EFFERVESCENT SURFACE DISINFECTION TABLETS

KLORTAB® NaDCC

ada aqua


safety
health
antiseptic
disinfection
hygiene
cleaning
standard
antiseptic
sanitation
KLORTAB
quality
virus
NaDCC
bacteria
sanitizer
performance
hospital
hygiene
safety

Effervescent Surface Disinfection Tablets

WIPING

SPRAYING

FOGGING

KLORTAB® NaDCC

ADA AQUA EXPERIENCE

Ada Aqua's core business is the research, development, production and sales of the Klortab NaDCC tablets in Turkiye.

Our products are used in the sectors very successfully

Human Health

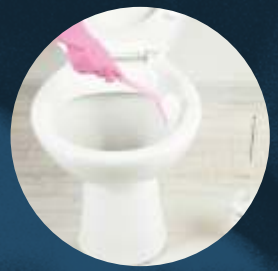
Animal / Farm Hygiene

MERS: 1.000PPM

EBOLA: 1.000PPM

COVID-19: 1.000PPM

KLORTAB® NaDCC



HUMAN HEALTH

Water disinfection

Hospital disinfection

Baby Feeding Bottle Disinfection

Food Processing and catering services disinfection

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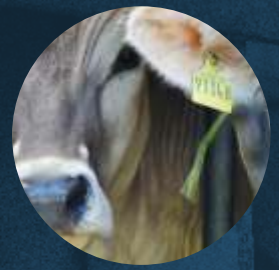


ANIMAL-FARM HYGIENE

Water disinfection

Farm Environmental Disinfection, poultries, dairies

Mastitis prevention

KLORTAB® NaDCC

Undissolved

Dissolved

Alkaline

Asidic

HOCl

$H^+ + OCl^-$

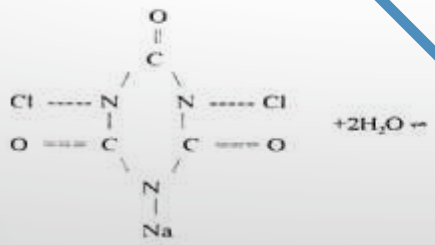
Available Chlorine

NaDCC is the active ingredient of our products.

Klortab NaDCC is the extensive spectrum biocides in effervescent form.

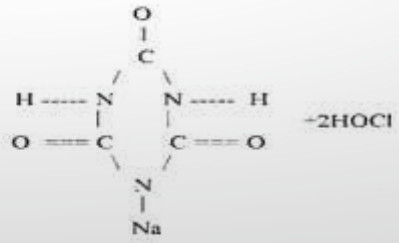
NaDCC dissolves in the water for deliver hypochlorous acid (HOCl) and monosodiumcyanurate (a non-toxic biodegradable compound). Klortab NaDCC is an oxidising compound which release chlorine to produce hypochlorous acid and hypochlorite ion ithe presence of water.

It is generally considered that the lethal action on organism is due to chlorination of cell protein or enzyme systems by nonionised hypochlorous acid, causing hydrolysis of peptidic chains of cellular membranes of pathogenic germs. Klortab NaDCC is bactericidal to most gram-positive and gram-negative bacteria, bacterial spores and viruses.



sodium dichloroisocyanurate

+2H₂O →



monosodium cyanurate

+2HOCl

hypochlorous acid

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WHY IS HOCl 100 TIMES MORE STRONG?

HOCl has the equal chemical structure to the water (H2O).

It is equal format and it is electrically inactive

These parameters enable it to pass through into the cell wall in a equal way to water

OCl- is electrically charged which makes it difficult to pass through into the cell wall.

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The mechanism is uncertain.

Destroy the protein and enzyme systems

Spread out through the cell wall.

HOW DOES HOCl KILL THE MICROORGANISMS?

