



OXYTECH
antimicrobial



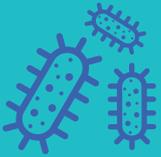
THE WORLD'S FIRST NON-LEACHING ANTIMICROBIAL NITRILE GLOVE

REDUCING HOSPITAL ACQUIRED INFECTIONS
ONE GLOVE AT A TIME



INTRODUCING THE WORLDS FIRST NON-LEACHING ANTIMICROBIAL GLOVE

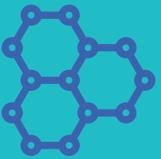
KEY FEATURES



Effective against
a wide range
of microbes



Quick kill



Non-leach
technology



Proven safe



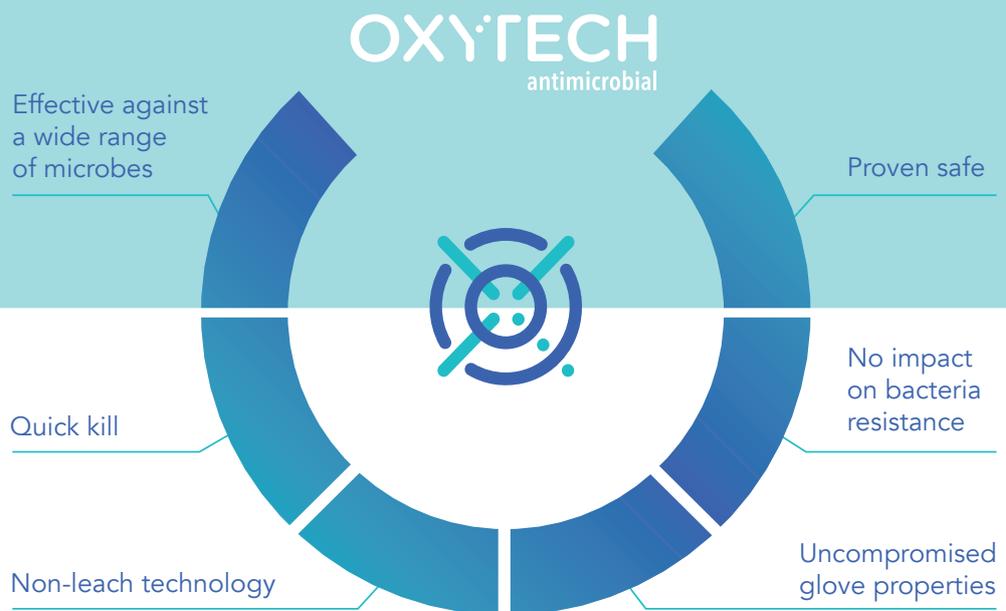
No impact
on bacterial
resistance



Uncompromised
glove properties

BENEFITS OF THE OXYTECH ANTIMICROBIAL GLOVE

-  World's 1st non-leaching antimicrobial gloves
-  Kills up to 99.999% of selected bacteria*
-  Provides active protection against HAIs
-  Tested non-sensitising on skin



OXYTECH ANTIMICROBIAL GLOVE: AN ACTIVE APPROACH IN PREVENTING HAIs

Oxytech Antimicrobial Gloves play an active role in reducing the spread of infections by using its killing mechanism. Contrary to conventional medical gloves that serve only as a passive barrier between microbes and your hand, Oxytech Antimicrobial gloves help reduce the risk of transmission from an infection source to a susceptible patient.

* Test Report Available on Request

ANNUAL IMPACT OF HAIs IN THE USA & EUROPE

USA

Affected Patients 1.7 million
Deaths 99,000
Cost approx. USD 6.5 billion



EU

Affected Patients 4.1 million
Deaths 37,000
Cost approx. EUR 7 billion

WHAT ARE HEALTHCARE-ASSOCIATED INFECTIONS (HAIs)?

Healthcare-associated infections are infections that develop as a result of medical care in a hospital or other healthcare facilities, which were neither present nor incubating at the time of transmission. It includes infections acquired by patients in the medical facility but emerging after discharge, as well as occupational infections among staff.

WHAT ARE THE ADVERSE EFFECTS OF HAIs?

Every year HAIs cause unnecessary suffering and higher medical cost for hundreds of millions of patients and their families around the world. These infections prolong hospital stay, increase the risk of post-operative complications and disabilities, increase resistance to antimicrobials and even result in unnecessary deaths and massive financial losses to the healthcare system.

