

PRODUCT INFORMATION

Product

Safe Guard 45H25

Description

Hypochlorous acid sanitiser

Benefits

- ☑ Excellent efficacy against all microbes.
- ☑ Mimics human immune system.
- ☑ Can be safely applied directly to skin without dilution.
- ☑ Fast rate of kill and no resistance.
- ☑ Low hazard classification – no protective gear required.
- ☑ Non-toxic.
- ☑ Long shelf-life, even at elevated temperatures.
- ☑ Many times more effective than commonly used solutions for killing bacteria (including spore formers), viruses, fungi, mould and mildew.

Specification

Appearance	:	Clear, colourless liquid with faint, characteristic odour
Specific Gravity	:	1.00 – 1.01
pH as supplied	:	4.5 – 5.0
Flash Point	:	Non-flammable
Culligan Hazard Category	:	A – Non-Hazardous
U.N. No.	:	Not Classified as Hazardous for Air, Land or Sea Transport.
IMDG Class	:	Not Classified as Hazardous for Sea Transport.

Technology

CULLIGAN SAFE GUARD 45H25 is a high purity aqueous solution of hypochlorous acid. If you're like most people, you've never heard of hypochlorous acid, despite the fact that it's in your body - as in right now - fighting the good fight. And by that we mean the fight against infection, because it's the substance your white blood cells produce to keep you healthy. Because of this, hypochlorous acid uses are increasing every day.

The management system of Culligan Middle East FZE has been assessed and certified as meeting the requirements of ISO9001:2015, ISO14001:2015 and ISO 45001:2018

The good manufacturing practices of Culligan Middle East FZE have been assessed and certified as meeting the requirements of ISO 22716:2007 and ISO 9001:2015 for Good Manufacturing Practice (GMP) by ACM LLC and Allegiance Certification Services LLC.

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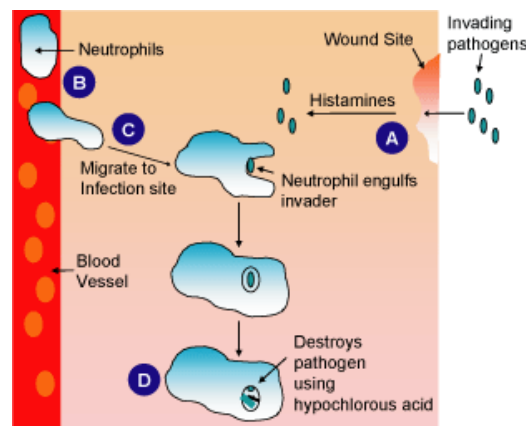
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You might be surprised to learn that your immune system’s fighter, hypochlorous acid, is actually based on chlorine. It’s so gentle that hypochlorous acid is FDA approved for use in wound care and eye care products and is also common in veterinary care. It’s also used in the UK in agriculture, as a biocide for horses and in dental care. It can kill E. coli and salmonella on contact with no harmful residues, which makes it ideal for food applications. It’s FDA approved for use in produce preservation and USDA approved for organic crop production. There has been extensive research on the gentleness and efficacy of hypochlorous acid. It’s so effective that hospitals use it as a disinfectant in both the US and Japan.

We have harnessed the power of hypochlorous acid with our novel production process to produce a safe but powerful multi-purpose cleaner and deodorizer that’s just as effective as conventional cleaners but with no harmful chemicals, residues or fumes. What’s more it allows the solution to be stable for much longer than previously available. We do not add unnecessary ingredients to stabilize or preserve our product stability.

Hypochlorous acid, the active ingredient in **CULLIGAN SAFE GUARD 45H25** is produced naturally by the body to combat infection. White blood cells release this natural oxidant to fight invading pathogens. The hypochlorous acid produced by the human body’s immune system:

- ✓ Reacts readily with a variety of microbial sub-cellular compounds
- ✓ Interferes with their metabolic processes
- ✓ Kills individual bacterium exposed within milliseconds



- A.** When a wound breaks human skin, it creates a gateway for harmful pathogens to invade human cells.
- B.** Neutrophils, which are a type of white blood cell, live in human blood vessels.
- C.** When pathogens invade a human cell, neutrophils travel to the infection site to destroy the invading pathogen. The first step in this process is engulfing the pathogen.
- D.** Once the neutrophil has completely surrounded the pathogen, it produces an oxidant, hypochlorous acid. Hypochlorous acid is a biocide, meaning it kills organic material. Once produced by the neutrophil, it kills the bacteria almost instantly.

CULLIGAN SAFE GUARD 45H25 mimics the production by the human immune system of the body's natural anti-microbial. Our **CULLIGAN SAFE GUARD 45H25** production process creates a high purity product that is stable for many months – even at temperatures up to 50 °C.