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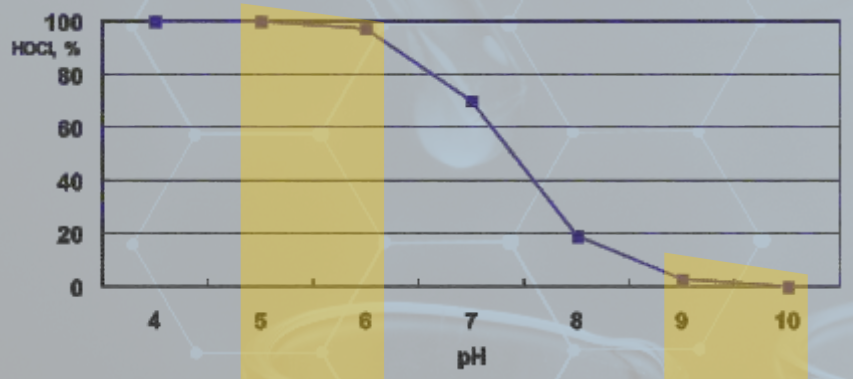

Effective pH level of Klortab

Effective are of hypochlorite solutions

DECOMPOSITION OF HOCl

The ratio of undissociated HOCl in any chlorine solution can be detected by measuring the pH.

Klortab NaDCC exposes acidic solutions with over 90% undissociated HOCl

Hypochlorites produce alkaline solutions with less than 10% undissociated HOCl.

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$$\mathbf{NaDCC + 2H_2O \rightleftharpoons NaCy + 2HOCl}$$

50% “combined” available chlorine

50% “free” available chlorine

KLORTAB® NaDCC

THE EQUALITY

"Free available" chlorine used for the organic substance and microorganisms the equality is failed.

+

Part of "combined" available chlorine is "released" to restore the 50:50 equality.

+

This situation occurs all the "combine" available chlorine is used up..

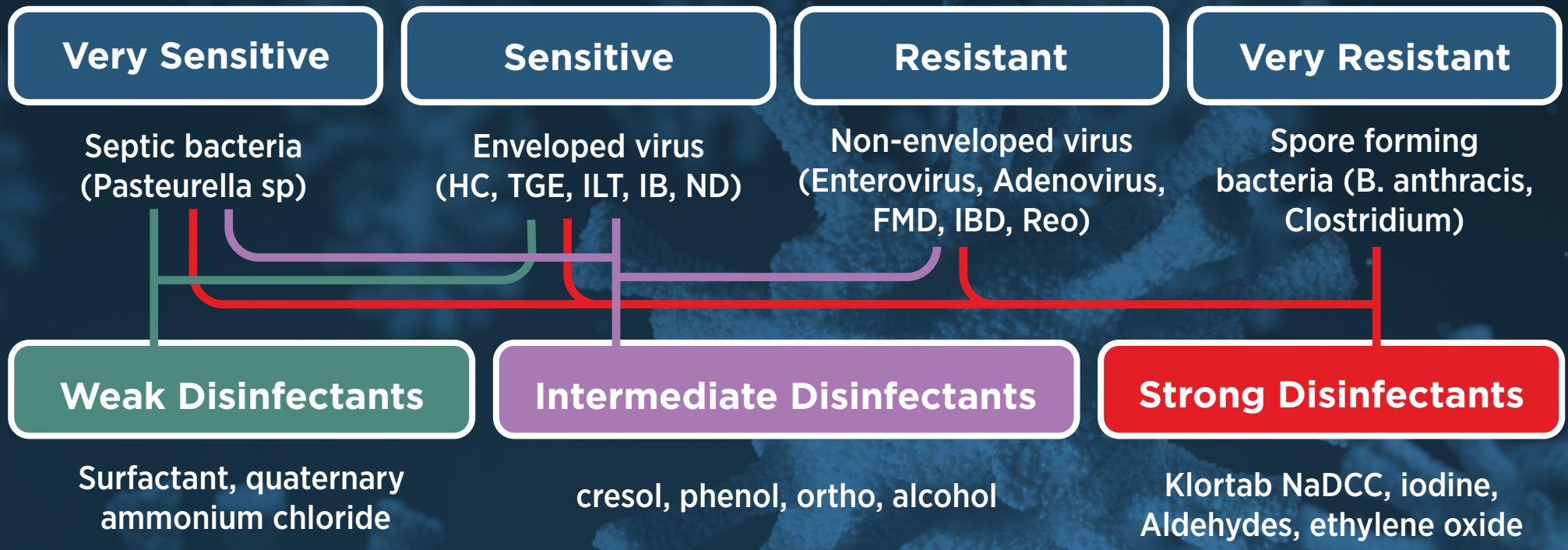
=

This is matchless to NaDCC – but does it matter?

