



NOT JUST A PRODUCT. IT'S A TECHNOLOGY. SO WHAT EXACTLY IS G-CIDE?



G-cide is a worldwide patented surfactant-modified gluteraldehyde. The development of G-cide technology has been a breakthrough in anti-microbial, anti-viral and anti-fungal disinfection. Stable for up to 3 years.



STABILISED at a near neutral pH, corrosion, irritation and fumes are not a problem



Non-corrosive to metals, plastics or skin



Ready to use, no mixing or special handling equipment required



Effective against organic waste



Biodegradable and environmentally friendly



G-cide does not cause microbial resistance



Non-Nitrosamine forming chemical



INTERNATIONAL GOLD MEDAL WINNER



A GOLD MEDAL WINNER AT THE 26TH CONGRESS OF INVENTORS IN GENEVA IN 1998



The award was based on three criteria :

- Efficacy of the disinfectant
- Biodegradability
- User and environmentally friendliness

The disinfectant was chosen out of 52 competitors.



INTRODUCTION



G-CIDE 9HCA IS A WIDELY USED, EFFECTIVE STABILISED DISINFECTANT.

The applications are unlimited due to its non-toxic and user friendly nature. The application of G-cide technology renders it pH neutral, non-corrosive, biodegradable and user friendly. G-cide 9HCA significantly improves the usage and range of applications. The technology is proven and has been commercialised in a range of products.

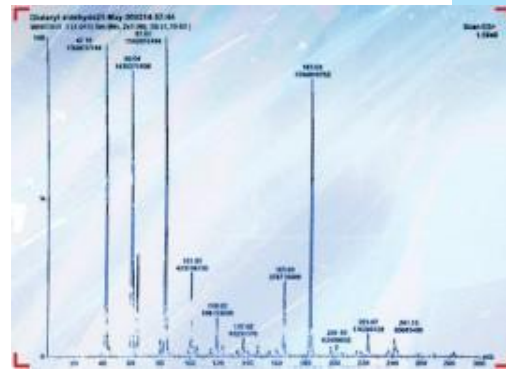
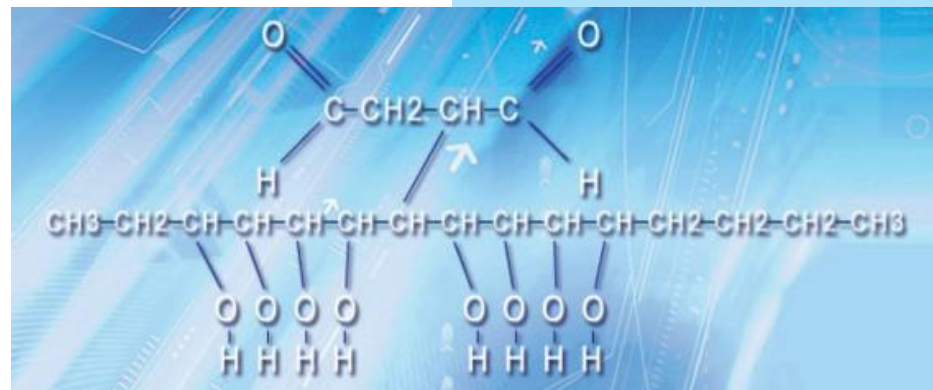
Products using G-cide 9HCA have been utilised in the medical, veterinary, agricultural and personal health care sectors.



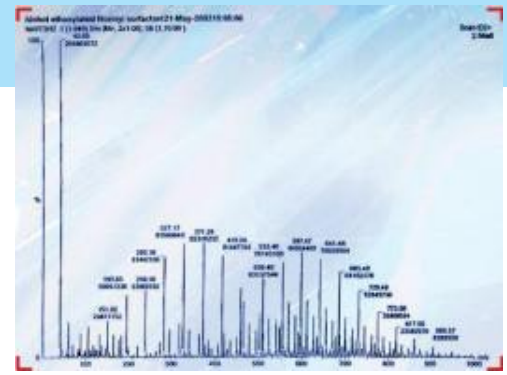
G-CIDE COMPLEX



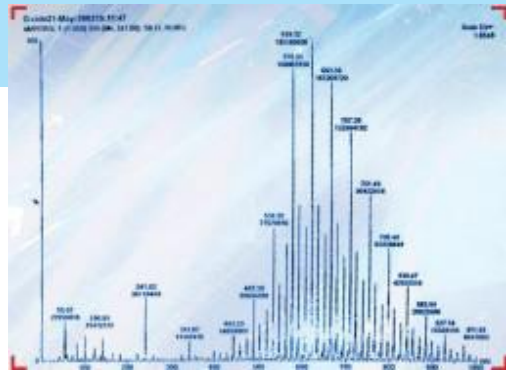
Stable at temperatures below 50 deg C.
 At temperatures greater than 50 deg C the complex breaks up and behaves like its individual components.
 Not a new molecule as NEW BONDS between elements are not permanent.



GLUTARAL SCAN
 Note the scan is peaked in shape and ranges from 40 - 300



NONIONIC SURFACTANT SCAN
 Note the scan is lower and flat in practice in the region of 100 to 900



G-CIDE SCAN
 Note the scan is peaked in the region of 400 to 1000



WHY IS G-CIDE BETTER THAN OTHER SANITISING SOLUTIONS?



G-CIDE 9HCA IS A pH NEUTRAL, STABILISED-GLUTERADEHYDE SOLUTION

that was developed in South Africa and has been patented worldwide.

