

**GREEN
DEFENCE**

We Protect Your Health





GREEN DEFENCE

GREEN DEFENCE's main components are natural materials from cinnamon and almond. Their natural antibacterial features are used to prevent bacterial growth. There are no heavy metal compounds present and no disinfectant was added.

GREEN DEFENCE is natural, non-toxic, non-leaching and not irritating to the skin.

We are surrounded by harmful bacteria in our daily life, so it is fundamental to use antibacterial supplies in the pursuit of healthy and sanitized life quality.

2011



A group of chemical and biotech doctors discovered that the concentration of bacteria over the clothing and covering of the wound was too high, and therefore they want to produce a textile which is antibacterial and does not harm the human body and the environment.

2012 ~ 2014



From thousands of food materials, cinnamon and almond have been discovered to be effective antibacterial materials. From both the Chinese and foreign history, they have always been used as antibacterial agents in America, Asia and Europe. Their usage has had more than a thousand years of history.

2014



In order to allow the antibacterial components to be fairly distributed among the polyester or the nylon chips. After several experiments, the prototype has started to emerge, so the natural antibacterial agents of the plastic have been born.

2014 ~ 2015



Pharmaceutical manufacturing -> Masterbatch -> Spinning -> Weaving; the ideal effects were believed to be achieved, so it was officially launched in front of the public in 2015 with the hope of a healthier future for people by the of natural, environmentally friendly and antibacterial features.