50% COMBINED

50% FREE

KLORTAB® NaDCC



At the same solution strength (125ppm) the NaDCC had about twice the bactericidal capacity, and at half the solution strength, (62.5ppm), it still retained a similar capacity.

KLORTAB® NaDCC

IT MATTERS NUMEROUS...

NaDCC has greater biocidal activity than hypochlorite even if at the same pH level.

This is fully because of 50:50 mechanism, which is not covered by hypochlorites.

The studies prove that NaDCC has up to
4 times destroying strength of hypochlorites

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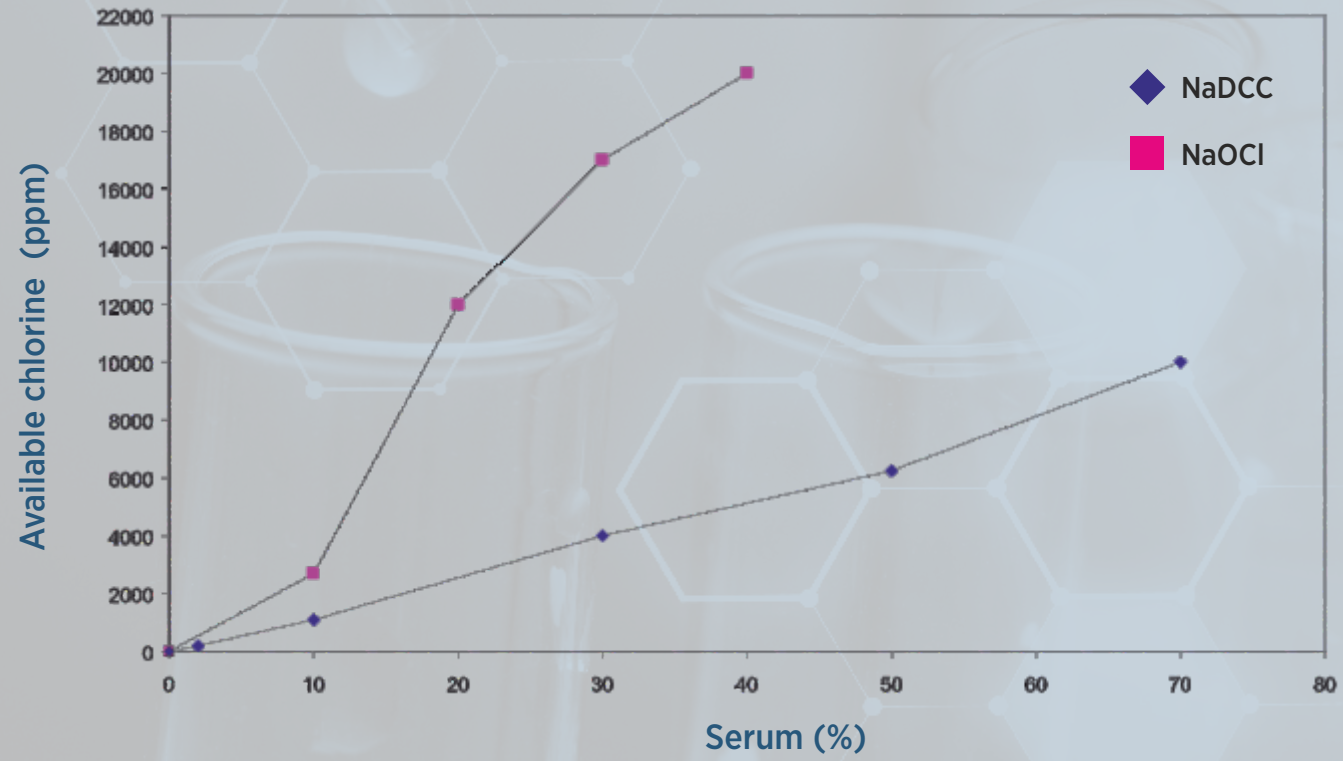
Comparison of the levels of available chlorine demanded to obtain a 99,999% kill of Pseudomonas aeruginosa in 2 minutes at 25°C' in the presence of horse serum.

