



Biocetic 45

The dedicated agent for the Envomed 80 Medical Waste Treatment Solution



Biocetic - How does it work?

Once medical waste has been shredded by the Envomed 80 Medical Waste Treatment Solution, it goes through a sterilization process while being rigorously agitated. This process has been intensively studied and after years of research and development we have established the ultimate solution, eliminating resistant bacterial spores and sterilizing to STAATT level IV. The residue liquid is nontoxic and can be safely discharged down the regular drainage system.

We call it 'Biocetic' - which is based on the known powerful sporocide Peracetic Acid (PAA).

Important: Biocetic45 is only to be used in conjunction with Envomed machinery




Biocetic 45 Sterilant


For the purpose of medical waste treatment for sterilization by the Envomed 80 unit, Envomed uses a special solution named Biocetic 45. The Biocetic 45 is based on the synergistic sterilizing effect of Peracetic Acid (PPA) and Hydrogen Peroxide (HP).

Both chemicals are strong oxidizers and together, are highly potent at disrupting the cellular activity of all pathogenic microorganisms. The main active substance in the Biocetic 45 is PPA.


BIOCETIC 45

THE GREEN FORMULA FOR BIO MEDICAL WASTE TREATMENT

<p>High efficiency disinfectant antimicrobial agent. To be used for the treatment of pathogenic medical waste.</p> <p>Mixture of:</p> <ul style="list-style-type: none"> • Per-acetic acid 79-21-0 • Hydrogen peroxide 7722-84-1 • Acetic acid 64-19-7 • Stabilizing agents <ul style="list-style-type: none"> • H272 May intensify fire • H314 Causes severe skin burns and eye damage • H302 Harmful if swallowed • H335 May cause respiratory irritation <p>To be used only by Envomed medical waste treatment systems. Please refer to the Envomed operation manual for more details.</p> <p>Density: 1.1 gram/ml.</p>	<div style="text-align: center; font-weight: bold; color: red;">DANGER*</div> <div style="display: flex; justify-content: space-around;">    </div> <p style="font-size: small; text-align: center;">*Please refer to the BIOCETIC 45 MSDS for more information</p> <p style="font-weight: bold; text-align: center; background-color: #003366; color: white; padding: 2px;">To be used only by envomed waste treatment system</p> <p style="font-size: x-small;">Precaution statements:</p> <ul style="list-style-type: none"> • For industrial use only • Keep container tightly sealed • Store in a cool, dry, well ventilated place • Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking • Wear protective clothe, gloves and eye protection goggles • In case of eye or skin contact, Immediately remove any soiled clothing, rinse with plenty of water, seek medical consultation <p style="font-size: x-small;">Manufacturer: Z.D.C.AA, Israel Supplier: envomed by Maabarot. www.envomed.com</p> <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="border: 1px solid black; padding: 2px; font-size: x-small;">↑ THIS SIDE UP ↑</div> <div style="background-color: #003366; color: white; padding: 5px; font-weight: bold; font-size: large;">10 Lit</div> </div>
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UN3149, HYDROGEN PEROXIDE AND PEROXYACETIC ACID MIXTURE, STABILIZED



Biocidal Effect of PAA in 40°C Temperature of action

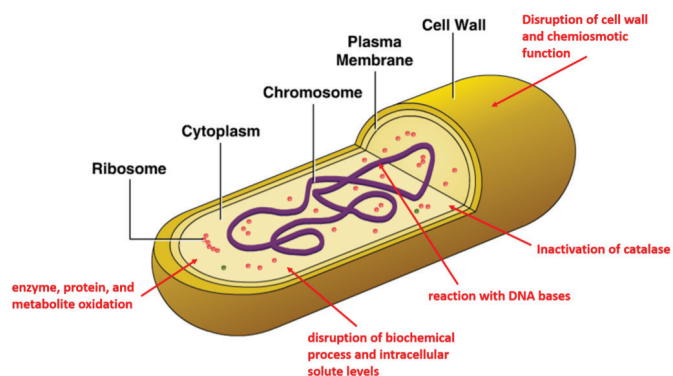
Kill times (in minutes) according to the suspension method of DLG with $10^7 - 10^8$ CFU / ml in the initial inoculum

Application concentration (%) as PAA 100%	0.01	0.025
Time it takes for sterilization		
Gram-Positive Bacteria		
Staph. aureus	1	0.5
Strept. faecalis	1	0.5
Gram-negative Bacteria		
Enterobacter aerogenes	1	0.5
Ps. aeruginosa	1	0.5
Salmonella types	1	1
Yeasts		
Sacch. cerevisiae	1	0.5
Cand. mycoderma	3	1
Molds		
Penicilium camerunese	3	1
Asp. niger	10	5
Mucor spec.	3	1
Sporulators		
Bac. cereus	1	0.5
Bac. subtilis	1	0.5
Bac. mesentericus		
Thermophile sporulators	1	0.5
Clostridium perfringens	1	0.5

Source: major PAA producer

Sporicidal Effects of Biocetic 45

PAA is a powerful oxidizer with a highly sporicidal ability (the capability to eliminate spores), it has been found to successfully inactivate a vast array of microorganisms. The mechanism of PAA is shown in Figure 1 below. The synergistic combination with the HP is based on the HP compromising the spore's coat, which is the main spore resistance factor, likely allowing better penetration of PAA.



The mechanism of PAA

The strong oxidizing effects of PAA result in:

For more information on Biocetic45, contact the team via envomed.com

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The breakdown of the molecular functions of the microorganism

Disruption of functionality of the microorganism proteins

Interruption to double bonds within the cell, leading to destruction of proteins

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