The importance of this product lies in the fact that, until now, the chemical most widely recognized around the world for killing bacteria, viruses, fungi, moulds and spores, namely glutaraldehyde (C₅H₈O₂), was unusable because of its instability, volatility, corrosivity and needed to be activated (stabilized) in-situ.

With the development of G-cide™, you can now have the most effective chemical in the world for killing bacteria, viruses, fungi, moulds and spores and it is user-friendly! No special chemical-breathing apparatus or clothing is required. G-cide™ is as chemically inert as water, which means that there is not the added burden of corrosion in the sanitization process, unlike the chlorine- and peroxide-based sanitizers most commonly used today.

Now you can remove the organisms that cause illness in humans, safely and effectively, without costly downtime. The easy-to-use nature of G-cide™ products means that no specialized training is required for staff that will be using the product on a daily basis. The concentrated solutions are simply diluted prior to use, whenever and wherever required. In-line addition of G-cide™ products to washing pipelines ensures that routine cleaning operations now have the added advantage of being sanitized at the same time! G-cide™ products operate optimally at room temperature so there is no requirement for heating with steam to sanitize your equipment, thereby saving you the cost of heating your water prior to use!



REGISTRATIONS / ENDORSEMENTS



- **SABS** – as a detergent disinfectant in terms of the Compulsory Registration of Disinfectants and Detergent Disinfectants
- A Sporocidal disinfectant for medical instruments
- **The Department of Agriculture** for animal veterinary uses
- **CE Mark** High Level Sporocidal Disinfectant Solution
- **Babb Report from UK** for Sporocidal activity and efficacy against TB
- **Keymed Olympus** endorsement

SABS

Rinsing properties

Passes SABS 1593

Residual matter

Nil SABS 1593 (soluble matter)

Sporocidal

Sporocidal (SABS1593: kills bacillus subtilis globli var niger Log 6 in 4 hours at RT and 30 mins at 38-40 deg C)
EN testing by M&L Labs "Bureaux Veritas"

Bactericidal

Bactericidal at 5mins SABS 1593
10mins Resistant TB (UK testing)

Virucidal

SABS tested for envelope and non envelope viruses

HIV-5mins

HEP B 10mins etc.

Fungicidal

Fungicidal SABS 1593



G-CIDE PATENTS



South Africa 1993

China 1996

India 1996

USA 1997

Belgium 1997

Australia 1997

Japan 1998

Canada 1998

EU (all 15 countries) 2000

UK 2000

New Zealand 2000

P.C.T patented 2003





G-CIDE REGISTRATIONS



SABS PERMITS

- General use disinfectant and cleaner.
- General use disinfectant.
- Sporocidal for Medical instruments.
- Skin cleanser and disinfectant

AGRICULTURE

- Act G36 stock remedies and animal housing sanitizing and disinfection. Dairy Cow teat dip.
- ALL 30 PRODUCTS are Registered under the South African compulsory Act for disinfectants.
- C.T.F.A – own unique INCI name.
- Registered HSE in the UK & cleared safe by the NPIS UK.

- Passes the new proposed EU disinfectants qualifying tests.
- BSEN 1276, 14476
- NZ agricultural research institute validated use for food industry (carcass wash).
- NZ for general disinfection and cleaning.
- Spain for industrial disinfection and cleaning.
- Spain for the food industry.
- China for all medical products.
- EPA registered testing at Southern Research Institute on G-cide for efficacy on HPAI H5N1.



G-CIDE CERTIFICATES

REGISTRATION CERTIFICATE
 Registered as required by the Primary Regulations for Registration and Pre-qualification as published in Government Gazette No. 33937 of 15 May 2016 under the Fertilizer Act No. 35 of 1957.

SABS
 REGULATIONS FOR THE REGISTRATION OF FERTILIZERS

BB SOLUTIONS
 F.O. BOX 549, ROSSBUSH 2445
 TEL: (08) 29 - 247 2447

Page 1 of 1

1. Identification
 Applicant: **BB SOLUTIONS**
 Proprietary designation: **G-CIDE 1000 SYSTEM SOLUTIONS**
 Formulation type: **ANTIFUNGAL / ANTIBACTERIAL**

2. Proof of compliance
 The formulation has been successfully examined for compliance with the relevant requirements of Schedule 6.1 and 7.2 of the Compulsory Specifications for Fertilizers and Diagnostic-Adjuvants as per SABS Inspection Report No. 1

3. Registration
 Registration number: **Registered for the following classes: AFTZGNSGNSYNSYNSNS BACTERIOCIDAL, FUNGICIDAL AND VIRUCIDAL.**
 The applicant must affix the registration number to the labelling of the formulation.

4. Conditions of registration
 4.1 The formulation shall be as set out in full compliance with the requirements of the Compulsory Specifications for Fertilizers and Diagnostic-Adjuvants.
 4.2 Statements and priorities of content shall meet as per test reports for compliance.
 4.3 If variation is requested by the applicant, this registration certificate shall be regarded as null and void and change is to.
 4.4 This registration certificate remains the property of the SABS and may be withdrawn if any of the conditions attached to it are not complied with.

MANAGER (Signature) **QUALITY SUPERVISOR** (Signature)
 Chemical Mechanical & Material Chemical Mechanical & Material

SOUTH AFRICAN BUREAU OF STANDARDS
 1, Beaufort West, Beaufort West, 7130, Western Cape, South Africa
 Tel: (022) 632 9500, Fax: (022) 632 9501, Email: info@sabs.org.za, Website: www.sabs.org.za

TEST REPORT
SABS

MICROBIOLOGY DEPARTMENT 104

BB Solution
 500mg/ml (1000mg/l)
 F.O. Box 549, Rossbush 2445

Microbiology ID-007
 Microbiology ID-02-007
 Revision: 10/2010
 SABS/MS-007/104-2
 October 1 2011

G-CIDE PLUS

1. DESCRIPTION OF SAMPLES
 Two samples labeled "G-CIDE Plus BB SOLUTIONS" were received on 28/08/11 and tested as follows: 1000mg/l and 500mg/l.