As the level of organic contamination increases, the solution strength required from hypochlorite to achieve the same killing power as NaDCC increases to over 4 times.



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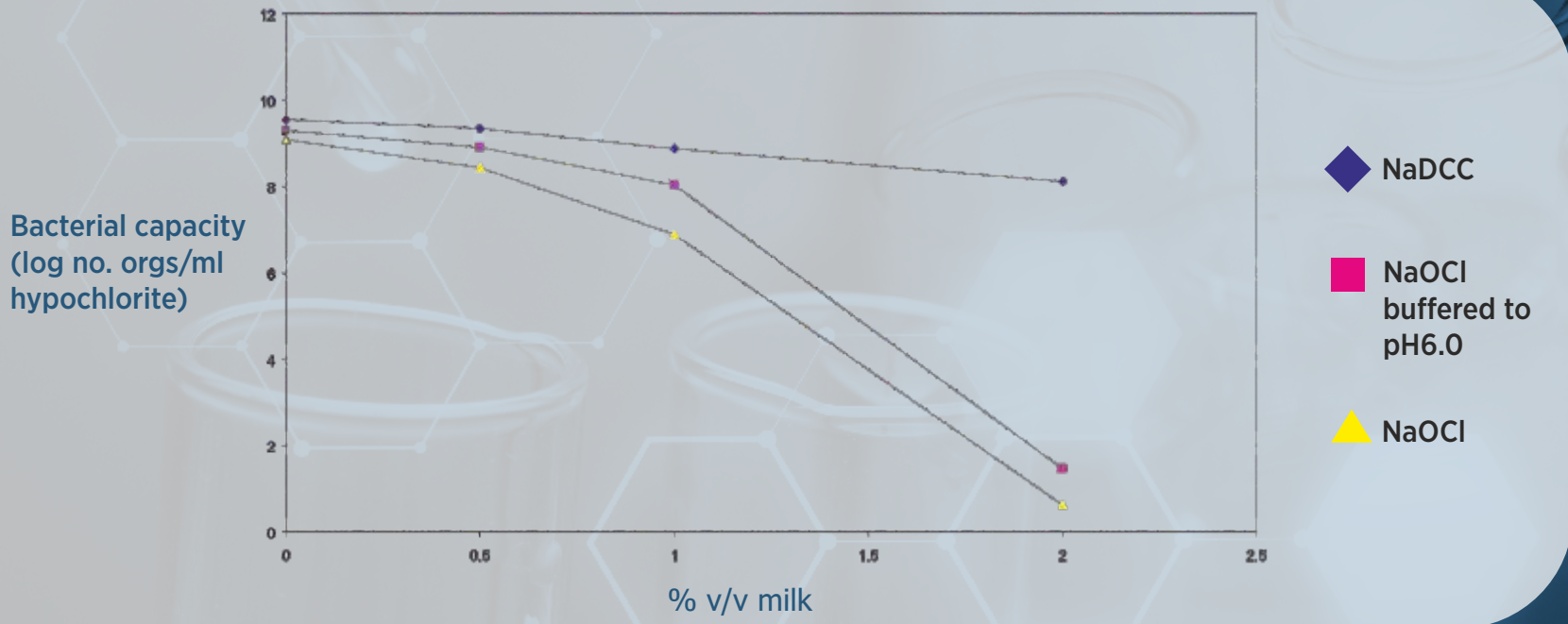
BIOCIDAL STUDIES

Effects of milk on the bacterial capacity of NaDCC and NaOCl solutions containing 125ppm available chlorine against E. coli.



