CHEMGENE HOCL2000 has been developed to meet the demands of clinical departments seeking fast sporicidal disinfection without compromising materials compatibility. Hypochlorous acid has been used for many years within the food industry and more recently as a stable endoscope sterilising fluid for Automated Endoscope Washer Disinfectors.

This new and patented pH near neutral solution produces instantaneous levels of Hypochlorous acid from a specially designed trigger spray chamber, via a non-hazardous twin pack solution that is fully compliant according to CLP and Transport regulations.
CHEMGENE HOCI2000 has been designed to meet the demands of swift hospital disinfection without the concerns of materials compatibility experienced by certain oxidising chemicals.

Based on a unique patented formulation that generates safe levels of Hypochlorous Acid by mixing a base and activator in-situ.

Hypochlorous acid (HOCl) is produced by the human body’s immune cells to fight infections. It is effective against a broad range of microorganisms. It is non-toxic, non-irritant and non-corrosive at proper usage concentrations. (1)

CHEMGENE HOCI2000 is independently tested as Sporicidal, Mycobactericidal, Virucidal, Fungicidal and Bactericidal according to recognised EN test protocols.

CHEMGENE HOCI2000 is sporicidal (Clostridium difficile) in 1 minute in clean and dirty conditions according to EN13704 (ref. HIRL, Dudley Road) and also effective against TB in 1 minute in clean and dirty conditions (ref. HIRL)

CHEMGENE HOCI2000 has been tested by University of Cambridge Biotechnology Department to be effective at denaturing / precipitating DNA / RNA in 5 minutes.

CHEMGENE HOCI2000 is packaged as a trigger spray that keeps its two actives separate. As such, there are no special disposal or transport considerations

CHEMGENE HOCI2000 is manufactured in the UK according to ISO9001 and EN13485 and is a British product concept with International patents granted and pending.
SPORICIDAL ACTIVITY

*Clostridium difficile*  
HIRL 250ppm  Clean  EN13704  1 min  > LOG 5
*Clostridium difficile*  
HIRL 2000ppm  Dirty  EN13704  1 min  > LOG 6

...... demonstrated sporidical activity at 20 °C under dirty conditions (0.3 % w/v albumin and 0.3 % v/v sheep erythrocytes) within 1 minute, obtaining a >6 log_{10} reduction.

MYCOBACTERICIDAL ACTIVITY

*Mycobacterium terrae*  
HIRL 2000ppm  Dirty  EN14348  1 min  > LOG 7

When tested in accordance with the methodology described in EN 14348, HOCL2000 demonstrated tuberculocidical activity under dirty (0.3 % w/v albumin + 0.3 % v/v erythrocytes) conditions. To claim tuberculocidical activity, a ≥4 log_{10} (99.99%) reduction is required within the obligatory contact time of 60 minutes. This was achieved within 1 minute under dirty conditions.

BACTERICIDAL ACTIVITY

*Escherichia coli*  
HIRL 250ppm  Clean  EN13727  1 min  > LOG 5
*Escherichia coli*  
HIRL 250ppm  Dirty  EN13727  1 min  > LOG 5
*Staphylococcus aureus*  
HIRL 250ppm  Clean  EN13727  1 min  > LOG 5
*Pseudomonas aeruginosa*  
HIRL 250ppm  Clean  EN13727  1 min  > LOG 5

...... A >5 Log_{10} (99.999 %) reduction was achieved with all test organisms within 1 minute under clean conditions.

*Full test data available upon request*
HOCL2000 has been tested under the following EN test protocols: -

<table>
<thead>
<tr>
<th>EN13704</th>
<th>Chemical disinfectants. Quantitative suspension test for the evaluation of sporicidal activity of chemical disinfectants used in food, industrial, domestic and institutional areas. Test method and requirements (phase 2, step 1)</th>
<th>Bacillus subtilis, Clostridium difficile</th>
</tr>
</thead>
<tbody>
<tr>
<td>EN14348</td>
<td>Chemical disinfectants and antiseptics. Quantitative suspension test for the evaluation of mycobactericidal activity of chemical disinfectants in the medical area including instrument disinfectants. Test methods and requirements (phase 2, step 1)</td>
<td>Mycobacterium terrae</td>
</tr>
<tr>
<td>EN14476</td>
<td>Chemical disinfectants and antiseptics. Virucidal quantitative suspension test for chemical disinfectants and antiseptics used in human medicine. Test method and requirements (phase 2, step 1)</td>
<td>Poliovirus, Adenovirus, Norovirus, HIV</td>
</tr>
<tr>
<td>EN1650</td>
<td>Chemical disinfectants and antiseptics. Quantitative suspension test for the evaluation of fungicidal or yeasticidal activity of chemical disinfectants and antiseptics used in food, industrial, domestic and institutional areas. Test method and requirements (phase 2, step 1)</td>
<td>Aspergillus niger, Candida albicans</td>
</tr>
<tr>
<td>EN13727</td>
<td>Chemical disinfectants and antiseptics. Quantitative suspension test for the evaluation of bactericidal activity of chemical disinfectants for instruments used in the medical area. Test method and requirements (Phase 2/Step 1)</td>
<td>Enterococcus hirae, Staphylococcus aureus, Pseudomonass aeruginosa</td>
</tr>
<tr>
<td>EN13697</td>
<td>Chemical disinfectants and antiseptics. Quantitative non-orous surface test for the evaluation of</td>
<td>Escherichia coli</td>
</tr>
</tbody>
</table>

Hypochlorous Acid (HOCL) has been widely tested for medical, environmental, food and other related markets against the following organisms: -

Bacillus subtilis var niger, Desulfovibrio indenosis, Clostridium difficile, Helicobacter pylori, Vancomycin resistant Enterococcus species, Candida albicans, Various Mycobacterium species (avium, chelonei, smegmatis, tuberculosis), Pseudomonas aeruginosa, E.coli 0157, Enterococcus faecalis, Polio virus type 2 Sabin strain, Duck hepatitis B virus, HIV-1 strain3036, MSSA, MRSA, VRSA, Avian Flu, Micrococcus luteus, Corynebacterium amylolatum, Haemophilus influenza, Proteus mirabilis, Klebsiella pneumoniae, Salmonella paratyphi, Vibrio cholera, Cholera phase viruses, Streptococcus pyogenes and Aspergillus niger.

Hypochlorous Acid Reference Papers


For more information on our products or for technical support contact:
T: 08452 22 33 44
F: 01732 763330
info@medi-mark.co.uk
www.medi-mark.co.uk