



HOSPITAL GRADE DISINFECTANT

Hydro-E® is the leader in a new class of disinfectant and the most advanced around the world.

Hydro-E® is safe for humans and the environment because it contains no alcohol and is completely natural and non-toxic. HOCl begins killing bacteria and viruses within seconds of contact and successfully eliminates COVID-19 in 30 seconds, supporting aged care workers with standard infection control procedures.

- ✓ Excellent for aerosol or surface application.
- ✓ 100% Natural & Non-Toxic

EFFECTIVELY KILLS 99.99% OF BACTERIA*.
KILLS COVID-19 IN 30 SECONDS.

100% NATURAL - ZERO ALCOHOL - NON TOXIC

ALSO GREAT FOR

- > Medical & Dental Surgeries
- > Podiatry & Physiotherapy Clinics
- > Hospitals & Clinics
- > Gyms & Fitness Centres
- > Home, Office, or Factory
- > Veterinary Practices

DISINFECTANTS

APPLICATORS



HYDRO-E 5L

HYDRO-E 500ML

500ML CONTINUOUS SPRAY APPLICATOR

500ML MULTI-MODE SPRAY APPLICATOR

380ML K5 SPRAY APPLICATOR

MHE05L

MHE500F

MHE500CP

MHE500E

MHEK5



Made in Australia Hydro-E ARTG: 335971

Hydro-E 5L - MHE05L
Hydro-E 500ml - MHE500F
500ML Continuous Spray Applicator - MHE500CP
500ML Multi-Mode Spray Applicator - MHE500E
380ML K5 Rechargeable Spray Applicator - MHEK5

*Tested against P. aeruginosa, E. coli, S. aureus, Salmonella, SARS-CoV-2 (Covid-19)



Marketed by:
Majac Medical Products Pty. Ltd.
Tel: 1300 138 578 | Int: +61 7 3265 6355
Email: sales@majacmedical.com.au
www.majacmedical.com.au

Also Available from:

The Human Race is Searching for Help. Science Has Obligated

As citizens striving to achieve a finality to this pandemic, we should all be alerted to the safest way to minimize these transmissions.

This will only be achieved with the correct education about the COVID-19 virus characteristics, and reliable methods of removing or killing the virus prior to it entering our bodies.

“Prevention is as good as a cure”.

What about COVID-19?

COVID-19 is an enveloped, positive-sense, single-stranded RNA virus. The COVID-19 spike, glycoprotein, firmly binds to the angiotensin converting enzyme 2 (ACE) receptor, which allows entry into the host cell. These spike proteins allow the virus to attach to cells and cause disease.

Transmission occurs through aerosol or touch for spreading of the virus.

A common pathway of spreading this virus is *through respiratory aerosols from an infected person*. During speech, humans emit thousands of oral fluid droplets per second that can remain airborne for 8 to 14 minutes. COVID-19 is detectable for up to 3 hours in surface aerosols, for up to 4 hours on copper, for up to 24 hours on cardboard and for up to 2 to 3 days on plastic and stainless steel. *There is a need to disinfect all surfaces potentially exposed to COVID-19 to prevent transmission.*

IMPORTANCE OF AEROSOL SIZE

Aerosols are defined as particles less than 50 μm in diameter.

Particles are classified based on size: Coarse particles measure 2.5 to 10 μm ; fine particles, 0.1 μm to less than 2.5 μm ; and ultrafine particles, less than 0.1 μm .



DISINFECTANTS

If a particle is smaller than 10 μm , it can enter the respiratory system.

If smaller than 2.5 μm , it can enter the alveoli.

Our body has some natural defence but when the size is from 0.3 to 5 μm (Micron) then the micro-organisms may traverse the naso-pharyngeal airway on each inspiratory effort then via the bronchi to the lungs and alveoli.

HYPOCHLOROUS ACID - HOCl: A REVIEW

Hypochlorous Acid: A Review. Michael S. Block, DMD and Brian G. Rowan, DMD, MD. © 2020 American Association of Oral and Maxillofacial Surgeons J Oral Maxillofac Surg 78:1461-1466, 2020 Elsevier: COVID-19 Resource Centre.

HYPOCHLOROUS ACID (HOCl) V OTHER DISINFECTANTS

Stepping away from the Ethanol, QUAT (Quaternary Ammonium Compound),

Hydrogen Peroxide (H₂O₂) and Chlorine (Sodium Hypochlorite) based disinfectants.

HOCl is 100% natural, non-toxic and formulated from Hypochlorous Acid (HOCl) which is also created within our own human immune system. White blood cells (Neutrophils) generate this acid as part of their arsenal to respond and attack bacteria and viruses within our bodies – known as phagocytosis.

On contact with micro-organisms, a disinfectant agent changes the protective protein coat, which loses its structure and aggregates, forming clumps of proteins with other viruses. Some proteins maybe hydrophobic, some hydrophilic.

HYPOCHLOROUS ACID (HOCl)

HOCl is a powerful oxidizing agent. In aqueous solution, it dissociates into H⁺ and OCl⁻, denaturing and aggregating proteins.

HOCl also destroys viruses by chlorination by forming chloramines and nitrogen centred radicals, resulting in single - as well as double-stranded DNA breaks, rendering the nucleic acid useless and the virus harmless.

A study looked at disinfecting outpatient surgi-centres using HOCl. After cleaning, the rooms in the HOCl cleaning and disinfection study had significantly lower bacterial counts than the rooms that underwent standard cleaning and disinfection.

When HOCl solutions were sprayed directly onto sheets containing the virus for 10 seconds, the solutions of 100 and 200 ppm inactivated AIV.