In the above study 2 % milk rendered NaOCl virtually inactive, whereas NaDCC at the same solution strength (and pH) still had a capacity to kill over 108 organisms per ml.

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RESULT

NaDCC, has uniqe features that make it a superior chlorine donor.

Good effervescent - acidic solutions

50:50 equality

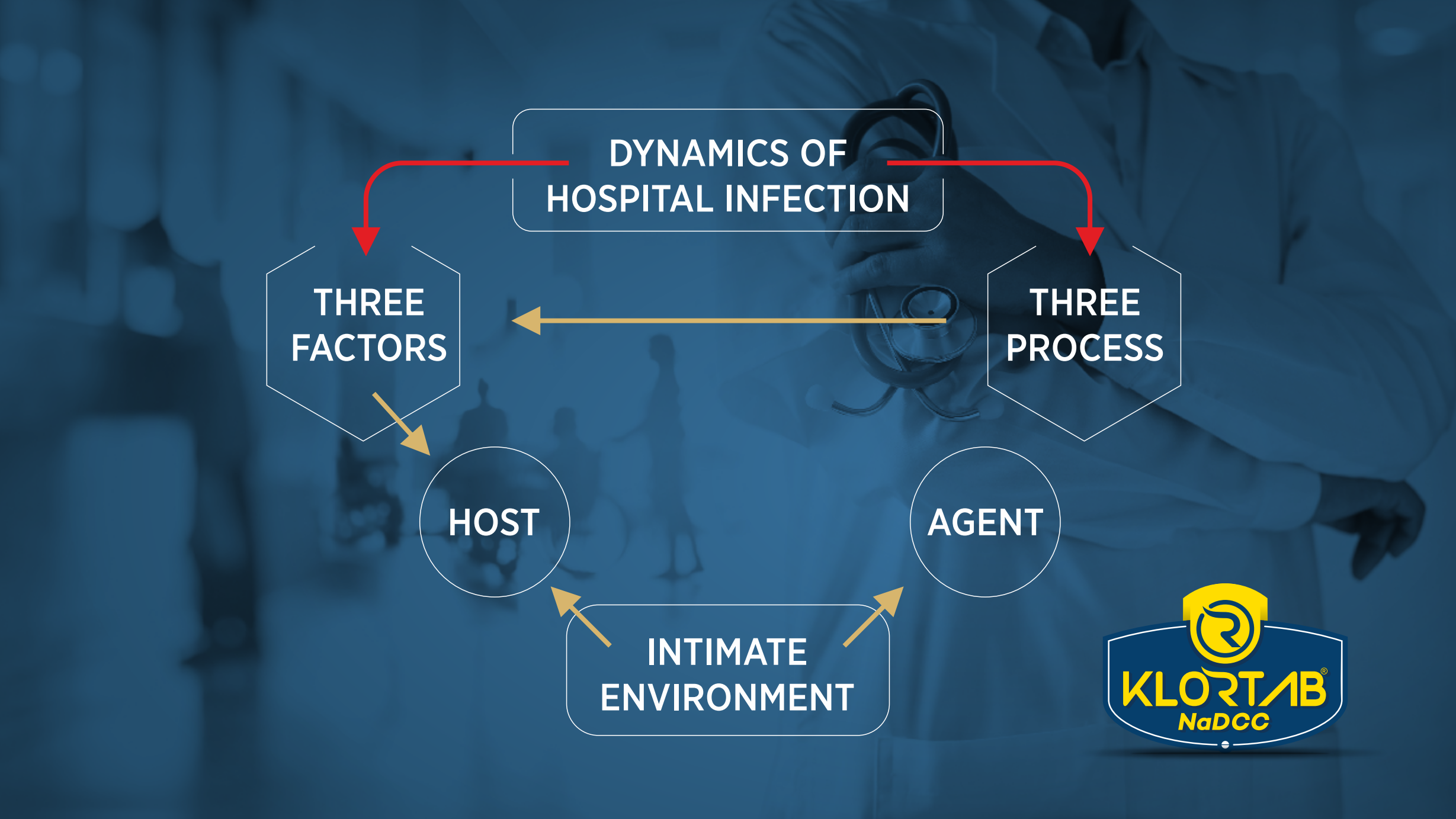
Superior performance

Long Lasting

High effectiveness

Convenient, varied application

KLORTAB® NaDCC


DYNAMICS OF
HOSPITAL INFECTION
THREE
FACTORS
THREE
PROCESS
HOST
AGENT
INTIMATE
ENVIRONMENT
KLORTAB®
NaDCC

USA: UP TO 2 MILLION HEALTHCARE-ASSOCIATED INFECTIONS PER YEAR, OF WHICH 80.000 ARE LETHAL OR MAY CONTRIBUTE TO DEATH.

EUROPE: 5 MILLION HOSPITAL ASSOCIATED INFECTIONS PER YEAR, OF WHICH 50.000 (1%) ARE LETHAL OR CONTRIBUTE TO DEATH İN 135.000 CASES (2.7%).

JAPAN: RESISTANCE ISOLATION RATE OF MRSA (METHICILLIN-RESISTANT STAPHYLOCCUS AUREUS): 40 – 80%

INDIA: AN ESTIMATED 10 TO 30 % OF PATIENTS ADMITTED TO HOSPITALS AND NURSING HOME ACQUIRE A NOSOCOMIAL INFECTION.

UP TO 70% OF ORGANISMS CAUSING HOSPITAL ASSOCIATED INFECTOINS ARE RESISTANT TO AT LEAST ONE ANTIBIOTIC.

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Is your hospital's disinfection method putting you at risk?

According to a recent study published in the American Journal of Infection Control, **laundered cloth and microfiber towels used for cleaning** in hospitals contain live bacteria that could **put patients at risk** of contracting a **Healthcare Associated Infection**

93% of towels sampled contained live **bacteria**[1]

Including:
- E. coli
- Coliforms linked to feces
- Pneumonia associated bacteria

67% of soak buckets tested harbored **bacteria**[1]

A companion study found

Cotton towels **reduced disinfectant strength** by up to **85%**[4]