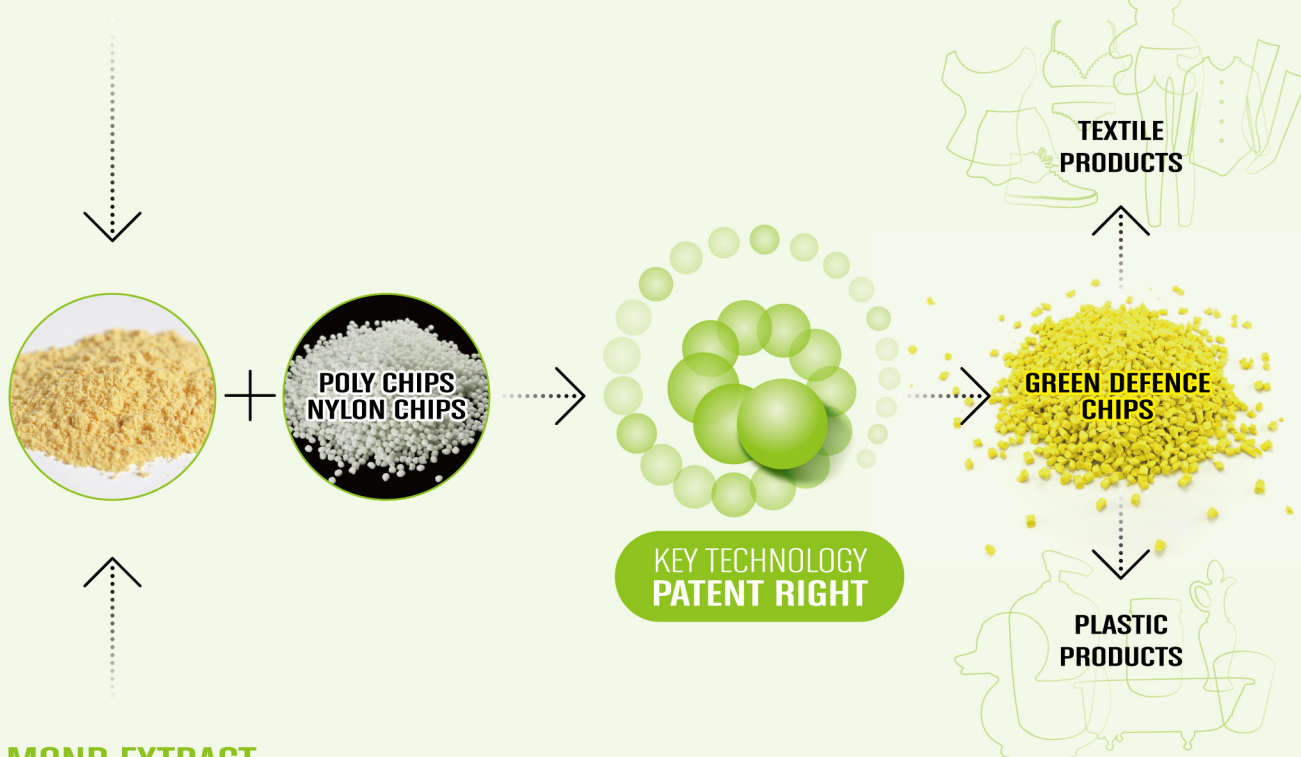
CINNAMON EXTRACT

Medical usage

It has an outstanding sterilization effect over Gram-positive bacteria and can also be used for the healing of various diseases caused by bacterial infection. It is discovered that it also has a strong fungicidal activity, especially for the skin fungi. It mainly destroys the fungal cell wall, allowing the medicine to penetrate into the fungal cell, and then it destroys the organelles, achieving the fungicidal effect.

Application in the food industry

Added to chewing gum and toothpaste, it can achieve the effects of disinfection and deodorization. As a food additive, it is mainly used for sterilization, disinfection and antiseptis functions.



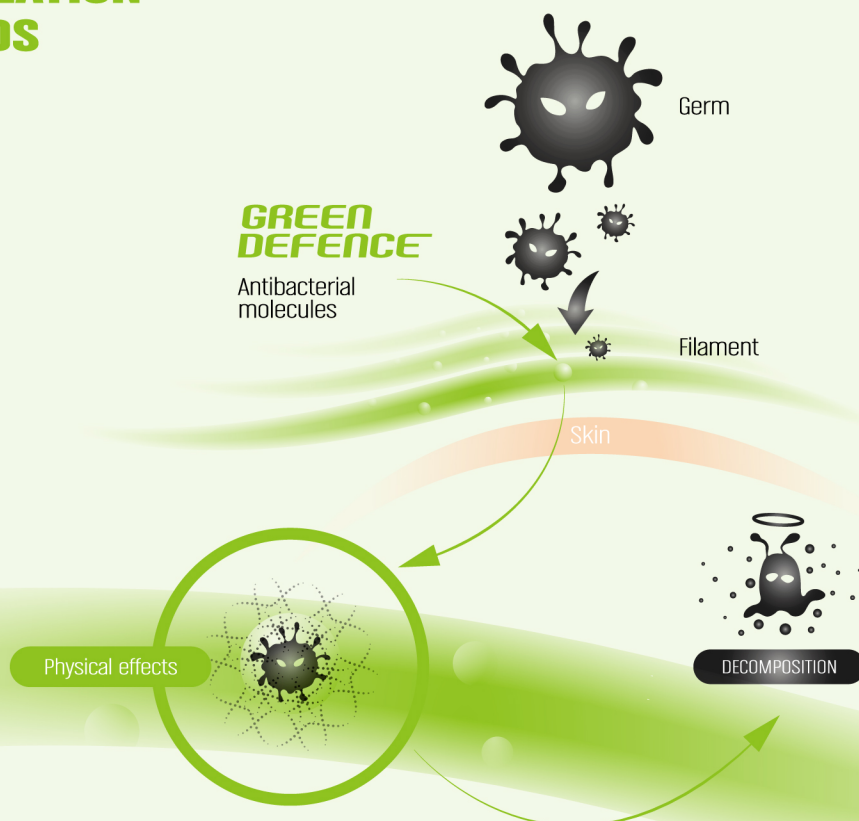
ALMOND EXTRACT



As the chemical structure of mandelic acid in almonds is similar to antibiotics, it can actually inhibit the propagation of different bacteria, such as Staphylococcus aureus, Escherichia coli, streptococci and anaerobic bacteria. Different antibacterial agents can be added into polymeric plastic by using technological techniques, so the products would have the antibacterial effects. It would certainly be a guarantee for human beings' life as to prevent any bacterial risks that would harm human health. It can also be applied in future R&D of antibacterial plastic.

