva, serum fluid etc.
Resistance-free
Uses 2 novel molecules:
PHMB + DDAC Powerful synergistic action
Tough against biofilms
Excellent material compatibility
No known resistance

Applications

MEDICAL

Disinfection of NICU, ICU, OT, paediatric wards, sterile areas, hospital surfaces

INDUSTRY

In hotel, food, dairy and pharmaceutical industry for disinfection of processing areas, work stations, storage objects and processing equipments

Usage Directions

KITCHEN & FOOD PROCESSING AREAS

Prepare a dilution of 5 to 10 ml TOTASEP™ with 1 Ltr water.
Mop/spray liberally allowing contact time of 30 minutes for disinfection.

MEDICAL SPHERES AND HIGH STERILE AREAS

Prepare a dilution of 10 to 15 ml TOTASEP™ with 1 Ltr water.
Mop or spray liberally allowing contact time of 30 min for disinfection.



INSTRUMENT DISINFECTANTS

CLEANING AGENTS

CLENZYME™ 33
Multi-enzyme cleaner for surgical and dental instruments

ZAPRUST™ 34
High efficiency rust remover

DISINFECTANTS

ACITAR™ 35
High level surgical instrument sterilizing and disinfectant solution

ENDOMAX™ 36
2.4% Glutaraldehyde solution for high level disinfection

NOVACIDE™ 37
New generation aldehyde free cold sterilant for medical devices

OPAHYDE™ 38
0.55% Ortho-phthalaldehyde solution for high level disinfection

CLENZYME™

Multi enzyme cleaner for surgical, medical & dental instruments

CLENZYME™ is a Multi-Enzyme Cleaner for Surgical, Medical and Dental Instruments, including Flexible and Rigid Endoscopes specially formulated to digest organic biological residue which can be found on reusable Endoscopes and Medical & Dental Instruments. It is a multi-enzyme cleaning solution designed to be effective against all human secretions including proteins, lipids, mucous and carbohydrates.



Cat. No.	Pack Size
CZE0500	500 ml
CZE1000	1000 ml
CZE2500	2500 ml
CZE5000	5000 ml



Composition

12% Enzymes (Combination of Proteases, Lipases and Amylases), Non ionic surfactants, Preservatives

Biocidal Activity

Precleaner

Contact Time

15 minutes

Features & Benefits

Rapid lyses; proteins, lipids, carbohydrates and other body fluids sticking to instruments.

Contains 12% v/v optimized blend of proteases, lipases and amylases.

Contains corrosion inhibitors – compatible with all materials.

Special buffers added to maintain neutral pH.

Enhanced cleaning action due to addition of non-ionic surfactant.

Designed for use during manual or ultrasonic cleaning, automatic endoscope washer.

Biodegradable eco-friendly.

Applications

MEDICAL

To rapidly clean surgical instruments like endoscopes etc before sterilization.

To rapidly remove body fluids sticking to instruments surfaces.

Can be used in automatic endoscope reprocessor.

Degree of biological contamination on instruments	Dilutions of CLENZYME™ in DM water* (preferably warm) **	Recommended soak times *** (in minutes)	
		Manual	Ultrasonic
High & dried up	3% v/v	20-30	10-20
High	2% v/v	10-15	8-12
Moderate	1.5% v/v	8-15	5-8
Light	1% v/v	5-15	2-3

INDUSTRY

In pharmaceutical, hotel, food & dairy industry for surface cleaning to remove organic debris, particularly as a pre-soak to remove biofilms

Usage Directions

MEDICAL – CLENZYME™ can be used at various dilutions depending upon the degree of biological contamination on the Surgical, Medical and Dental Instruments, including Flexible and Rigid Endoscopes. The following dilutions and soak times are to be used depending upon the degree of biological contamination.

INDUSTRY – Dilute 3% CLENZYME™ in DM water and wash / soak for 30 minutes and rinse

NOTE: Do not allow biological contamination to dry on to the Surgical, Medical & Dental instruments, including flexible and Rigid Endoscopes. Rinse with water prior to disinfection/sterilization. Discard solution after use.

*DM water : Demineralized water.

**Preferably warm : Water of 35-45°C

***Recommended soak times: It is the range of recommended soak time which may vary depending upon types of instrument, individual hospital's instruments disinfection practices etc.

ZAPRUST™

High efficiency rust remover

ZAPRUST™ is a ready to use high efficiency rust remover with a fast action formula. It helps in removing and converting rust into iron and further protecting it from oxidation. The quick action of **ZAPRUST™** leaves the treated surface in a relatively passivated condition. **ZAPRUST™** restores original finish and increases use-life of instruments.

Composition

Inorganic acid (>30% phosphoric acid), Non Ionic surfactants (>5%)

Contact Time

Undiluted : 5 to 10 minutes

Diluted : 10 to 30 minutes

Features & Benefits

ZAPRUST™ has rapid action with minimal contact time

ZAPRUST™ is a non – flammable –safe

ZAPRUST™ doesn't contain harmful VOCs- safe to human & environment

ZAPRUST™ is indigenously manufactured under GMP gives regular availability

ZAPRUST™ is cost effective

Applications

Removal of Rust from

Surgical / Medical Instruments

Dental Instruments

Industrial Equipments and Surfaces

Usage Directions

DILUTED

Dilute 10% ZAPRUST™ with potable water.

Pour ZAPRUST™ solution in any non-metallic container.

Soak rusted part/s in ZAPRUST™ for 5-10 minutes depending on surface area.

Brush to remove debris.

Thoroughly rinse with water and wipe with dry cloth or air dry.

UNDILUTED

Pour undiluted ZAPRUST™ solution in any non – metallic container.

Soak rusted part/s in ZAPRUST™ for 5-10 minutes depending on surface area.

Brush to remove debris.

Thoroughly rinse with water and wipe with dry cloth or air dry.

Note: Do not soak beyond maximum recommended time.

Better results when lukewarm water used for dilution.



Cat. No.	Pack Size
ZAP1000	1000 ml
ZAP5000	5000 ml



ACITAR™

High level surgical instrument sterilizing and disinfectant solution

ACITAR™ is a colourless/ pale yellow coloured liquid with a characteristic odour. It is an acidic glutaraldehyde solution that does not require activation. Fortified with benzalkonium chloride, **ACITAR™** provides high level disinfection and sterilization in medical settings. High use dilution and low contact time makes it an economical alternative to alkaline glutaraldehyde solutions.