1 in 20 patients contract **HAIs** each year[2]

That's serious because

HAIs are one of the **top ten** leading causes of **death** in the U.S.[3]

It's time to rethink laundered towel disinfection.

Sources:
1. "Microbial contamination of hospital reusable cleaning towels," Charles Gerba, Ph.D. et al, American Journal of Infection Control, March, 2013, www.ajicjournal.org
2. "HAIs: The Burden," Centers for Disease Control and Prevention, www.cdc.gov
3. "Healthcare-Associated Infections," Agency for Healthcare Research and Quality, www.ahrq.gov
4. "Decreased activity of commercially available disinfectants containing quaternary ammonium compounds when exposed to cotton towels," Charles Gerba, Ph.D. et al, American Journal of Infection Control, April, 2013, www.ajicjournal.org

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CONFIRMATION OF EFFECTIVENESS IN THE HOSPITAL ENVIRONMENT

BACTERIA **MYCOBACTERIA** **FUNGUS** **SPORES** **VIRUS**

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DISINFECTION IS IMPORTANT AT THREE LEVELS

HIGH

MEDIUM

LOW

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USING AREA

MICROBICIDAL ACTIVITY

	Sporicidal	Tuberculocidal	Virucidal	Fungicidal	Bacteriocidal
HIGH LEVEL	*	*	*	*	*
MEDIUM LEVEL	–	*	*	*	*
LOW LEVEL	–	–	–	–	*

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FOOD PREPERATION

New EC directives demand conformation with HACCP systems

+

HACCP = Hazard Analysis Critical Control Points

=

Quality Assurance system for food safety

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VALIDATION OF EFFECTIVENESS

Bacteria

Aerobacter aerogenes
Campylobacter jejuni
Enterococcus faecium
E. Coli
Klebsiella pneumoniae
Listeria monocytogenes
Proteus vulgaris
Pseudomonas aeruginosa
Salmonella faecalis
Salmonella typhi
Staphyloccus aureus
Sptreptococcus GpD

