



The “Issue”

Humans have been creating disinfectants for millennia and of course some are more effective than others; for example, we moved from vinegar to bleach (Sodium hypochlorite) both of which have served mankind very well.

Over recent years we have been using alcohol, iodine and hydrogen peroxide to disinfect surfaces. The problem with these disinfectants is that they are good at disinfecting, at the point when they are wiped over a surface, but they offer no residual benefits.

For example, imagine the process of disinfecting a hospital room. A person starts cleaning the surfaces on the left side of the room, by the time that they have reached the right side of the room the freshly cleaned surfaces may have been re-colonised by pathogens.

This is clearly a completely unsatisfactory process. Cross contamination is one of the top ten leading causes of patient death in hospitals. The healthcare sector needed to find a solution to this problem and the solution lay in creating a disinfectant which combined sterilisation with long term residual protection.

The” Solution” – A Disinfectant with a *long-term* effect!

With Bacoban®, the primary objective was to develop a surface disinfectant that not only disinfects but also guarantees a long-lasting effect until the next disinfection. What an improvement considering that for decades the innovations in the field of disinfectants was rather moderate!

The fact that the project team came up with an effect that lasts up to 240 hours (10 days), was a complete surprise not only to us, but to all independent test labs and health facilities engaged in testing Bacoban®. The consequence of these unique research results is not to change current hygiene protocols perform disinfection only every 5 or 10 days, but rather to utilise this advantage to the benefit of patients, staff members and to improve infection control.

It does not make much difference whether the lasting disinfecting effect of Bacoban® against bacteria, fungi and viruses covers 3 or 10 days. The real benefit of such a disinfectant, if integrated into established disinfection plans, is that it ensures a significantly higher safety against the spreading of germs and viruses, thus reducing re-infection. It effectively closes the hygiene gap!

This is exactly what Bacoban® was developed for: to improve safety between the individual disinfecting steps and to give people a new tool in the control of germs and viruses that fits with their current protocols. Bacoban fights the cross contamination battle!

How does Bacoban® work?

Conventional disinfectants are effective immediately – but only for a short period.

Micro-organisms are only killed during the few minutes of the duration of the active period (wet dwell time).

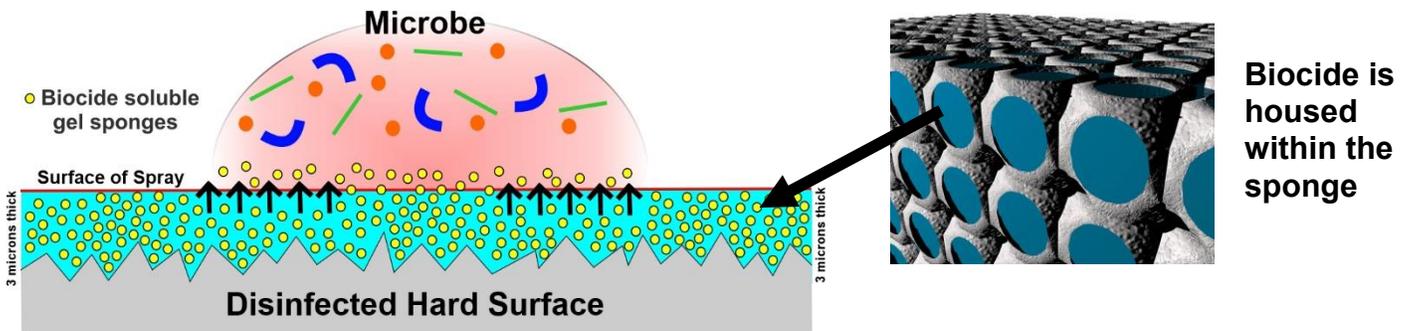
After that, when the disinfectant has evaporated, the treated area is subject to microbial strains. Until the next disinfection, a hygiene gap results, in which there can be a repeated settlement by micro-organisms.

Bacoban® works continuously through this time period!



The long-term effect of Bacoban® resolves the hygiene gap

Bacoban® establishes an ultra-thin (nano layer) film with a lasting effect. Bacoban® does not allow bio film to build up on the layer. This layer is too thin to be detected by either sight or touch. Between the new nano layer film, and old surface is where the extended disinfection occurs. The technology is the sol-gel process, where the biocides used to kill germs are embedded in the sponge-like sol-gel. The biocides are made available to disinfect again when they contact water (bacteria, enveloped viruses and fungi are always surrounded by a water shell).



Bacoban has a huge list of other advantages which add to the massive marketplace advantage

- Water Based
- Non-Corrosive – does not consume infrastructure
- No Volatile Organic Compounds (VOCs)
- Alcohol, Aldehyde and Phenol Free
- Dermatologically Tested
- Biocompatible
- Food Surface Safe
- Fragrance Free
- No Personal Protective Equipment (PPE) Required
- Can Be Used On Any Surface
- DIN# 02467690 Health Canada

Results from ASTM E 2180 testing:

	3 Days	5 Days	10 Days
Escherichia coli	> 99,997 %	> 99,994 %	> 99,996 %
Pseudomonas aeruginosa	> 99,996 %	> 99,995 %	> 99,997 %
Staphylococcus aureus	> 99,997 %	> 99,996 %	> 99,995 %
Candida albicans	> 99,997 %	> 99,992 %	> 99,997 %
Aspergillus niger	> 99,995 %	> 99,992 %	> 99,837 %