Cat. No.	Pack Size
ATR0500	500 ml
ATR5000	5000 ml



Composition

2% w/v Glutaraldehyde
5% w/v Benzalkonium chloride solution IP
Corrosion inhibitors

Biocidal Activity

Broad spectrum:
Bactericidal, Fungicidal, Virucidal & Sporicidal

Contact Time

HLD in 15 minutes
Sporicidal in 5 hours

Features & Benefits

3 in 1 sterilizing solution – medical instruments, surface disinfection and aerial fumigation
Excellent synergistic action
30 days post dilution use life – hassle free use
Effective against biofilms – prevents nosocomial infections & damage of surface due to biofilms
Organic load tolerant
Ready to use, non – corrosive

Applications

MEDICAL

High level disinfectant/sterilant for GI endoscopes, dental burrs, anesthesia equipment for the airway, headpieces, diaphragm fitting rings, etc.
Environment disinfection (fogging) for OT, ICU, NICU, laboratories etc.

INDUSTRIAL

Environment disinfection (fogging) for clean / sterile areas, R & D labs etc
Surface disinfection

Usage Directions

HIGH LEVEL DISINFECTION – Immerse the cleaned surgical instruments & endoscopes (wearing gloves) in 20% v/v solution of ACITAR™ for 15 minutes & rinse with water.

TOTAL STERILIZATION – Clean the surgical instruments & endoscopes with multi enzyme cleaner & rinse with water. Immerse the cleaned surgical instruments & endoscopes (wearing gloves) in a undiluted solution of ACITAR™ for 5 hours & rinse with water.

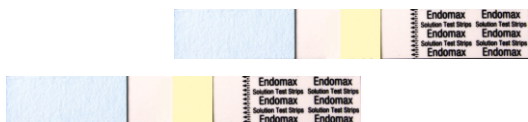
FUMIGATION/FOGGING – Use 10-50 ml ACITAR™ with 1 Ltr DM water for aerial fumigation/fogging of critical areas such as OT's, QA/QC laboratories, R & D laboratories, production areas & clean rooms / sterile areas in industrial settings. Allow 60 minutes of contact time after fumigation / fogging.

SURFACE DISINFECTION – Use 50 ml ACITAR™ with 1Ltr DM water for daily mopping & surface disinfection of OT's, QA/QC laboratories, R & D laboratories, production areas & clean rooms/sterile areas in industrial settings

ENDOMAX™

2.4% Glutaraldehyde solution for high level disinfection

ENDOMAX™ is a 14 day stable, colourless, fluorescent green coloured liquid upon activation with characteristic odour. It is suitable for high level disinfection and cold sterilization of all types of medical instruments especially various endoscopes.



Endomax™ Solution Test Strips

To monitor the Minimum Effective Concentration (MEC) of **ENDOMAX™** Solution during its post activation use life.



Cat. No.	Pack Size
EMX1000	1000 ml
EMX5000	5000 ml



Composition

2.45% w/v Glutaraldehyde
Corrosion inhibitors

Biocidal Activity

Broad spectrum:

Bactericidal, Fungicidal, Virucidal & Sporidical

Contact Time

High Level Disinfection - 20 minutes

Sporidical activity – 10 hours

Features & Benefits

Glutaraldehyde with low Purification Index ensures high purity, efficacy & stability.

In accordance with CDC, USA recommendation – formulation which is recommended for instrument disinfections.

Good material compatibility.

Applications

MEDICAL

High level disinfectant for: GI endoscopes

Anaesthesia equipment for the airway

Diaphragm fitting rings

Dental burrs

Handpieces etc

INDUSTRY

In pharmaceutical, food & dairy industry, for surface disinfection

Usage Directions

MEDICAL

ACTIVATION – Activate the **ENDOMAX™** solution by adding the entire contents of the activator vial supplied along with the **ENDOMAX™** solution container. When activated, solution turns fluorescent green. Record the date of activation in a log book or on label affixed to a secondary container used for the activated solution. Refer Package Insert for additional information on activated solution.

CLEANING – Blood and other body fluids must be thoroughly cleaned from surfaces and lumens of devices before reprocessing. Thoroughly clean, rinse and rough dry devices before immersing in **ENDOMAX™** solution. Clean and rinse the lumens of hollow instruments before filling with **ENDOMAX™** solution. Refer Package Insert for additional information on cleaning / decontamination.

USAGE – Immerse cleaned medical instruments / equipment completely in **ENDOMAX™** solution for the required time at the appropriate temperature.

REUSE PERIOD – **ENDOMAX™** solution can be reused for maximum of 14 days provided the required conditions of glutaraldehyde concentration, pH and temperature exist based upon monitoring described in the Package Insert. Do not rely solely on days in use. Test the activated solution prior to each use with **ENDOMAX™** solution Test Strips.

INDUSTRIAL

Use the activated **ENDOMAX™** solution undiluted to mop surface (with extra wetness) with a contact time of 20 mins and rinse.

NOVACIDE®

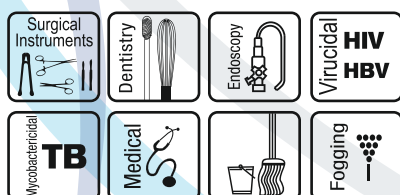
New generation aldehyde free cold sterilant for medical devices

NOVACIDE® is a 40x concentrated, highly effective aldehyde-free disinfecting and cleaning concentrate.

NOVACIDE® is a safe and highly suited for flexible endoscopes, dental products, surgical equipments, surface disinfection and fumigation. **NOVACIDE®** is highly effective and suitable for use in AUTOMATIC ENDOSCOPE REPROCESSORS and in automated medical and dental machines. **NOVACIDE®** once diluted to the working strength of 2.5% v/v solution, will remain active for up to 14 days. The concentrated solution is stable till the expiry date mentioned on the container label.



Cat. No.	Pack Size
NVC1000	1000 ml
NVC5000	5000 ml



Composition

3% w/v [Poly(hexamethylene biguanide) hydrochloride] (PHMB)
10% w/v Didecyl dimethyl ammonium chloride
Corrosion inhibitors

Biocidal Activity

Broad spectrum:

Bactericidal, Fungicidal, Virucidal, Sporocidal & Mycobactericidal

Contact Time

Bactericidal, Fungicidal, Virucidal action - 10 minutes

Tuberculocidal, Sporocidal action - 30 minutes

For Immunocompromised patient protection - 30 minutes

Features & Benefits

Sporocidal activity in just 30 minutes

Aldehyde-free-no respiratory / skin/ eye irritation – safe to human & environment

Bioburden tolerant

No known Resistance

Uses 2 novel molecules – PHMB + DDAC – gives powerful synergistic action

Tough against biofilms – prevents nosocomial infections & damage of surface due to biofilms

Colourless & odourless – Suitable for paediatric units, food & drug industry

Applications

MEDICAL

Sterilization of endoscopes & surgical instruments

Surface disinfection

Fumigation

INDUSTRY

As a surface disinfectant for general purposes

Usage Directions

COLD STERILIZATION OF MEDICAL DEVICES – Clean the Surgical instruments & Endoscopes with mild detergent solution and rinse with water. For Standard Disinfection, immerse the cleaned Surgical Instruments & Endoscopes (Wearing Gloves) in 2.5% v/v (25 ml in 1 Ltr.) solution for 10 mins. For Total Sterilization, immerse the cleaned Surgical instruments & Endoscopes (Wearing Gloves) in 2.5% v/v (25 ml in 1ltr.) solution for 30 minutes.

