

# 聚護芯™：基於生物材料的抗菌、抗病毒核殼顆粒

## CareCoatex™: Biomaterial-based Core-Shell Particles for Antibacterial and Antiviral Applications

一種可快速而有效地消滅99%常見細菌和病毒的安全消毒塗料

A safe disinfectant coating that effectively and rapidly kills 99% of common bacteria and viruses

專利編號：US 8,993,065 B2 (美國)

### 特色與優點

- 無毒和具生物相容性
- 不含酒精、氯化物、有害化學物質和重金屬
- 具快乾和成膜能力，有助形成表面塗層
- 能封裝各種抗菌劑以達致接觸殺滅和長期釋放殺滅效果
- 能提供長效及持久的抗菌、抗病毒保護

### 應用

- 抗菌、抗病毒噴霧劑
- 消毒濕紙巾
- 布料塗層

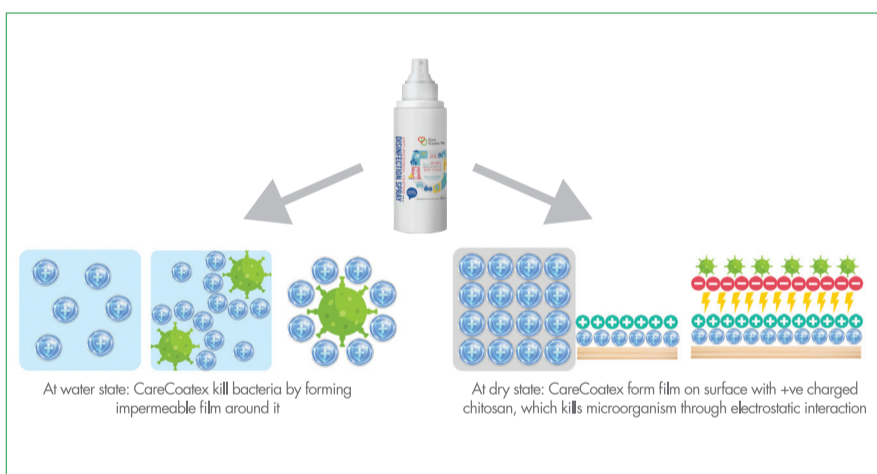
### 獎項

瑞士日內瓦國際發明展 - 2021年網上特別版 - 金獎 (2021年3月)

聚護芯是一種具生物相容性、無毒且環保的抗菌、抗病毒塗料，以專利殼聚糖基核殼顆粒製成，具有出色的成膜能力，能包裹天然抗菌劑，可達致接觸殺滅及長達六個月的保護效果。它能快速而有效地消滅99%的常見細菌（如金黃葡萄球菌）及病毒（如H1N1和HCOV-229E），非常適合消毒、控制污染和防疫等應用。此塗料非常容易使用，可於室溫和一般環境下操作，只需噴塗於物件表面即可，並且快乾和不會影響材料的外觀和觸感，適用於多種材質，包括金屬、混凝土、木材、玻璃、塑料和紡織品等。



聚護芯  
CareCoatex



聚護芯在接觸殺滅及長效釋放殺滅病毒和細菌方面的特性  
The contact killing and time-release killing properties of CareCoatex

CareCoatex is a biocompatible, non-toxic and eco-friendly antibacterial and antiviral coating that is made of patented chitosan-based core-shell particles. With its excellent film-forming ability and the natural antimicrobial reagents encapsulated in it, the coating can perform both contact killing and time-release killing for up to 6 months. It can effectively and rapidly kill 99% of common bacteria (e.g. Staphylococcus aureus) and viruses (e.g. H1N1 and HCOV-229E), and is therefore ideal for applications like disinfection, contamination control and epidemic prevention. CareCoatex can be easily applied by spraying under room temperature and normal conditions on various surfaces, such as metals, concrete, wood, glass, plastics and textiles. It is fast-drying and will not affect the material's appearance and tactile feel.

#### Principal Investigator

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Microorganism	Percentage Reduction (%)
Influenza A virus H1N1, VR-1496	99.91
Human Coronavirus 229E, VR-740	99.81
Escherichia coli	99.996
Pseudomonas aeruginosa	99.999
Staphylococcus aureus	99.999
Enterococcus hirae	99.999
Salmonella typhimurium	99.999

顯示聚護芯抗菌和抗病毒特性的測試報告  
Test report showing the antibacterial and antiviral properties of CareCoatex

Patent No.: US 8,993,065 B2

### Special Features and Advantages

- Non-toxic and biocompatible
- Free of alcohol, chloride, harmful chemicals and heavy metals
- Fast drying and good film-forming on various surfaces
- Capable of encapsulating various antimicrobial reagents to provide both contact killing and time-release killing
- Effective in providing antibacterial and antiviral protection with long-lasting effect

### Applications

- Antibacterial and antiviral sprays
- Antiseptic wet wipes
- Textile coating

### Award

Gold Medal - Special Edition 2021 Inventions Geneva Evaluation Days - Virtual Event (Mar 2021)

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View: Subject to data change by mobile operation