HOW DO HAIs OCCUR?

Infections occur when microbes enter the body, breed and cause a reaction to the body, 3 things lead to an infection:

i. Source

A source is one within which an infectious agent, such as a virus, bacteria or other microbe thrives and reproduces. In healthcare settings, people such as patients, healthcare workers, visitors and family members can be a source of infection. Other sources include the healthcare environment where microbes can live and breed such as on dry and wet surfaces, dust or decaying debris, moist areas and indwelling medical devices.

ii. Susceptible Person

A susceptible person is someone who is not vaccinated or otherwise immune, or a person with a weakened immune system of which once exposed, provides a way for the microbe to enter the body. For an infection to take place, the microbe must first enter a susceptible person's body and attack the tissues, multiply and cause a reaction.



iii. Transmission

Transmission refers to the route or method by which microbes are transferred from the source to the susceptible person. In healthcare settings, microbes travel via several ways - physical contact (touching), sprays and splashes, inhalation, and sharps injuries, i.e. when a needle, scalpel or other medical instruments penetrate the skin. Among these routes, physical contact is the main mode of transmission in the healthcare setting.

CHAIN OF INFECTION

Source
(Reservoir)

Means of
Transmission
(Vehicle)

Susceptible
Person



People,
environment

Physical contact,
droplets, air and
sharps injuries

Non-vaccinated,
weakened
immune system

THE ROLE OF MEDICAL GLOVES

The World Health Organization (WHO) recommends wearing medical gloves to reduce the risk of:

- i. Blood and body fluid contamination of healthcare workers' hands.
- ii. Microbial dissemination in the environment, microbial transmission from healthcare workers to the patients and vice versa, as well as among patients.

Several clinical studies have confirmed the role of medical gloves in preventing contamination, dissemination and transmission of pathogens in healthcare settings. Thus, gloves should be worn as precautions throughout patient care activities that may involve exposure to blood and body fluids and during outbreak situations.

Nonetheless, inappropriate glove storage, and inappropriate techniques for glove donning and removing, may result in microbial transmission. Once contaminated, gloves can become a source for spreading infectious agents to healthcare workers, patients and environmental surfaces.



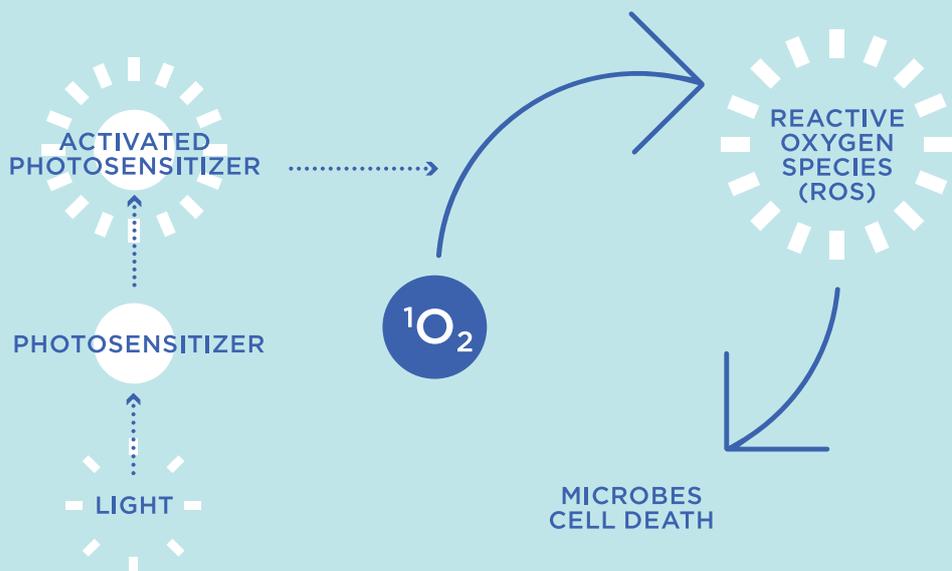
ANTIMICROBIAL GLOVE: AN ACTIVE APPROACH IN PREVENTING HAIs

Contrary to conventional medical gloves that serve only as a passive barrier between microbes and your hands, OXYTECH antimicrobial gloves can play an active role in reducing the spread of infections by using its killing mechanism.