COLD STERILIZATION OF DENTAL DRILLS – Dilute 2.5 ml of NOVACIDE® with 100 ml of potable /DM water. Completely immerse the pre-cleaned burrs/drills immediately after use. Leave the burrs / drills for 30 mins in the NOVACIDE® solution. After that, rinse the burrs/drills with sterile water and dry straight away with a disposable / clean sterile towel. Hygienically store the disinfected burrs/drills.

SURFACE DISINFECTION – KITCHENS AND FOODSTUFF AREAS – 0.5% - 1.0% v/v (5 to 10 ml in 1 Ltr.) solution of NOVACIDE® in water.

MEDICAL SPHERES AND HI-STERILE AREAS – 1.0% - 1.5% v/v (10 to 15 ml in 1 Ltr.) solution of NOVACIDE® in water. Mop or liberally spray allowing a contact time of 30 mins.

AERIAL FUMIGATION – Make a 1:40 (25 ml in 975 ml DM water) Solution of NOVACIDE® Using a ULV fogger, the area to be disinfected should be fogged using standard protocol. Allow one hour contact time and then mop dry.

OPAHYDE™

0.55% Ortho-phthalaldehyde solution for high level disinfection

OPAHYDE™ is a clear, light-blue solution with a characteristic odour. It is a powerful novel aldehyde based formulation that requires no activation and has a quick turnaround time. It is suitable for disinfection of medical instruments.



Opahyde™ Solution Test Strips

To monitor the Minimum Effective Concentration (MEC) of Opahyde™ Solution during its post activation use life.



Cat. No.	Pack Size
OHE0500	500 ml
OHE5000	5000 ml



Composition

0.55% w/v Ortho-Phthalaldehyde
Inert ingredients
Alizarine cyanine green F as colour

Biocidal Activity

Broad spectrum:
Bactericidal, Fungicidal & Virucidal

Contact Time

For manual, HLD : 12 minutes (As per CDC guidelines)
For AER, HLD : 5 minutes (As per CDC guidelines)

Features & Benefits

Effective against HIV, HBV, MTB & Spores
No activation required – hassle free use
High stability and shelf-life
Quick turn around time
High use Life

Applications

MEDICAL
High level disinfectant for GI endoscopes, Anaesthesia equipment for the airway Diaphragm fitting rings, Dental burrs, Handpieces, etc.

Usage Directions

ACTIVATION

OPAHYDE™ Solution is ready to use and does not require activation.

Cleaning – Blood and other body fluids must be thoroughly cleaned from surfaces and lumens of devices before reprocessing. Thoroughly clean, rinse and rough dry devices before immersion in OPAHYDE™ solution. Clean and rinse the lumens of hollow instruments before filling with Solution. Refer Pack Insert for additional information on cleaning / decontamination.

USAGE

High Level Disinfection

1. Manual Processing : Immerse device completely, filling all lumens and eliminating air pockets, in Opahyde™ Solution for a minimum of 12 minutes at 20°C (68°F) or higher to destroy all pathogenic microorganisms. Remove device from the solution and rinse thoroughly.

2. Automatic Endoscope Reprocessor that can be set to a minimum of 25°C : High Level Disinfectant at a minimum of 25°C (77°F). For use in a legally marketed AER (that can be set to a minimum of 25°C) with a minimum immersion time of 5 minutes. As with all high level disinfectants, it is critical that temperature is monitored when using Opahyde™ Solution in an AER at 25°C. (As per CDC guidelines)

REUSE PERIOD

OPAHYDE™ Solution can be reused for maximum of 14 days provided the required conditions of ortho-phthalaldehyde concentration, pH, and temperature exist based upon monitoring described in the Package Insert. Do not rely solely on days in use. Test the OPAHYDE™ solution prior to each use with Solution Test Strips.

STORAGE

15° C - 30° C. Once opened, the unused portion of the solution may be stored in the original container for upto 75 days until used.

DISPOSAL

Discard residual OPAHYDE™ solution in drain or as per hospital policy.

Container Disposal – Do not reuse empty container, rinse with water and dispose as per hospital policy.



EQUIPMENTS & ACCESSORIES

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Touch-free liquid/gel dispenser	
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BIOSTAR™

ULV Fogger

BIOSTAR™ is a ultra low volume fogging machine meant for delivering disinfectant solutions as a fine atomized spray mist for environment & surface disinfection.



Cat. No.
BS1001

Features & Benefits

Particle size generation : 5-15 MICRONS
Liquid discharge rate : 0-200 ml/min
Reach : 20-30 ft distance & 18-20 ft height
Space treatment : Up to 7000 cubic ft or larger
Input power: 220 V AC, 3.5 AMP, 50 Hz
Nozzle assembly : Non Rotating, Vortex Design, Non Clogging, Engg. plastic
Power head housing : High Grade Engg. Plastics, Tough & Corrosion resistant
Chemical solution tank capacity : 5 Litres, HDPE plastic / SS-304
Dead volume : 100 – 150 ml
Strainer / washer : SS 304 Wiremesh
Intake air filter : Primary / Secondary Filtration
Empty weight : 4.6 KG

Applications

MEDICAL

Hospital, Nursing Homes & Clinics – Fumigation / Air environment sterility in Operation Theatres, Intensive Care Units, ICCUs Neonatal ICUs, AKD Units, Patients Rooms & General Wards, Post Operative Wards, air sterility in Microbiology Lab, Pathology Labs, Blood Banks etc.

INDUSTRIES

Aerial fumigation /air environment sterility in sterile areas of injectables, Vaccines, Tablets, Parentrals, IV Fluids, Medical Devices, Bulk Drug manufacturing areas, QC & QA areas, Microbiology Lab, R&D center, Clinical Drug Trial Centre.