Virus

Adenovirüs
Polio
HBC
Herpes simplex

Fungi

Aspergillus niger,
Candida albicans
Scopulariopsis
brevicaulis

Spores

Bacillus subtilis
Clostridium perfringene
Clostridium tetani

Mycobacteria

Mycobacterium
smegmatis

ASK FOR LITERATURE STUDIES

KLORTAB® NaDCC

3,4 GRAM

- Klortab NaDCC (3,4 gram x 200 tablets) Disinfection Tablets have 3.4 gram nominal weight and contains 65 % active available chlorine.
- Klortab NaDCC has an excellent effect against bacteria, virus, mycobacteria, fungi and spores.
- Commercial presentation: 3.4 gram x 200 tablets/tub
- The Klortab NaDCC tablets are produced very precision and simple process by the supporting of Hacettepe University and Ministry of Science, Industry and Technology in the framework of Santez Project at the production facility of ADA AQUA KİMYA SANAYİ VE TİCARET A.Ş.
  The Klortab NaDCC is a broad-spectrum biocide produced as effervescent tablet and is a wonderful formulation creating a well known and real strong disinfection solution.

KLORTAB®
NaDCC

3,4 GRAM

3.4 GRAM X 200 TABLETS

1 TABLET TO 1 LITER WATER 1.000PPM

USING AREAS

General Disinfection
Non-sensitive Surfaces:
1 tablet to 5 liter water
(The necessary Klortab NaDCC Solution Strength: 200ppm)

Disinfection of Sensitive Surfaces:
1 tablet to 1 liter water
(The necessary Klortab NaDCC Solution Strength: 1.000ppm)

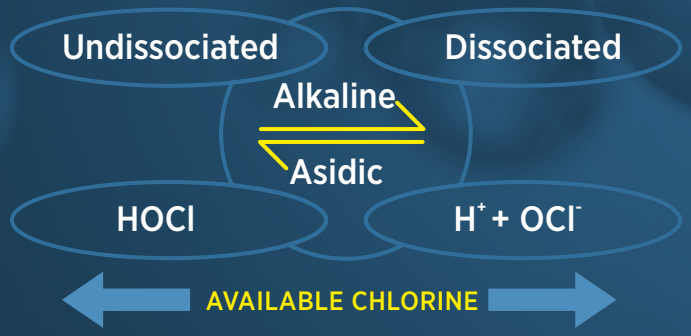
HIV, HBV and Similar:
Contaminated surface or equipment
5 tablets to 1 liter water
(The necessary Klortab NaDCC Solution Strength 5.000ppm)

Body fluid spillage (not urine):
10 tablets to 1 liter water
(The necessary Klortab NaDCC Solution Strength : 10.000ppm)