2. TESTS REQUESTED
 Empty tubes Test (Sterility), Substr. Color Test and an efficacy test, using Penicillium ergatum, Penicillium ergatum and Bacillus subtilis spores as test organisms.

3. METHOD OF TEST
 The samples were tested in accordance with SABS 104-014 Specifications for Diagnostic Media as described for use as media for fungi.

4. In compliance with Government Gazette No. 33937 of 15 May 2016, Section 6.1 and 7.2 of the Compulsory Specifications for Fertilizers and Diagnostic-Adjuvants as per SABS Inspection Report No. 1.

MANAGER (Signature) **QUALITY SUPERVISOR** (Signature)
 Chemical Mechanical & Material Chemical Mechanical & Material

SABS Commercial test report
 SABS/104/014/104-1

RESULTS

TEST	UNIT	REQUIREMENT	TEST RESULT	TEST RESULT	TEST RESULT
Empty Tube Test (Sterility)	None	None	None	None	None
Substr. Color Test	None	None	None	None	None
Efficacy Test	None	None	None	None	None

REMARKS
 This report is submitted with Section 6.1 of SABS 104-014, the document shall not be used for purposes of the law applicable within the given time limit.

TEST REPORT (Signature) **QUALITY SUPERVISOR** (Signature)
 Chemical Mechanical & Material Chemical Mechanical & Material

SGS

BB Solutions
 500 mg/l (1000 mg/l)
 F.O. Box 549, Rossbush 2445

ISO 9001:2000

P. Earl

SGS

SGS

BB Solutions
 500 mg/l (1000 mg/l)
 F.O. Box 549, Rossbush 2445

ISO 13485:2003

P. Earl

SGS

SGS

BB Solutions
 500 mg/l (1000 mg/l)
 F.O. Box 549, Rossbush 2445

Directive 93/42/EEC

P. Earl

CE 0120

SGS

*In process of renewal 2020



PRODUCTS ALREADY FORMULATED, TRIED AND TESTED IN SOUTH AFRICA



AGRICULTURAL MARKET

- Animal wash solution with disinfectant.
- Pre-slaughter animal disinfection.
- Carcass disinfection prior to processing through Abattoirs.
- Refrigeration disinfection.
- Degreaser cleaner/disinfectant for all types of animal housing cleaning.
- Poultry house disinfection & cleaning products.
- All animal handlers hand washing soap.
- All types of animal feed dishes and water supply pipes cleaning and disinfection.
- Cell culture laboratory cleaning and disinfection of all glass ware, floors and walls.
- Egg washing and disinfection.
- Trucks and all transport container disinfection (in particular for the control of foot and mouth disease).
- Shipping bilge tanks cleaning and disinfection.
- Fisheries cleaning and disinfection.
- Birds cage, food dishes disinfection.
- Fish tank disinfection.
- Piglets / pigs sprayed to reduce the greasy pig syndrome.
- Horse shampoo/disinfectant.
- All hooved animal foot disinfectant/spray
- Milking cows and buffalo udder disinfection pre and post milking.
- Cows and buffalo udder cream/disinfectant.
- Cows and buffalo udder impregnated wipes.
- Milk Parlor disinfectant and cleaner all in one product.
- From the cell culture cuttings disinfection.
- Growing rooms disinfection.
- Seeds disinfection.
- Seedlings water spray disinfection.
- Hot house disinfection.
- Plant bulbs disinfection.
- Green house disinfection.
- Hydro phonics tunnel disinfection.
- Mushroom production disinfection from spores multiplication, growing and packaging.
- Environment and tray disinfection.
- Wheat and large filed aerial disinfection by crop sprayers.
- All cutting equipment disinfection, used during harvest time.
- All transportation disinfection, from rail trucks, road trucks, refrigerated vehicles.
- Washing of all produce from the farm prior to packaging and adding protective coatings.



PRODUCTS ALREADY FORMULATED, TRIED AND TESTED IN SOUTH AFRICA



DOMESTIC MARKET

- Disinfectant/dishwashing liquid.
- Multipurpose cleaner/disinfectant.
- Floor and tile cleaner/disinfectant.
- Carpet cleaner and disinfectant.
- Toilet cleaner and disinfectant.
- Disinfectant air freshener alcohol aerosol spray.
- All purpose cleaner/disinfectant.
- Automatic dishwashing machine rinse aid with disinfectant.
- High foam laundry powder with disinfectant.
- Laundry all purpose large bar of soap/disinfectant.
- General disinfectant for drains and rubbish bins.
- Toilet bowl flush with refill – disinfect toilet each time you flush them.
- All purpose degreaser, disinfectant cleaner.
- Fabric softener plus disinfectant.
- High foam laundry washing powder with disinfectant.
- Disinfectant alcohol aerosol spray.
- Water based disinfectant pump spray.
- Alcohol wipes packed in a tub of 80 or single for injection site disinfection, hands and hand held instruments.