Technical Benefits

Biostar™ ULV produces greater aerosol volume & fine diffusion of chemical being fogged into space, areas, obstructed surfaces ensuring uniform treatment of entire space. Least possible residues on floor & surfaces. Fine droplet size of the fog greatly enhances the action of the chemical being dispensed using lesser chemical & water (diluent).

Easy to clean, detachable & non corrosive chemical solution tank.

Rugged design & corrosion resistant material of construction
Specially designed intake air filter prevents entry of dust, dirt & chemical and helps to extend life of motor parts.

Application Benefits

Fast, highly effective, safe, non-toxic fumigation / disinfection when used with disinfectants.

Very convenient tool for air / environment sterility & infection control tasks

Sterile areas ready for use within 1hr maximum.

Speed of the application gives great savings in time and permits the treatment to be made when convenient.

No flooding of disinfectant on the floor / surfaces.

Compatible with wide range of disinfectants.

Note : Available in Plastic & Stainless Steel Tank

BIOFLOW™

Touch-free liquid/ gel dispenser

BIOFLOW™ is a state of art, touch-free and wall mounted dispenser to dispense handrub / handwash in medical and industrial settings. **BIOFLOW™** automatically dispenses both liquids and gels at a prefixed dose. This ensures adequate disinfection of hands without contaminating the environment.



BIOFLOW™ product description

Features	Benefits
Touch-free	Prevents cross contamination
After sales service	Peace of mind
Stainless Steel	Corrosion resistance, good strength, long term value, fire & heat resistance
Fixed dose dispensing	Adequate disinfection Reduced wastage of handrub/ handwash
AC adapter provided*	No need of battery
Compatible with liquids and gels	Versatile

Specifications

Product Name : **BIOFLOW™**
Unit size : 27.5 L * 15 B * 10.5 D cm
Weight : 2.0 kg (excluding chemicals, accessories etc.)
Material : SS 304 (front cover and body)
Bottle Volume : 500 ml
Installation : Counter Top or Wall Mount
AC transformer : 6 VDC 1 A. Power Adapter / 6VDC
(A size * 4 nos.)

*Battery option is also available.

BIOFLOW™ is compatible with

ALCONOX®

Colourless & odourless alcoholic handrub with moisturiser

ECOMAX™

Alcoholic handrub with moisturiser

PURELLIUM™ GEL

Alcoholic handrub gel with moisturiser

STERIMAX®

Liquid handrub antiseptic with triple action

TRIOSEPT™

Colourless & odourless liquid handrub antiseptic with triple action

BIOSCRUB™

Antiseptic surgical scrub

HITMAX®

Liquid microbicidal handwash soap

Cat. No.
844BF00000



ACCESSORIES

DISPENSER PUMPS

Disposable pumps for obtaining products from **BIOSHIELDS®** 250 ml, 500 ml & 100 ml bottles.
Delivers 1.5 – 2 ml / stroke.

Cat No. : DP1001



DISPENSER STAND

Dispenser stand compatible with STERIMAX®, ECOMAX™, PURELLIUM™ GEL, TRIOSEPT™, ALCONOX®, HITMAX® and BIOSCRUB™ 500 ml bottles made out of HDPE plastic. Light, Robust and High Impact Resistant.

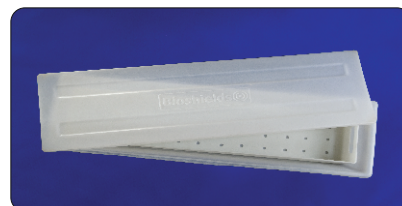
Cat No. : DS1001

IMMERSION TRAY

Immersion Tray made up of non-reactive high impact plastic. Suitable for immersion of all kinds of instruments in Hospitals, Clinics & Labs. Recommended for ENDOMAX™, OPAHYDE™, ACITAR™ and NOVACIDE®

Dimensions : 72.5cms × 23.5cms × 10.5cms.

Cat No. : IT1001



TRANSFER SIPHON

Reusable siphon for transferring **BIOSHIELDS®** products from refill packs to dispenser bottle packs.

Cat no. : TS1001



HOUSEKEEPING SEGMENT

PURESAFE™ Multipurpose, broad spectrum formulation	45
PURESAFE KIT™ The pH indicator test The free chlorine test	46
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PURESAFE™

Multipurpose, broadspectrum formulation

PURESAFE™ is an effective effervescent formulation in powder form, containing Sodium Dichloroisocyanurate (NaDCC) – an organic chlorine donor with an excellent purifying capacity. **PURESAFE™** in water releases hypochlorous acid, an active ingredient having biocidal activity against Gram -positive and Gram-negative bacteria, bacterial spores, cyst, algae, fungi, protozoa and virus.

Composition:

Sodium Dichloroisocyanurate (NaDCC),
Excipients q.s.

1.67 gms NaDCC releases 1 gm of available chlorine when it is dissolved in water.

1 gm available chlorine per Litre = 1g/Litre or 0.1 % or 1000 ppm available chlorine.

Biocidal Activity:

Broad Spectrum :

Bactericidal, Fungicidal, Virucidal,
Sporicidal, Algaecidal, against Protozoa,
Cyst

Contact Time :

30 minutes

Features & Benefits:

Sustain release formula - Ensures availability of free chlorine for better biocidal activity. It is stable and non-corrosive compared to liquid chlorine formulations.

Rapid release formula - Ensures faster purification process hence saves time and improves your productivity.

Broad spectrum - Effective against wide range of microbes i.e. Gram-positive and Gram-negative bacteria, cyst, algae, fungi, protozoa and virus.

Convenient and easy to use - No extra operations & hassle free use, improves your productivity.

Manufactured & Marketed by a scientifically driven disinfectant company - Ensures supply of microbiologically proven products every time.

Applications

Puresafe™, a broad spectrum purification powder is used in the following applications;

Water Purification: Treatment of potable water, waste water, cooling towers and industrial waters.

Dairy / Vegetables / Fruit Washing / Food Processing: Sanitation of vegetables, food preparation surfaces and equipments.

For Hospital Bio Waste: Blood spills, infected/soiled linen, work surfaces and floors, glassware, rubber and plastic tubing, general clinical use, mops etc.

Swimming Pool usage: Sanitation of swimming pools.