The OXYTECH glove is designed to kill microorganisms on the external side of the glove quickly upon contact. The active ingredient on the glove is a photosensitizer which generates singlet oxygen when exposed to light. This singlet oxygen oxidizes the bacteria's protein and lipid, thus leading to the death of microbes.

Ultimately, OXYTECH antimicrobial glove helps reduce the risk of transmission from an infection source to a susceptible patient.

PHOTODYNAMIC ACTION LEADING TO CELL DEATH



BACTERICIDAL EFFICACY OF OXYTECH ANTIMICROBIAL GLOVE



MRSA

99.988%
IN 5 MINUTES



Enterococcus Faecalis

99.982%
IN 5 MINUTES



Enterococcus Faecium

99.991%
IN 5 MINUTES



Staphylococcus Aureus

99.996%
IN 5 MINUTES



Streptococcus Pyogenes

99.94%
IN 5 MINUTES



E-Coli

99.03%
IN 5 MINUTES



Klebsiella Pneumoniae

96.471%
IN 5 MINUTES

OXYTECH ANTIMICROBIAL BENEFITS EXPLAINED FURTHER

NON-LEACH TECHNOLOGY

AMG is the world's first non-leaching antimicrobial examination glove. The active has been tested for non-migration with the following medium:

- i. Water
- ii. Hot Water (45 degrees Celcius)
- iii. Sweat
- iv. Saliva
- v. Ethanol

All extracts were analysed at Intertek using validated analytical techniques to detect the active. Results conclude that no active could be found in any of the extracts from either the inner or outer glove surface. Although the active is proven safe, AMG has been designed to further ensure that it does not leach and transfer to the patients.

NO IMPACT ON BACTERIA RESISTANCE

The potential for development of bacterial resistance to the active has been assessed as 'low'. This is attributed to the non-specific nature of the glove's bacteria-killing mechanism.

Generally, oxidative antimicrobials such as the AMG technology has been viewed as low probability for development of resistance by the EU Scientific committee.

PROVEN SAFE

AMG glove is suitable for different applications as it has been tested safe for use against various contacts such as skin, oral and food. Some of these tests confirm that the AMG glove is:

- **Non-irritating**
It does not cause primary skin irritation like redness (erythema) or slight swelling (edema).
- **Non-sensitising**
It does not contain any substance that will induce skin allergy.
- **Non-toxic**
No toxic effects occurring following oral administration.
- **Non-cytotoxic**
It does not display destructive action on cells.
- **Non-sensitiser & low dermatitis potential**
Modified Draize Test shows the gloves do not cause allergic reaction in normal tissue after exposure.

OXYTECH ANTIMICROBIAL GLOVES ACCREDITATION

UNCOMPROMISED GLOVE PROPERTIES

Apart from medical settings, AMG glove has been proven safe for use in different applications and industries. Its safety and effectiveness are proven to ensure it befits its intended use.

i. Medical

Tested for impermeability and glove strength, the AMG glove is effective in preventing contamination between patient and healthcare practitioner, as well as for handling various chemotherapy drugs. All tests conducted are in accordance to recognised international standards such as ASTM D6319, EN 455 and ISO 11193 part 1.

ii. Personal Protective Equipment (PPE)

The glove is tested to protect users from substances and mixtures that are hazardous to health, and harmful biological agents that may cause very serious consequences or damage to health. Tests conducted are in accordance to the harmonized standard which complies with PPE Regulation.

iii. Food Handling

The glove is tested safe for food contact according to the standards of US FDA, BfR XXI German Recommendation and Japan Food Sanitation. It is tested in various types of simulants representing different types of food that are acidic, alcoholic and fatty in content.



ACCREDITATION



IN ACCORDANCE WITH

- Medical Device Directive - 93/42/EEC Class 1 (2007/47/EC)
- EN455-1,2,3,4 - Medical Gloves for Single use.
- EN374-1,2,3-Determination of Resistance to Water Penetration. Leak test passed. Chemicals tested: NaOH (40%) Level 6, H2SO4 (96%) Level 1, Heptane Level 0
- ISO 9001: 2000 Certified by SGS (UK) and SIRIM (Malaysia)
- ISO 13485: 2003 Certified by SGS (UK)



DISTRIBUTOR INFORMATION

TRANSFORMING PASSIVE PREVENTION TO ACTIVE PROTECTION



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