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Effectiveness

The hypochlorous acid active ingredient in CULLIGAN SAFE GUARD 45H25 is effective against:

Bacteria

Acinetobacter baumannii
 Escherichia coli (O157)
 Enterococcus species (VRE)
 Helicobacter pylori
 Listeria
 Legionella pneumophila
 Magnaporthe grisea (rice blight)
 Mycobacterium avium-intracellulare
 Mycobacterium bovis (TB)
 Mycobacterium chelonae
 Mycobacterium smegmatis
 Mycobacterium terrae
 Mycobacterium tuberculosis (TB)
 Mycobacterium xenopi
 Pseudomonas aeruginosa
 Staphylococcus aureus (MRSA)
 Samonella cholerasuis

Bacterial Endospores

Bacillus cereus
 Bacillus subtilis
 Clostridium difficile
 Clostridium sporogenes

Viruses

Adenovirus type 4
 Animal and human influenza (including H5N1 and H1N1)
 Bacteriophage MS2
 Feline calicivirus
 Hepatitis A & B (HAV)
 Herpes virus type 1
 HIV-1
 Human Norovirus (Norwalk)
 MS2 virus
 Murine Norovirus
 Orthopoxvirus
 Poliovirus type 1
 Poliovirus type 2

Fungi

Aspergillus niger
 Candida albicans
 Trichophyton mentagrophytes

Mould & Mildew

Botrytis (grapy mold)
 Powdery mildew

Hypochlorous acid has been subjected to extensive testing and has achieved impressive pass results:

- **BS EN 1040: 2005** – Quantitative suspension test evaluating bactericidal activity (400, 600ppm)
- **BS EN 1275: 1997** – Fungicidal/ yeasticidal activity (400, 600ppm)
- **BS EN 13727: 2003** - Bactericidal activity:
 - a) Pseudomonas aeruginosa NCTC 6749 (400, 600ppm)
 - b) Staphylococcus aureus NCTC 10788 (400, 600ppm)
 - c) Enterococcus hirae NCTC 12367 (400,600ppm)
- **BS EN 1276: 1997** - Chemical disinfection and antiseptics – quantitative suspension test for evaluation of bactericidal activity of chemical disinfectants and antiseptic used in food, industrial, domestic and institutional areas –Phase Two, Step One (100, 200, 400, 600ppm)

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- **BS EN 13704: 2002** - Chemical disinfectants – Quantitative suspension test for the evaluation of sporicidal activity of chemical disinfectants used in food, industrial, domestic and institutional areas – Phase Two, Step One. C.Diff (600ppm)
- **BS EN 14348:** Tuberculocidal efficacy test, Phase two, step one, clean conditions against Mycobacterium terrae. (1,000)
- **BS EN 1650: 2008** - Quantitative suspension test for the evaluation of fungicidal activity (100ppm)

Applications

There are many applications for **CULLIGAN SAFE GUARD 45H25** are almost limitless – here are just a few:

- Infection Control
- Surface Sanitisation
- Laundry

Since **SAFE GUARD 45H25** is non-irritant and non-persistent it is ideal for misting, sanitising tunnels and cold-fogging.

Use Instructions

Surface disinfection

Apply to a **CLEAN** cloth which is then used to clean and disinfect the surface and **ALLOW TO DRY**

No need to rinse.

Do not spray directly onto the surface - always spray on cloth before wiping.

Skin sanitisation

Place enough product in your palm to thoroughly cover your hands.

Rub your hands together until dry.

Misting, Cold Fogging and Sanitising Tunnels

This product is non-irritant and is intended for use without dilution. Follow equipment manufacturer’s instructions.

Regulatory Approvals

SAFE GUARD 45H25 is certified as a B2B biocide by Dubai Municipality Public Health & Safety Department reference number CPRE-2020012603.

SAFE GUARD 45H25 has been tested and passed by Dubai Central Laboratory against BS EN 1276: 1997 parts 1, 2 and 3 - Chemical disinfection and antiseptics.

SAFE GUARD 45H25 has been tested and passed by Dubai Central Laboratory against BS EN 1650 - Fungicidal and Yeastocidal Activity of Disinfectants and Antiseptics.

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Packaging

SAFE GUARD 45H25 is available in 500ml spray bottles, 5 Kg and 20 Kg plastic drums.

Safety

This category includes products which are not classified as hazardous.

Products in this category are predominantly water-based and have a neutral pH (in the range of 4.5 - 8.0).

Although materials in this category are classified as non-hazardous, as with all chemicals they should be handled with care. Eye contact should be avoided, and gloves should be worn by persons with sensitive skin who are repeatedly handling the concentrated product.

GENERAL SAFETY INSTRUCTIONS FOR ALL CHEMICALS

Ensure that the operator is fully informed and familiar with the use of the product.

Avoid ingestion of the product by mouth and nose. To eliminate the possibility of accidental ingestion, operator should never eat, drink or smoke when using chemicals. In addition, protective clothing should be removed, and the hands washed prior to eating, drinking or smoking.

Store in the original containers and ensure that the cap is always secure.

Do not store in temperatures above 40°C or below 0°C for extended periods.

Do not stack more than two high for prolonged periods.

Avoid storing near direct heat and in direct sunlight.

Store out of the reach of children and away from thoroughfares.

Please refer to the Material Safety Data Sheet for more detailed information.

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