Poultry Farm usage: Sanitation of livestock and poultry



Cat. No.	Pack Size
PSF6002	2 gm packets
PSF6020	20 gm packets



Usage Directions:

Type	Concentration	Contact Time
Drinking Water	2g of PURESAFE™ in 500 litres of water releasing 1ppm of chlorine	30 minutes before drinking
Disinfection of water Tanks	200 litre Tank	4g of PURESAFE™ in 200 litres of water releasing 5ppm of chlorine
	400 litre Tank	8g of PURESAFE™ in 400 litres of water releasing 5ppm of chlorine
	500 litre Tank	10g of PURESAFE™ in 500 litres of water releasing 5ppm of chlorine
	1000 litre Tank	20g of PURESAFE™ in 1000 litres of water releasing 5ppm of chlorine
	5000 litre Tank	100g of PURESAFE™ in 5000 litres of water releasing 5ppm of chlorine
	10000 litre Tank	200g of PURESAFE™ in 10000 litres of water releasing 5ppm of chlorine
Blood Spills	40g of PURESAFE™ in 1 litre of water releasing 10000ppm of chlorine	30 minutes
Infected/ Soiled Linen, Work Surfaces & Floors, Glassware, Rubber etc	10g of PURESAFE™ in 15 litres of water releasing 160 ppm of chlorine	30 minutes
General Clinical Use	10 g of PURESAFE™ in 2.5 litres of water releasing 1000 ppm of chlorine	30 minutes
Dish Cloth, Mops in Hospitals	10g of PURESAFE™ in 35 litres of water releasing 70 ppm of chlorine	30 minutes
Walls, Tiles Surface, Floors, Crockery, Cutlery etc	10g of PURESAFE™ in 15 litres of water releasing 160 ppm of chlorine	30 minutes
Dairy/ Vegetables/ Fruit Washing/Food Processing	2g of PURESAFE™ in 10 litres of water releasing 50ppm of chlorine	30 minutes
Disinfection of Swimming Pools	600g of PURESAFE™ in 50 KL(approx.) of water releasing 3ppm of chlorine	30 minutes
Poultry Farm	10gm of PURESAFE™ in 500 litres of water releasing 5ppm of chlorine	30 minutes

PURESAFE KIT™

The pH Indicator Test

The pH Indicator Test is a semi-quantitative test used for determining the pH of water.

The pH Indicator Test is developed exclusively for determining the pH of water. The test can be used to determine the pH within the range of 6.8 to 8.2.

Composition

The Test Solution consists of Phenol Red (Phenolsulfonphthalein), Sodium Hydroxide and Ethanol.

The Free Chlorine Test

The Free Chlorine Test is a semi-quantitative test used for determining the Available Residual Chlorine Concentration in water.

Composition

The Test Solution consists of o-Tolidine (Diaminoditoly) and Hydrochloric Acid.

Use Puresafe KIT™ to determine free available chlorine concentration and pH of water. Kindly ask our sales representative for more information about Puresafe KIT™.



ALCOMOP™

A perfumed disinfectant for
floor and hard surfaces

ALCOMOP™ is a perfumed disinfectant cleaner for floor and hard surfaces. Smart action formula with two active ingredients viz. Benzalkonium Chloride, kills the bacteria and other microbes leaving the surface squeaky clean and Ethanol, a good cleanser for hard tiles leaves no residue making the surface look glossy. **ALCOMOP™** spreads a distinctive aroma throughout the room adding it to its fresh appeal.



Cat. No.	Pack Size
ACM5000	5000 ml



Composition:

74 % v/v Ethyl Alcohol IP,
4 % w/v Benzalkonium Chloride IP,
Perfume.

Biocidal Activity

Broad spectrum :
Microbicidal

Features Benefits

Perfumed disinfectant - Kills bacteria and other microbes, leaving a long lasting freshness.

BKC + Alcohol - Quickly cleans hard floor and surfaces with a lasting shine.

Quick drying action - Allows you to mop floor and surfaces in short period of time.

Good material compatibility- Allows you to mop almost all kind of floor and surfaces.

Application Areas:

Hospital: Corridor, Waiting room, General ward, Doctors chamber, etc.

Hospitality: Office cabin, Guest room, Theaters/Banquet hall, Corridor, Kitchen platform, Table tops, etc.

Directions For Use:

General disinfection of surfaces: Diluted One part of Alcomop™ with 40 parts of cleaned water.

EXIT™

EXIT™, ready-to-use Toilet Bowl Cleaner specially formulated for quick and easy cleaning of toilet bowls.

EXIT™ removes scale and rust build-ups while protecting porcelain, leaving the toilet bowl sparkling bright.



Composition :

10.5 % w/v Hydrochloric Acid

Non Ionic Surfactant (Fatty Amine Ethoxylate Alkyl Phenol Ethoxylate)

Perfume

Acid Blue 80 (CI No. 61585) as colour

Directions For Use:

Unscrew the cap to open.

Pour sufficient liquid around the bowl under the rim.

Leave for 20 minutes, Brush then Flush and see the toilet brighten.

Cat. No.	Pack Size
EXT1000	1000 ml
EXT5000	5000 ml



MAXISHINE™

MAXISHINE™, a disinfectant glass and surface cleaner, with excellent cleaning power that leaves behind a streak free shine. A powerful formula that dissolves dirt, grease, grit and grime from glass and surfaces.



Composition :

0.5% w/v Benzalkonium Chloride IP

Surfactant

Perfume

Brilliant blue FCF as colour

Features & Benefits:

Disinfection & Cleaning effect

Application Areas :

Windows/ Windshields, Glass table Tops & Mirrors

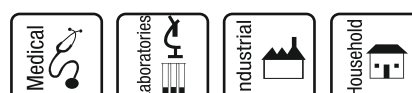
Oven/Microwave Doors

Shower Enclosures, and Stainless Steel Appliances.

Directions For Use :

Spray undiluted Maxishine™ on objects and surfaces that require cleaning and disinfection until they are fully wet. Wipe off with a clean cloth.

Cat. No.	Pack Size
MXS0500	500 ml
MXS5000	5000 ml



LINOSAFE™

Disinfectant cleaner for linen

LINOSAFE™ is a disinfectant cleaner for linen recommended for use in hospitals, hotels and industries with good cleansing power and a rapid bactericidal and fungicidal action. **LINOSAFE™** removes stains and odours, leaving behind a pleasant smell.

Composition:

5% w/v Didecyl dimethyl ammonium chloride

Biocidal Activity

Broad spectrum:

Bactericidal and Fungicidal

Contact Time

30 minutes

Features & Benefits

Broad-spectrum activity

Fourth generation QAC – effective microbicidal

No decolorising effect on fabric-maintain newness of cloth

Bioburden tolerant – effective in presence of blood, serum fluid, saliva etc.

Contains fabric softener & ensures lint-free wash

Applications

MEDICAL

Infected and non-infected hospital linen

INDUSTRY

Hotel and industrial linen

GENERAL

Home linen

Usage Directions

NON-INFECTED HOSPITAL LINEN – Pre-soak the linen in 0.5% v/v solution of LINOSAFE™ in water for 30 minutes (50 ml in 10 Ltr. of water) and then wash off with plain water.