G-CIDE 9HCA EFFICACY TABLE - PEOPLE



Spectrum of Organisms with time and concentration required to achieve a 10log6 reduction in load

Germ Type	Name of Germ	Problems caused	Conc. of G-cide™ (%)	Test time
Bacteria	Acinebacter	Hospital infections	0.20	3 min
Bacteria	Campylobacteria jejuni	Bacterial diarrhoea	0.20	3 min
Bacteria	Clostridium bifermentans	Gas gangrene, botulism, tetanus	0.20	3 min
Bacteria	Clostridium tetani	Gas gangrene, botulism, tetanus	0.30	5 min
Bacteria	Clostridium difficia	Gas gangrene, botulism, tetanus	0.30	5 min
Bacteria	Cryptosporidium legionela	Legionnaires Disease	0.30	5 min
Bacteria	Escherichia coli	Enteritis	0.20	3 min
Bacteria	Klebsiella pneumoniae	Pneumonia, respiratory tract infections	0.20	3 min
Bacteria	Listeria monocytogenes	Food poisoning	0.20	3 min
Bacteria	Mycobacterium leprosi	Leprosy	0.30	5 min
Bacteria	Mycobacterium tuberculosis	Tuberculosis	2.00	4 min
Bacteria	Mycobacterium tuberculosis	Tuberculosis	0.20	10 min
Bacteria	Proteus vulgaris	Gangrene	0.20	3 min
Bacteria	Proteus mirabilis	Gangrene	0.20	3 min
Bacteria	Pseudomonas aeruginosa	Dermatitis	0.20	3 min
Bacteria	Salmonella vibriocholeraesuis	Cholera	0.20	3 min
Bacteria	Salmonella enterities	Enteritis	0.20	3 min
Bacteria	Salmonella pyllorum	Food poisoning	0.20	3 min
Bacteria	Salmonella typhi	Typhoid	0.20	3 min
Bacteria	Serratia marcescens	Food poisoning	0.20	3 min
Bacteria	Staphylococcus aureus	Infections, Food poisoning	0.20	3 min
Bacteria	Staphylococcus epidermis	Infections, Food poisoning	0.20	3 min
Bacteria	Streptococcus faecalis	Infections, Food poisoning	0.20	3 min
Fungi	Aspergillus fumigatus	Aspergillosis, aflatoxin	0.30	5 min
Fungi	Aspergillus niger*	Aspergillosis, aflatoxin	2.00	15 min
Fungi	Candida albicans	Thrush	0.30	5 min
Fungi	Microsporium	Thrush	0.30	5 min
Fungi	gyseum Trichophyton	Skin and hair fungi	0.30	5 min
Fungi	mentagrophytes Mucor	Athletes foot	0.30	5 min
Fungi	hiemalis	Skin and lung infections	0.30	5 min
Fungi	Penicillium curysogerm	Spoiling of food	0.20	5 min
Fungi	Saccharomyces cerevisae	Fermentation	0.20	3 min
Fungi	Trychophyton gyseum	Ringworm	0.30	5 min
Spores	Bacillus anthrax	Anthrax ONLY FOR HLD	2.00	10 min
Spores	Bacillus subtilus**	Meningitis ONLY FOR HLD	2.00	4 hours
Spores	Bacillus cereus	Food poisoning ONLY FOR HLD	2.00	10 min
Spores	Bacillus stearothermophylus	Food poisoning ONLY FOR HLD	2.00	10 min
Spores	Clostridium sporogenes	Food poisoning ONLY FOR HLD	2.00	10 min
Virus	Arenavirus junin	Haemorrhagic fever		



G-CIDE 9HCA EFFICACY TABLE -



Spectrum of Organisms with time and concentration required to achieve a 10log6 reduction in load

Germ Type	Name of Germ	Problems caused	Conc. of G-cide™ (%)	Test time
Ebola Virus	Use the HLD product.		2.00	3 min
Virus	Arenavirus lassa	Lassa virus	2.00	3 min
Virus	Arenavirus marchupo	Haemorrhagic fever - Ebola variety	2.00	3 min
Virus	Coronavirus (>91 types)	Common cold	0.20	3 min
Virus	Cytomegalovirus	Warts, Papillomas	0.20	3 min
Virus	Enterovirus-echovirus (31 types)	Myositis	0.20	3 min
Virus	Enterovirus-polio (3 types)	Polomyelitis	0.20	3 min
Virus	Flavivirus	Japanese B encephalitis	0.20	3 min
Virus	Hepadnaviridae	Hepatitis A-I	0.20	5 min
Virus	Herpes Simplex I	Fever blisters	0.20	3 min
Virus	Herpes Simplex II	Genital Herpes	0.20	3 min
Virus	Haemophilus influenzae	Influenza types A, B and C	0.20	3 min
Virus	Lentivirus	HIV Types I-VII - AIDS	0.20	3 min
Virus	Mastadenovirus-ARD (37 types)	Respiratory Infection	0.20	3 min
Virus	Oncovirus	Tumours, sarcoma, leukaemia cancers	0.20	3 min
Virus	Oncovirus	Tumours and cancer	0.20	3 min
Virus	Orthohepadnavirus	Hepatitis B	0.02	3 min
Virus	Orthopox virus - vaccina	Smallpox-resistant	0.20	5 min
Virus	Orthopox virus - Variola	Smallpox	0.20	5 min
Virus	Paramyxovirus	Measles	0.20	5 min
Virus	Paramyxovirus	Respiratory Syncytial virus	0.20	5 min
Virus	Pneumovirus TRT	Pneumonia, respiratory tract infections	0.20	3 min
Virus	Polyomavirus-B.K. virus	sub-clinical and latent infections	0.20	3 min
Virus	Polyomavirus-J.C. virus	Multifocal leukoencephalostopy	0.20	3 min
Virus	Reovirus	Respiratory tract infections	0.20	3 min
Virus	Rhinovirus (>100 types)	Common cold	0.20	3 min
Virus	Rotavirus	Infantile gastroenteritis	0.20	3 min
Virus	Togaviridae alphavirus	Yellowfever	0.20	3 min
Virus	Togaviridae flavivirus	Dengue (1&2), haemorrhagic fever	0.20	3 min
Virus	Bunyavirus laCrosse	la Crosse encephalitis	0.20	3 min
Virus	Togaviridae group A & B	Encephalitis	0.20	3 min
Virus	Togaviridae rubivirus	Rubella (German Measles), encephalitis	0.20	3 min
Virus	Varicella-Zoster	Shingles, Chicken Pox	0.30	5 min
Virus	Ebola virus	Ebola fever, haemorrhagic fever	0.30	5 min
Virus	Rift Valley Fever virus	Rift Valley Fever	0.30	5 min
Virus	Bunyavirus akabane	Encephalitis	0.30	5 min