STERILIZATION METHODS

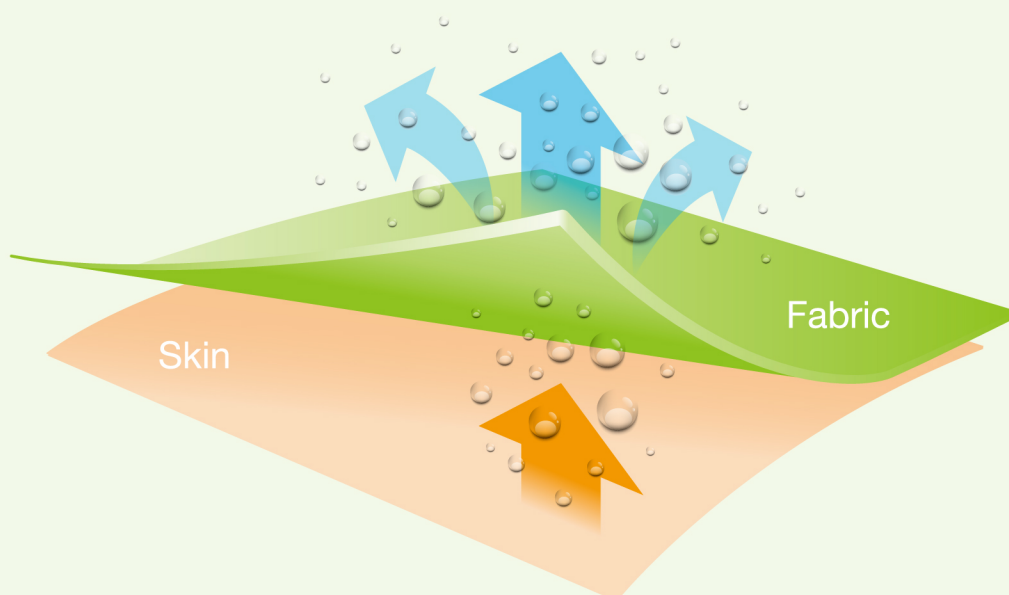
**GREEN
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TEXTILE SHOW STRONG ABSORPTION

Test Report Reference Number: TWNT01163100

By our new technology, it makes fiber absorb water, convey water and spread faster, the capability of absorbing water is 3 times more faster than cotton, so the fabric could absorbing moisture and sweat on the skin surface, and evaporate through outer layer. It's been certified by INTERTEK (AATCC 197-2011, Option B) that it performs super strong absorption.



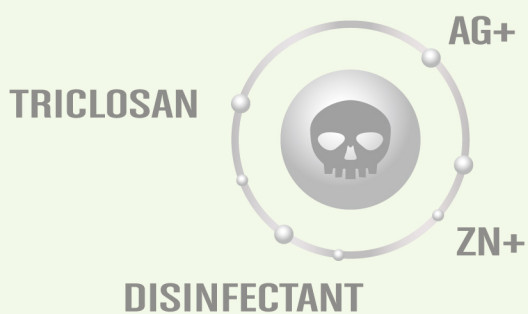
SAFETY



Under the polymerization process at a temperature of more than 480°F, cinnamon and almond extract are blended into polyester or nylon. Therefore, the particles will not leach out during washing and at use. GREEN DEFENCE is all natural, non-leaching and can provide consumers overall protection.