INFECTED HOSPITAL LINEN – Pre-soak the linen in 0.75 % v/v solution of LINOSAFE™ in water for 30 minutes (75 ml in 10 Ltr. of water) and then wash off with plain water.

HIGHLY INFECTED HOSPITAL LINEN – Pre-soak the linen in 1% v/v solution of LINOSAFE™ in water for 30 minutes (100 ml in 10 Ltr. of water) and then wash off with plain water.

HOTEL AND INDUSTRIAL LINEN – Pre-soak the linen in 0.5% v/v solution of LINOSAFE™ in water for 30 minutes (50 ml in 10 Ltr. of water) and then wash off with plain water.



Cat. No.	Pack Size
LNS0500	500 ml
LNS1000	1000 ml
LNS5000	5000 ml



CERTIFICATIONS



ALCOHOLS

Several alcohols possess antimicrobial properties. Alcohols mainly used as biocides are ethanol and isopropanol. The antimicrobial activity of alcohols can be attributed to their ability to denature proteins. Alcohols solutions containing 60% - 95% alcohols are most effective. Concentrations higher than this are less potent as proteins are not denatured easily in the absence of water.

"Combination of alcohols have synergistic effect"

"Combination of alcohols with emollients- minimal risk of skin irritation and skin sensitization"

"Isopropanol is more efficacious than ethanol at 40% to 60% concentrations"

"Ethanol kills organism by denaturing their proteins and dissolving lipids."

"Ethanol is effective against most bacteria, fungi and many viruses."

"Ethanol has greater activity against viruses than isopropanol."

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12. Guidelines for hand hygiene in health care settings. CDC. 2002. 51
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14. Paulson DS, EJ Fendler, MJ Dolan, RA Williams. 1999. A close look at alcohol gel as an antimicrobial sanitising agent. Am J Infect Control. 27:332-8

ALDEHYDES

There are mainly three aldehydes which are used as disinfectants — Formaldehyde, Glutaraldehyde and Ortho- phthalaldehyde. Aldehydes possess broad spectrum antimicrobial activity including spores.

Formaldehyde is the simplest aldehyde. It is used both as liquid or vapour disinfectant. It kills most bacteria and fungi (including their spores). Formaldehyde is known to be toxic, allergenic and carcinogenic to humans.

Glutaraldehyde is a dialdehyde colourless liquid with a pungent odour. It is toxic to humans and causes severe eye, nose, throat and lung infection along with headache, drowsiness and dizziness. It is a main source of occupational asthma among healthcare providers.

"20 minutes exposure to 2% glutaraldehyde can destroy most micro-organisms including M. tuberculosis."

"Lower purification index values of glutaraldehyde represent higher purity, efficacy and stability."

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2. Scott EM, Gorman SP. 1991. Glutaraldehyde. In Disinfection, Sterilization and Preservation. Ed. Block SS. 4th Ed. Philadelphia. PA: Lea & Febiger. PP:596-614

Ortho-phthalaldehyde abbreviated as OPA, is a dialdehyde. Ortho-phthalaldehyde is commonly used as high-level disinfectant for medical instruments.

"OPA (0.5% w/v) readily penetrates the residual cell wall and cytoplasmic membrane, producing significant protein coagulation in M. chelonae"

"OPA has excellent mycobactericidal activity (5-log 10 reduction in 5 minutes)"

"OPA shows good activity against mycobacteria tested, including the glutaraldehyde-resistant strains."

"OPA has good efficacy against HBV and HCV"

"OPA is non mutagenic/non carcinogenic"

"Activation is not required for OPA solutions"

"HLD with OPA is possible in just 12 minutes."

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BIGUANIDES

Various biguanides show antimicrobial activity. Biguanides include both mono and polymeric forms. Chlorhexidine and Polyhexamethylene biguanide (PHMB) are examples of monomeric and polymeric biguanides respectively.

“Chlorhexidine is available as a dihydrochloride, diacetate and gluconate”

“Chlorhexidine is the only preoperative skin prep agent recognized by CDC as having ‘excellent’ activity against Gram +ve bacteria as well as “excellent” residual activity”

“Chlorhexidine has strong affinity for skin, remains chemically active for at least 6 hours”

“Chlorhexidine is active against HSV, HIV, cytomegalovirus, influenza virus and RSV”

“Blood, serum and other protein rich bio-materials can deactivate the microbicidal effect of povidone iodine but not chlorhexidine gluconate”

“Burkholderia cepacia* recovered from povidone iodine antiseptic solution”

“Bacterial contamination of povidone iodine can take place during its manufacturing process itself”

“Chlorhexidine antiseptic should be the first consideration for pre-operative skin preparation”

“Addition of chlorhexidine to alcohol-based preparations results in greater residual activity than alcohol alone”

“The antimicrobial activity of chlorhexidine is only minimally affected by the presence of organic material, including blood”

***Now known as Pseudomonas cepacia.**

1. Mangram AJ, et al., Guideline for prevention of surgical site infection, 1999. Centres for Disease Control and Prevention, Hospital Infection Control Practices. Advisory Committee, Atlanta GA.
2. Larson E. 1988. APIC guidelines for infection control practice: Guideline for use of topical antimicrobial agents. Am J Infect Control. 16(6): 253-65
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Polyhexamethylene biguanide (PHMB) is a disinfectant and a preservative used for disinfection on skin & in cleaning solutions for contact lenses. It has very low toxicity to higher organisms such as human cells, which have more complex and protective membranes. PHMB is not cytotoxic and can be directly applied on the skin or wounds.

“PHMB is a resistance-free (no evidence that use of PHMB leads to the emergence of resistant strains or development of a cross-resistance to antibiotics)”

“A positive development in wound management”

“Successful surgical debridement reported with PHMB irrigation”

“Compared to PVP-I, PHMB is most suitable with a BI greater than 1”

“PHMB is an effective bactericidal, fungicidal, virucidal, and amoebicidal”

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PHENOLS

Phenols also known as phenolics are a class of compounds consisting a hydroxyl group (OH-) bonded to an aromatic hydrocarbon group. Phenol is the simplest of the phenols. It is also known as carboic acid.