NOTES: ALL G-Cide products of the order 0.1 – 0.2% active G-cide have the same efficacy.

1. Bacterial efficacy verified by SABS tests 1593, 1616 and 1615.

2. Spore efficacy determined by using the strongest spore** as a standard, by the British Kelsey Sykes test (modified) and SABS 1593 of 1994.

3. Fungal efficacy verified by using the strongest fungus* and verified by SABS 1593 of 1994 and SABS 1616/1615.

4. Viral efficacy verified by the SABS except for:

- a) HIV in the presence of 20% serum organic matter, tests done by Stellenbosch University, March 1992, South Africa,
- b) Hepatitis B tests performed in Japan.

All G-cide™ products are registered with the SABS in terms of the Compulsory Registration of Disinfectants and Detergent Disinfectants, Gazette 19999 of 14 May 1999.

Testing Authority:

South African Bureau of Standards (SABS),
1 Dr. Lategan Road, Groenkloof, Pretoria, South Africa, Private Bag X191, Pretoria, 0001. Tel +27 (0) 12 428 7911 Fax +27 (0) 12 344 1568



G-CIDE 9HCA EFFICACY TABLE - ANIMALS



Spectrum of Organisms: 1Log6 reduction

Animal Affected	Germ Type	Name of Germ	Illness	Conc. (%)	Test time
All	Bacteria	Bacillus (Spores)	Anthrax, meningitis, septicaemia	2.00	10 min
All	Bacteria	Bacillus subtilis	Meningitis	2.00	4 hours
All	Bacteria	Campylobacteria	Vibriosis	0.10	3 min
All	Bacteria	Clostridium spp,	Gas gangrene, blackleg, botulism, tetanus	0.20	3 min
All	Bacteria	Escherichia coli	Enteritis	0.10	3 min
All	Bacteria	Haemophilus spp.	Meningitis, pneumonia	0.10	3 min
All	Bacteria	Klebsiella spp.	Pneumonia, Respiratory infections	0.20	3 min
All	Bacteria	Mycobacterium TB	Tuberculosis	2.00	4 min
All	Bacteria	Mycobacterium TB	Tuberculosis	0.20	10 min
All	Bacteria	Pasteurelia spp.	Shipping fever	0.20	3 min
All	Bacteria	Pseudomonas Aeruginosa	Enteritis	0.20	3 min
All	Bacteria	Salmonella spp.	Gastroenteritis, food poisoning	0.10	3 min
All	Bacteria	Staphylococcus Aureus	Gangrene, periodontal disease, meningitis	0.10	3 min
All	Bacteria	Streptococcus spp.	Gangrene, meningitis, RTI	0.10	3 min
All	Fungi	Absydia Corimbifera		0.30	5 min
All	Fungi	Aspergillus Flavivirus	Aspergillosis, aflatoxin	0.30	5 min
All	Fungi	Aspergillus Niger	Aspergillosis, aflatoxin	2.00	15 min
All	Fungi	Geotrichum Candidum		0.30	5 min
All	Fungi	Microsporium spp,		0.30	5 min
All	Fungi	Scopulariopsis		0.20	5 min
All	Fungi	Trichophyton Verucosum	Skin infections	0.30	5 min
All	Fungi	Trichosporum Cutaneum	Skin infections	0.30	5 min
All	Spores	Clostridium Butyricum Spores	Food poisoning	0.30	15 min
All	Spores	Clostridium Sporogenes	Food Poisoning	0.30	5 min
All	Viruses	Adenoviridae	Respiratory Infection	2.00	3 min
All	Viruses	Arenavirus		2.00	5 min
All	Viruses	Polyomavirus		0.20	5 min
Cats	Fungi	Trichophyton Mentagrophytes	Skin infections	0.30	5 min
Cats	Viruses	Calicivirus	Feline calicivirus	0.20	5 min
Cats	Viruses	Herpetoviridae - Herpes virus	Feline herpes	0.20	3 min
Cats	Viruses	Parvoviridae	Feline parvovirus	0.20	5 min
Cats	Viruses	Retrovirus	Oncovirus-Leukemia	0.20	5 min
Cats	Viruses	Retrovirus	Oncovirus sarcoma	0.20	5 min

NOTES: ALL G-Cide products of the order 0.1 – 0.2% active G-cide have the same efficacy.

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2. Spore efficacy determined by using the strongest spore** as a standard, by the British Kelsey Sykes test (modified) and SABS 1593 of 1994.