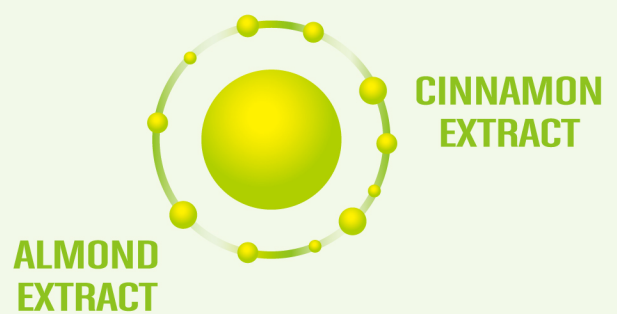
without GREEN DEFENCE

Heavy Metal & Chemical



GREEN DEFENCE

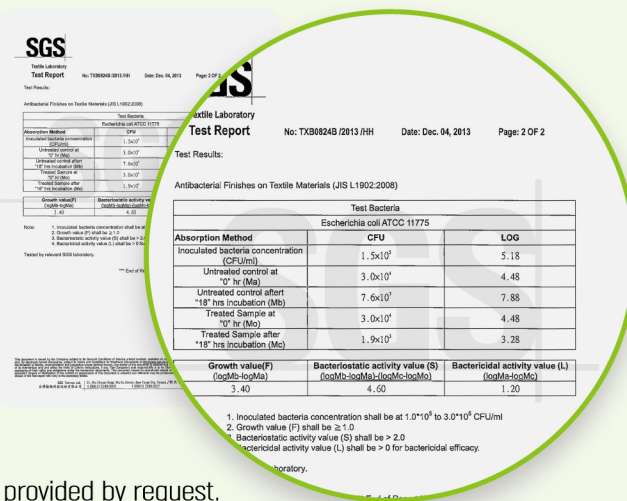
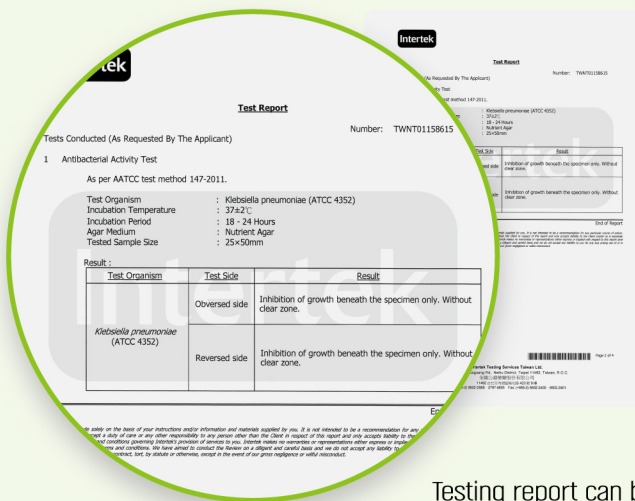
Natural & Non-Leaching



TECHNIQUES

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Professional and Technical Certification	INTERTEK - SGS
Antibacterial Activity Test	AATCC - JIS
Antibacterial Species	Klebsiella pneumoniae - Staphylococcus aureus - Escherichia coli....etc.
Mould Resistance Test	ASTM G21-13
Mould Culture Used	Aspergillus niger ,Penicillium pinophilum, Chaetomium globosum, Trichoderma virens and Aureobasidium pullulans var. melanogenum
Wicking Test	AATCC 197-2011 - Option B



Testing report can be provided by request.

SCOPE OF APPLICATION

The factory has ISO9001 9002 certification

TEXTILE PRODUCTS

Personal clothing, underwear, socks, tights, rhythm clothing, yoga clothing, medical clothing, sportswear, swimwear, shoes, masks, facial mask, wet wipes, filling materials, towels, hygiene items, blankets, bedding, home textile.