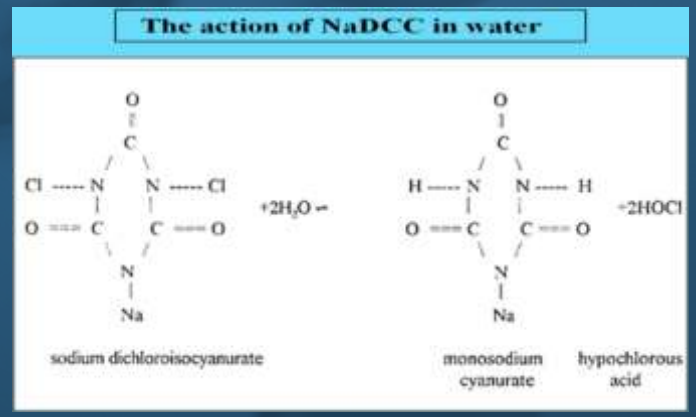
KLORTAB® NaDCC

5 GRAM

- Klortab® NaDCC (5GR X 100 TABLETS) Effervescent Disinfectant Tablets have 5 gram nominal weight, contains 2.5 gram active ingredient (NaDCC) and 1.5 gram available chlorine.
- Hypochlorites produce alkaline solutions with less than 10% undissociated HOCl.
- Commercial Presentation: 100 tablets/tubs
- Klortab NaDCC exposes acidic solutions with over 90% undissociated HOCl.
- There is no necessity to measuring, pouring and mixing of Klortab NaDCC Tablets. Just add the required Klortab NaDCC tablet into the water according to type of area will be disinfected. Klortab NaDCC tablets dissolved in the water effervescently and constitute the real chlorine solution. The tablets are leakproof, do not splash around and not spread.
- HOCl has the equal chemical structure to the water (H2O). It is equal format and it is electrically inactive. These parameters enable it to pass through into the cell wall in a equal way to water. OCl- is electrically charged which makes it difficult to pass through into the cell wall. The ratio of undissociated HOCl in any chlorine solution can be detected by measuring the pH.
- 100 times powerful HOCl



HOCl dissociates in alkaline conditions into the hydrogen ion (H^+) and hypochlorite ion (OCl^-)



KLORTAB® NaDCC

5 GRAM

5 GRAM X 100 TABLETS

1 TABLET TO 1.5 LITER WATER 1.000PPM

USING AREAS

General Disinfection:

Disinfection of Non-sensitive Areas:
1 tablet to 7,5 liter water
(The necessary Klortab NaDCC Solution Strength : 200ppm)

Disinfection of Sensitive Areas:
1 tablet to 1,5 liter water
(The necessary Klortab NaDCC Solution Strength : 1.000ppm)

HIV, HBV and Similar:
Contaminated surface or equipment
5 tablets to 1,5 liter water
(The necessary Klortab NaDCC Solution Strength 5.000ppm)

Body fluid spillage (not urine):
10 tablets to 1,5 liter water
(The necessary Klortab NaDCC Solution Strength : 10.000ppm)

KLORTAB® NaDCC

17,4 GRAM

- Klortab NaDCC (17,4 GRAM x 60 TABLETS) Disinfectant Tablets are the armada of our products. They are 17.4 gram nominal weight and has 8.68 gram NaDCC and 65 % active available chlorine.

- Commercial presentation 60 tablets /tub.

- Klortab NaDCC Disinfection Tablets contain NaDCC and using the places have infection risk and the places maximum hygiene necessity as well as operation rooms, intensive care, dialysis units, laboratories, toilets, closet, urinals, showers, baths, dressing rooms and especially all the departments of the hospitals and also in kitchens and food preparation areas, washrooms, bedrooms, reception areas, Sluice rooms and lots more. Klortab NaDCC Disinfection Tablets having very easy using and applications. Therefore the infection commitees can easily control the users in the hospitals.

KLORTAB®
NaDCC

17,4 GRAM

17.4 GRAM X 60 TABLETS
1 TABLET TO 1 LITER WATER 5.000PPM

USING AREAS

General Disinfection:

Disinfection of Non-sensitive Areas:
1 tablet to 25 litre water
(The necessary Klortab NaDCC Solution Strength : 200ppm)

Disinfection of Sensitive Areas:
1 tablet to 5 liter water
(The necessary Klortab NaDCC Solution Strength : 1.000ppm)

HIV, HBV and Similar:
Contaminated surface or equipment
1 tablet to 1 liter water
(The necessary Klortab NaDCC Solution Strength 5.000ppm)

Body fluid spillage (not urine):
2 tablets to 1 liter water
(The necessary Klortab NaDCC Solution Strength : 10.000ppm)

KLORTAB® NaDCC

KLORTAB®
NaDCC

ADA AQUA KİMYA SANAYİ VE TİCARET A.Ş.
Çamlıca Mahallesi 147. Cadde Dimas İşyerleri Sitesi No:4-C Yenimahalle Ankara
PHONE: 0312 387 00 47 **FAX:** 0312 387 00 43 **GSM:** 538 398 04 94 **E.MAIL:** info@adaaqua.com.tr
www.adaaqua.com.tr