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G-CIDE 9HCA EFFICACY TABLE - ANIMALS



Spectrum of Organisms: 1Log6 reduction

Animal Affected	Germ Type	Name of Germ	Illness	Conc. (%)	Test time
Cattle	Viruses	Coronavirus	Neonatal calf diarrhoea	0.20	5 min
Cattle	Viruses	Herpetoviridae - Herpes virus	Epstein Barr (infectious mononucleosis)	0.20	3 min
Cattle	Viruses	Herpetoviridae - Herpes virus	Ulcerative mammalitis	0.20	3 min
Cattle	Viruses	Herpetoviridae - Herpes virus	Infectious Bovine rhinotracheitis	0.20	3 min
Cattle	Viruses	Mastadeno virus	Bovine Hepatitis	0.20	3 min
Cattle	Viruses	Orthomyxoviridae	Influenza A	0.20	5 min
Cattle	Viruses	Papoviridae - Papillomavirus	Bovine Papillomatosis	0.20	3 min
Cattle	Viruses	Paramyxovirus	Rinderpest	0.20	5 min
Cattle	Viruses	Paramyxovirus	Pestes des Petits ruminants	0.20	5 min
Cattle	Viruses	Parvoviridae	Bovine parvovirus - Maditch	0.20	5 min
Cattle	Viruses	Picornaviridae	Bovine enterovirus	0.20	3 min
Cattle	Viruses	Poxviridae	Pseudo cowpox	0.20	3 min
Cattle	Viruses	Poxviridae	Papular stomatitis	0.20	3 min
Cattle	Viruses	Poxviridae	Lumoy skin disease	0.20	3 min
Cattle	Viruses	Poxviridae	Ulcerative dermatosis	0.20	3 min
Cattle	Viruses	Reovirus	Lbaraki	0.20	5 min
Cattle	Viruses	Retrovirus	Oncovirus-Leukemia	0.20	5 min
Cattle	Viruses	Retrovirus	Oncovirus sarcoma	2.00	5 min
Cattle	Viruses	Rhabdoviridae	Vesicular stomatitis	0.20	5 min
Cattle	Viruses	Rhinovirus	Foot and mouth disease	0.20	3 min
Cattle	Viruses	Rubivirus	Bovine viral diarrhoea	0.20	5 min
Cattle	Viruses	Spumavirus	Bovine Syncytial virus	0.21	5 min
Dogs	Fungi	Microsporium Canis		0.30	5 min
Dogs	Fungi	Trichophyton Mentagrophytes	Skin Infections	0.30	5 min
Dogs	Viruses	Coronavirus	Canine coronevirus	0.20	5 min
Dogs	Viruses	Mastadeno virus	Infectious Canine Hepatitis	0.20	3 min
Dogs	Viruses	Moribillivirus	Distemper	0.20	3 min
Dogs	Viruses	Papoviridae - Papillomavirus	Canine Papillomatosis	0.20	3 min
Dogs	Viruses	Parvoviridae	Canine parvovirus	0.20	5 min
Dogs	Viruses	Rhabdoviridae	Rabies	0.20	5 min
Horses	Fungi	Trichophyton Mentagrophytes	Skin Infections	0.30	5 min
Horses	Viruses	Herpetoviridae - Herpes virus	Equine Rhino Pneumonitis	0.20	3 min
Horses	Viruses	Mastadeno virus	Equine Hepatitis	2.00	3 min

NOTES: ALL G-Cide products of the order 0.1 – 0.2% active G-cide have the same efficacy.

1. Bacterial efficacy verified by SABS tests 1593, 1616 and 1615.

2. Spore efficacy determined by using the strongest spore** as a standard, by the British Kelsey Sykes test (modified) and SABS 1593 of 1994.

3. Fungal efficacy verified by using the strongest fungus* and verified by SABS 1593 of 1994 and SABS 1616/1615.

4. Viral efficacy verified by the SABS except for:

- a) HIV in the presence of 20% serum organic matter, tests done by Stellenbosch University, March 1992, South Africa,
- b) Hepatitis B tests performed in Japan.

All G-cide™ products are registered with the SABS in terms of the Compulsory Registration of Disinfectants and Detergent Disinfectants, Gazette 19999 of 14 May 1999.

Testing Authority:

South African Bureau of Standards (SABS),
1 Dr. Lategan Road, Groenkloof, Pretoria, South Africa, Private Bag X191, Pretoria, 0001. Tel +27 (0) 12 428 7911 Fax +27 (0) 12 344 1568