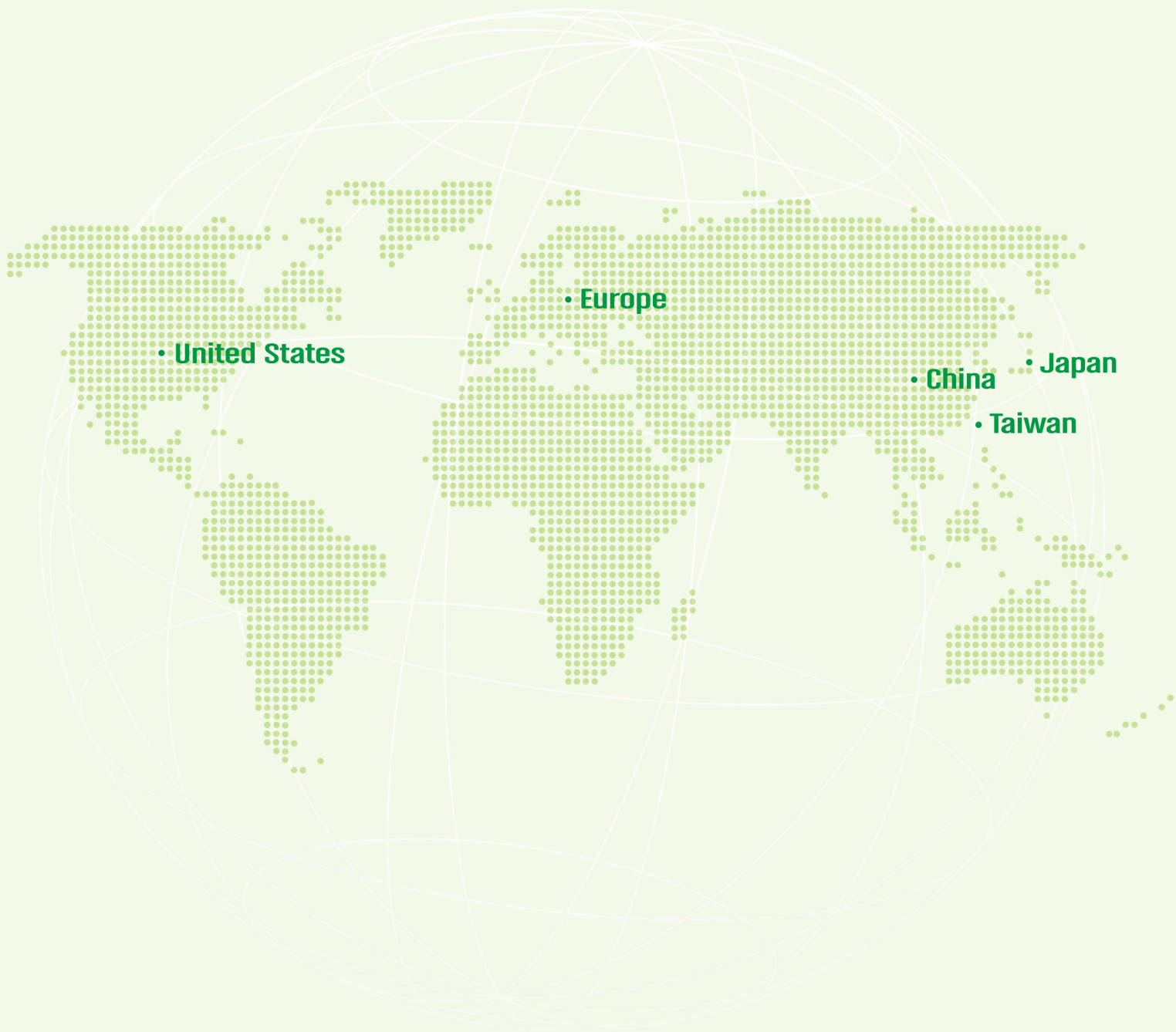


PLASTIC PRODUCTS

Phone shell, kitchen supplies, toiletries, toys, filler and insole.



THE COUNTRY OF APPLICATION FOR PATENT



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