“Chloroxylenol has residual antimicrobial activity”

“Chloroxylenol has low sensitization potential”

“The antimicrobial activity of the chloroxylenol is minimally affected by the presence of organic matter”

“Phenols most effective against microorganisms are moderately affected by organic matter”

“Phenol (Phenyl) can affect central nervous system, liver and kidneys”

“Use of m-cresol (phenyl) is banned as biocidal product in Europe & to be phased out by 21st Aug. 2009”

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<http://www.corpchem.com/PDF/Advice/KeyCharactDisinf.pdf>
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Chloroxylenol is another type of phenol which is not significantly toxic to humans and other mammals.

BISPHENOLS have two phenol functional groups. Bisphenols have low water solubility and are inactivated by non-ionic surfactants.

Triclosan is commonly found bisphenol in a wide range of personal care products such as toothpaste, mouthwash, handwash, soaps, shower foams, deodorants, etc. Its activity is not compromised by organic matter.

“Triclosan has residual & anti-inflammatory activity”

“Triclosan is capable of eliminating MRSA”

“Triclosan has persistent activity of the skin”

“Triclosan activity is not substantially affected by the organic matter”

“No evidence of clinical resistance and cross-resistance occurring from the use of Triclosan”

1. Nissen HP and D Ochs. 1998. Triclosan: an antimicrobial active ingredient with anti-inflammatory activity. Cosmetics & Toiletries.
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6. Jones RD, et al., 2000. Triclosan: A review of effectiveness and safety in healthcare settings. Am J Infect Control. 28:184-96
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Hypochlorites have a wide antibacterial spectrum but are less active against spores and mycobacteria.

The hypochlorites are more active at acidic pH than at alkaline pH.

Sodium hypochlorite is commonly used hypochlorite.

“NaOCl is a good sanitizer for food and drug industry”

“Effective against HIV and HBV”

“NaOCl is effective against biofilms”

“NaOCl stored at room temperature quickly loses strength (up to 40%-50%) due to the high rates of free available chlorine level over 1 month”

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4. Piskin & Turkun. 1995. Stability of various sodium hypochlorite solutions. J. Endod. 21(5): 253-5
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6. Johnson BR and NA Remeikis. 1993. Effective shelf life of prepared sodium hypochlorite solution. J Endod. 19(1):40-3

HEAVY METALS

Especially copper, silver and mercury are used as antimicrobial agents. In addition to processing antimicrobial activity, these metal ions also help in the activity of other drugs.

Silver compounds — Silver and its compounds (nitrate and sulphadiazine) are known to have antimicrobial properties for thousands of years when silver containers were used to store water for preservation. Silver compounds are used in medicine, prevention of infection in burns, water disinfection, etc.

PEROXYGENS include hydrogen peroxide, peracetic acid, chlorine dioxide and ozone. This group of biocides are widely used for cleaning, antiseptics, disinfection and sterilization applications.

“H2O2 effective against *Mycobacterium tuberculosis*, VRE, MRSA”

“Eco friendly peroxide -silver complex”

“Silver and hydrogen peroxide have synergistic effect”

“Use of peracetic acid is mutagenic and may cause cancer”

“As per US FDA (effective from March 18, 2009) an aqueous solution of silver nitrate and hydrogen peroxide is safe for use as an antimicrobial agent in bottled water”

1. Kahnert A, et al., 2005. Decontamination with vaporized hydrogen peroxide is effective against *Mycobacterium tuberculosis*. *Lett Appl Microbiol.* 40(6):448-52
2. Pandya MT. 2007. Water treatment using eco-friendly peroxide and silver complex. OEM Ailer.
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Quaternary ammonium compound (QACs) also known as quats. Cetrimide, benzalkonium chloride, dimethyl ammonium chloride are examples of quats.

Cetrimide & benzalkonium chloride are first generation quats.

Dimethyl ammonium chloride (DDAC) is the fourth generation (twin or dual chain) quat. It has stronger/superior antimicrobial activity. DDAC has increased tolerance to hard water and organic matter and is low foaming.

“Cetrimide — antiseptic with detergent properties and minimal toxicity”

“Benzalkonium chloride demonstrates potent in vitro activity against the majority of micro-organisms”

“Benzalkonium chloride is a broad spectrum antiviral, including HIV”

“Benzalkonium chloride is an effective virucidal agent against H1N1”

“Benzalkonium chloride is resistance-free for food associated Gram -ve bacteria and enterococcus spp”

“Benzalkonium chloride: A potential disinfecting irrigation solution”

“DDAC is photolytically and hydrolytically stable and immobile in soil. DDAC is also resistant to microbial degradation”

“QACs are cationic surfactant sanitizers with cleaning activity”

“QACs are effective against molds, yeast, Gram +v and Gram -ve bacteria”

1. Franklin TJ and GA Snow. 2005. Biochemistry and molecular biology of antimicrobial drug action. 6th Ed. Published by Springer Science-Business Media Inc.
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5. Sidhu MS, et al., 2002. Resistance to quaternary ammonium compounds in food related bacteria. *Microbial Drug Resistance.* 8:393-399
6. Gainor BJ, et al., 1997. Benzalkonium chloride: A potential disinfecting irrigation solution. *J Orthop Trauma.* 11(2):121-5
7. Tarbox BB, et al., 1998. Benzalkonium chloride: A potential disinfecting irrigation solution for orthopaedic wounds. *Clin. Orthop Relat Res.* 346:255-61
8. Henderson ND. 1992. A review of environmental impact and toxic effects of DDAC. Prepared for Environmental Protection Division, Ministry of Environment, Lands and Parks, Victoria, British Columbia, V8V 1X4.
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MULTI-ENZYMES

“Multi-enzyme detergents help lengthen the life of an instrument by removing any biofilm than can also cause rust and possibly harm patients”

“Enzymatic detergents are catalysts that enhance and help to loosen dried or hard-to-remove debris that cannot be rinsed or wiped off the instruments”

“Clogging of endoscope channels is virtually eliminated with appropriate enzymatic detergents which reduces the need for costly routine maintenance”

“Proteases are the most important type of enzyme to look for when choosing an enzymatic detergent for medical use”

“Decontamination & cleaning of ophthalmic instruments should follow recommended procedures, in particular use of enzymatic solutions & rinsing with copious amounts of deionized or distilled water”

1. Beaver M. 2008. Instrument Cleaning, Repair and Handling. *Infection Control Today.*
2. Gruendemann BJ and SS Mangum. 2001. Infection prevention in surgical settings. Published by Saunders, Elsevier, Philadelphia, PA 19106.
3. The complete technology book on detergents. 2003. Published by National Institute of Industrial Research

GLOSSARY

Activation of Disinfectant : Process of mixing the contents of a chemical disinfectant that come in two containers (small vial with the activator solution and container of the chemical) Keeping the two chemicals separate until use. Extends the shelf life of the chemicals.