G-CIDE 9HCA EFFICACY TABLE - ANIMALS



Spectrum of Organisms: 1Log6 reduction

Animal Affected	Germ Type	Name of Germ	Illness	Conc. (%)	Test time
Horses	Viruses	Orbivirus	African horse sickness	0.20	3 min
Horses	Viruses	Orthomyxoviridae	Influenza	0.20	5 min
Horses	Viruses	Papoviridae - Papiilomavirus	Equine Papillomatosis	0.20	3 min
Horses	Viruses	Rhinovirus	Equine rhinovirus	0.20	3 min
Horses	Viruses	Rubivirus	Encephalitis	0.20	5 min
Horses	Viruses	Rubivirus	Equine arteritis Vesicular	0.20	5 min
Pigs	Viruses	Calicivirus	Exatithema Transmittable Gastro-	0.20	5 min
Pigs	Viruses	Coronavirus	enteritis Pseudorabies (Aujesky's	0.20	5 min
Pigs	Viruses	Herpetoviridae - Herpes virus	Disease) Swine cytomegalovirus	0.20	3 min
Pigs	Viruses	Herpetoviridae - Herpes virus	African Swine Fever	0.20	3 min
Pigs	Viruses	Iridoviridae	Porcine Hepatitis	0.20	3 min
pigs	Viruses	Mastadeno virus	Porcine Influenza	0.20	3 min
Pigs	Viruses	Orthomyxoviridae	Influenza A	0.20	5 min
Pigs	Viruses	Orthomyxoviridae	Porcine parvovirus	0.20	5 min
Pigs	Viruses	Parvoviridae	SVD Swine vesicular disease	0.20	5 min
Pigs	Viruses	Picornaviridae	Porcine enterovirus	0.20	3 min
Pigs	Viruses	Picornaviridae	Vesicular stomatitis	0.20	3 min
Pigs	Viruses	Rhabdoviridae	Foot and mouth disease	2.00	5 min
Pigs	Viruses	Rhinovirus	Teshen disease - encephalomyelitis	0.20	3 min
Pigs	Viruses	Rhinovirus	Rotavirus - diarrhoea	0.20	3 min
Pigs	Viruses	Rotavirus	Hog cholera	0.20	3 min
Pigs	Viruses	Togaviridae Pestivirus	Aspergillosis	0.20	3 min
Poultry	Fungi	Aspergillus Fumigatus	Egg Drop	0.30	5 min
Poultry	Viruses	Aviaden Virus	Infectious bronchitis	0.20	3 min
Poultry	Viruses	Coronavirus	Hepatitis B	0.20	5 min
Poultry	Viruses	Hepadnaviridae	Mareks disease	0.20	10 min
Poultry	Viruses	Herpetoviridae - Herpes virus	Infectious Laryngotracheitis	0.20	3 min
Poultry	Viruses	Herpetoviridae - Herpes virus	Fowl plague	0.20	3 min
Poultry	Viruses	Orthomyxoviridae	Newcastles Disease	0.20	5 min
Poultry	Viruses	Paramyxovirus	Rhinotracheitis	0.20	5 min
Poultry	Viruses	Pneumovirus TRT		0.20	3 min

NOTES: ALL G-Cide products of the order 0.1 – 0.2% active G-cide have the same efficacy.

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G-CIDE 9HCA EFFICACY TABLE - ANIMALS



Spectrum of Organisms: 1Log6 reduction

Animal Affected	Germ Type	Name of Germ	Illness	Conc. (%)	Test time
Poultry	Viruses	Poxviridae	Fowl pox	0.20	3 min
Poultry	Viruses	Poxviridae	Leporipox virus	0.20	3 min
Poultry	Viruses	Reovirus	Runting and strutting syndrome	2.00	5 min
Poultry	Viruses	Reovirus	Tenosynovitis	0.20	5 min
Poultry	Viruses	Reovirus	Avian viral arteritis	0.20	5 min
Poultry	Viruses	Retrovirus	Oncovirus Rous sarcoma - Leukemia	0.20	5 min
Poultry	Viruses	Rhinovirus	Encephalomyelitis	0.20	3 min
Poultry	Viruses	Rotavirus	Gumboro - Infectious Borsal disease	0.20	3 min
Rabbits	Viruses	Bunyavirus	Californian encephalitis	0.20	5 min
Sheep	Viruses	Bunyavirus	Nairobi sheep disease	0.20	5 min
Sheep	Viruses	Lentivirus	Mardi & Visna	0.10	5 min
Sheep	Viruses	Mastadeno virus	Ovine Hepatitis	0.20	3 min
Sheep	Viruses	Orbivirus	Blue Tongue	0.20	3 min

NOTES: ALL G-Cide products of the order 0.1 – 0.2% active G-cide have the same efficacy.

1. Bacterial efficacy verified by SABS tests 1593, 1616 and 1615.

2. Spore efficacy determined by using the strongest spore** as a standard, by the British Kelsey Sykes test (modified) and SABS 1593 of 1994.

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WHAT IS G-CIDE 9HCA HLD?



GLUTARAL C11-C15 PARETH 9 = INCI name for G-cide

G-cide HLD is a pH-neutral, low volatile and non irritant.

It is the most effective chemical for killing bacteria, viruses, fungi, moulds and spores without having to pre-activate it – hence, user-friendly.

No special chemical-breathing apparatus or clothing is required.

G-cide products operate optimally at room temperature.

G-CIDE PLUS HLD PRODUCT DESCRIPTION

G-cide HLD solution, is a clear/slightly opaque pleasant fragranced solution used for high level disinfection of endoscopes and any type of fibre optic instrument.

- This product contains 2,7% patented stabilised Glutaraldehyde and contains all biodegradable ingredients
- Stable for 3 years, 2 year shelf life
- Non-corrosive to metals, plastics or skin
- Effective against organic waste
- HLD does not cause microbial resistance



G-CIDE 9HCA HLD KILL SPECTRUM



A worldwide patented surfactant-modified Glutaraldehyde. The unique process of combining chemicals to make G-cide is patented and therefore a chemical reaction is required, held together by Van Der Waal forces.

IN ORDER TO KILL MICRO-ORGANISMS : PRESERVATIVES & BIOCIDES NEED TO PENETRATE THE GERM HOUSING CELL WALLS

The surfactant chosen is the wetting agent to penetrate oily films on surfaces and cell walls.

Categories of micro organisms	Viruses < 0,1µ		Bacteria > 0,2 µ			Fungi >0,5µ		Algae >1,0 µ
	Non-Envelope (HIV)	Enveloped (HEP B)	Aerobic	Un-aerobic	Spores	Fungus Plant	Spores	
QAC	✓	✗	✓	✓	✗	✓	✓	✓
Chlorines	✓	✗	✓	✓	✗	✓	✓	✓
G-cide	✓	✓	✓	✓	✓	✓	✓	✓



G-CIDE 9HCA HLD FEATURES / BENEFITS



G-cide Plus HIGH LEVEL DISINFECTANT Stabilized Glutaraldehyde and surfactant

FEATURES

Ph 5.5-7.5 Neutral

Molecular weight 486

Aldehyde in linear form

Dissolves in Water

BENEFITS

Non corrosive
Non Irritant to skin
Safe, OSHACT compliance
No activator needed

25% less volatile
No need for special respiratory mask
Mild fragrance

Stable
Temperature breakdown >50 C

Environmentally friendly
Biodegradable
Breaks down into CO₂ & H₂O
Easy to dispose of



G-CIDE 9HCA HLD FEATURES / BENEFITS



G-cide Plus HIGH LEVEL DISINFECTANT Stabilized Glutaraldehyde and surfactant

FEATURES

Contains a Surfactant

Pre-activated

SABS approved

Greater efficacy by 50%

BENEFITS

Is the wetting agent

Guarantees aldehyde penetration

Disinfection, cleaning & rinsing properties

Time saving

User friendly

Two year shelf life

28 day reuse, test strips available

Economical, no wastage

World wide Patent

Unique

Accredited for effectiveness

Accredited for endoscopes

Quicker kill rates

Sporocidal Log 6

Virucidal including envelope type

Bactericidal

Fungicidal



G-CIDE 9HCA HLD PACKAGING / SUPPORT



HIGH LEVEL DISINFECTANT
Type 1

- ✓ Bactericidal
- ✓ Virucidal
- ✓ Fungicidal
- ✓ Sporidical

READY TO USE • NON-CORROSIVE • pH NEUTRAL

FOR EXTERNAL USE ONLY

HIGH LEVEL DISINFECTANT
Type 1

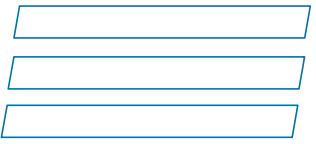
- ✓ Bactericidal
- ✓ Virucidal
- ✓ Fungicidal
- ✓ Sporidical

READY TO USE • NON-CORROSIVE • pH NEUTRAL

FOR EXTERNAL USE ONLY



50 Strips



SOLGIENE HLD CLEANING GUIDE FOR ENDOSCOPES

PROTECTIVE CLOTHING: WEAR GLOVES, EYE GOGGLES AND PLASTIC APRONS.

1 PRE-CLEANING

1. Immediately after removal of the scope from the Patient, take a secure hold of the endoscope and wipe down the insertion tube with a moist swab. This is important as excretions may harden on the outside of the scope as it cools down to room temperature.

2. Rinse the whole scope with tap water/enzymatic cleaner immediately after use.

3. Use the blue air/water channel cleaning adaptor. Flush with water then air for at least 10 seconds. Blockages: Blockages may occur if patients have internal lesions or if the patient was not prepared properly. Should a freshly formed blockage occur, use the air/water flushing valve immediately. Stubborn Blockages: Can be released using the air/water valve which has a "Laur Lock" fitting. To this valve, connect a syringe full of warm water and with hand pressure unblock the airway tube. If this fails to unblock the airway channel, contact the scope manufacturer immediately.

4. Detach removable components and attach soaking cap if needed.

2 LEAKAGE TEST

1. Attach leakage tester, visually inspect and remove once test is completed.

3 MANUAL CLEANING

1. Immerse in enzymatic solution. Aspirate the cleaning solution through the suction biopsy channels. Remove all valves and clean separately. Brush the insertion channels and surfaces until all debris removed. Use appropriate connectors to access channels.

2. If you use an ultrasonic bath, place a 1:10 solution of 3M HLD in the bath. This will disinfect any debris released during the cleaning process.

3. AER: Connect the scope to the machine per manufacturer's instructions. Check the correct chemicals are in the correct position ready to use.

Check the program: Temp: 38-40°C. Rinse Time: 3 mins at 38-40° or 5 mins at room temp. Disinfection Time: 5 mins at 38-40°C. Sterilisation Time: 30 mins at 38-40°C.

4 RINSING

1. Rinse the entire instrument in water and flush all channels with water and air.

5 HIGH LEVEL DISINFECTION

1. Immerse endoscope and all components in 3M High Level Disinfectant for the recommended time period. Flush HLD into all channels.

6 RINSING

1. Rinse entire endoscope and ensure adequate irrigation of channels with water.

7 DRYING

1. Use a soft lint free cloth on external surfaces. Remove residual fluid from channels, by drawing and blowing air through the channels using filtered air.

8 STORAGE

1. Detach removable components for better air circulation. Hang the Endoscope in a well ventilated, dust free cupboard.

NOTE: THESE POINTS SHOW THE MAJOR STEPS OF CLEANING AND DISINFECTING QUALITY ENDOSCOPES. FOR FULL INSTRUCTIONS REFER TO THE MANUAL SUPPLIED WITH THE INSTRUMENT. ANY ENDOSCOPIC DISINFECTION PROCEDURE SHOULD BE APPROVED AND ENDORSED BY THE HOSPITAL CONTROL COMMITTEE OR EQUIVALENT.

OCUPATIONAL HEALTH SAFETY: ENSURE ANY VENTILATION AND FIRE RISK PROTECTIVE EQUIPMENT REGULATIONS ADVISED BY THE DISINFECTANT MANUFACTURER ARE OBSERVED (SEE LABEL).

FOR BEST RESULTS FOLLOW LABEL AND MANUFACTURER'S INSTRUCTIONS.

Your Safety, Our Solution