Antimicrobial Agent : Any agent that kills or suppresses the growth of microorganisms.

Antiseptic : Substance that prevents or arrests the growth of action of microorganisms by inhibiting their activity or by destroying them. The term is used especially for preparations applied topically to living tissue.

Bactericide : Agent that kills bacteria.

Bioburden : Number and types of viable microorganisms with which an item is contaminated ; also called bioload or microbial load.

Biofilm : Accumulated mass of bacteria and extracellular material that is tightly adhered to a surface and cannot be easily removed.

Contact Time : Time a disinfectant is in direct contact with the surface or item to be disinfected. For surface disinfection, this period is framed by the application to the surface until complete drying has occurred.

Contaminated: State of having actual or potential contact with microorganisms. As used in health care , the term generally refers to the presence of microorganisms that could produce disease or infection.

Decontamination : According to OSHA, "the use of physical or chemical means to remove, inactivate, or destroy blood borne pathogens on a surface or item to the point where they are no longer capable of transmitting infections particles and the surface or item is rendered safe for handling, use, or disposal " [29 CFR 1910.1030]. In health-care facilities, the term generally refers to all pathogenic organisms.

Detergent : Cleaning agent that makes no antimicrobial claims on the label. They comprise a hydrophilic component and a lipophilic component and can be divided into four types: anionic , cationic, amphoteric, and non-ionic detergents.

Disinfectant : Usually a chemical agent (but sometimes a physical agent) that destroys disease- causing pathogens or other harmful microorganisms but might not kill bacterial spores. It refers to substances applied to inanimate objects. EPA groups disinfectants by product label claims of "limited," "general, "or "hospital" disinfection.

GLOSSARY

Disinfection : Thermal or chemical destruction of pathogenic and other types of microorganisms. Disinfection is less lethal than sterilization because it destroys most recognized pathogenic microorganisms but not necessarily all microbial forms (e.g., bactericidal spores).

Flash Chemosterilization: A rapid sterilization (sporicidal) method for medical instruments, surfaces etc. by using chemical(s).

High-Level Disinfectant : Agent capable of killing all vegetative forms of micro-organisms but not all spores. It is expected to kill some spores when used at higher concentration for a prolonged contact time.

Infectious Microorganism : Microorganisms capable of producing disease in appropriate hosts. Inorganic and organic load: naturally occurring or artificially placed inorganic (e.g., metal salts) or organic (e.g., proteins) contaminants on a medical device before exposure to a microbicidal process.

Minimum Effective Concentration (MEC): The minimum concentration of a liquid chemical germicide needed to achieve the claimed microbicidal activity as determined by dose-response testing. Sometimes used interchangeably with minimum recommended concentration.

Mycobacteria: Bacteria with a thick, waxy coat that makes them more resistant to chemical germicides than other types of vegetative bacteria.

Parts Per Million (ppm): Common measurement for concentrations by volume of trace gases in the air (or chemicals in a liquid): 1 volume of gas per 1 million volumes of contaminated air. For liquids, Parts per million = g/ml or mg/L.

Purification Index: It is defined as A_{235}/A_{280} , where A_{280} is the ultraviolet (UV) absorbance of monomeric glutaraldehyde at its max 280 nm and A_{235} is that of polymeric glutaraldehyde at its max 235 nm. This method has been widely used to grade Glutaraldehyde products. Lower purification index values represent higher purity.

Shelf Life: Length of time an undiluted or use dilution of a product can remain active and effective.

Sterilization : Validated process used to render a product free of all forms of viable microorganisms including all spores.

LD50 (abbreviation for "Lethal Dose, 50% ") : In toxicology LD50 of a drug, toxin, chemical, radiation, or pathogen is the dose required to kill half the members of a tested population after a specified test duration. LD50 figures are frequently used as a general indicator of a substance's acute toxicity.

Products and Application Areas

PRODUCTS	MEDICAL		INDUSTRIAL			LABORATORIES	WATER DISINFECTION
	HOSPITALS	DENTISTRY	PHARMA-CEUTICALS	HOTEL FOOD & BEVERAGES	DAIRY		
HAND DISINFECTANTS							
ALCONOX [®]	✓	✓	✓	✓	✓	✓	
ECOMAX [™]	✓	✓		✓		✓	
PURELLIUM GEL [™]	✓	✓		✓		✓	
BIOSCRUB [™]	✓						
HITMAX [®]	✓	✓	✓	✓	✓	✓	
STERIMAX [®]	✓	✓		✓		✓	
TRIOSEPT [™]	✓	✓	✓	✓	✓	✓	
ANTISEPTICS & SKIN DISINFECTANTS							
ACTALL [™]	✓	✓	✓	✓	✓	✓	
NUSEPT [™]	✓	✓	✓	✓	✓	✓	
SAVINOX [®]	✓		✓				
SAVINOX PLUS [®]	✓		✓				
SAVINOX-5X [™]	✓						
SURGIPREP [™]	✓						
SURGIPREP-CHX [™]	✓						
ZYTALL [™]	✓	✓	✓	✓	✓	✓	
ENVIRONMENT & SURFACE DISINFECTANTS							
AEROSEPT [™]	✓	✓		✓		✓	
	✓	✓	✓			✓	
LINOSAFE [™]	✓	✓	✓	✓			
MICROLYSE [®]	✓	✓	✓	✓	✓	✓	
SILVICIDE [®]	✓	✓	✓	✓	✓	✓	✓
SURFAX [™]	✓	✓	✓	✓	✓	✓	
TOTASEP [™]	✓	✓	✓	✓	✓		
CLEANING AGENTS							
CLENZYME [™]	✓	✓	✓	✓		✓	
ZAPRUST [™]	✓	✓	✓	✓	✓	✓	
INSTRUMENT DISINFECTANTS							
ACITAR [™]	✓	✓					
ENDOMAX [™]	✓	✓					
NOVACIDE [®]	✓	✓					
OPAHYDE [™]	✓	✓					
INSTRUMENTS / EQUIPMENTS							
BIOSTAR [™]	✓	✓	✓	✓	✓	✓	
BIOFLOW [™]	✓	✓	✓	✓	✓	✓	
HOUSEKEEPING SEGMENT							
PURESAFE [™]	✓	✓	✓	✓	✓	✓	✓
ALCOMOP [™]	✓	✓	✓	✓	✓	✓	
MAXISHINE [™]	✓	✓	✓	✓	✓	✓	
EXIT [™]	✓	✓	✓	✓	✓	✓	

A Division of Tulip Diagnostics (P) Ltd.



Applying Science In Disinfection

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