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Antimicrobial fibres, fabrics and apparel: innovative weapons against infection

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Abstracts

The demand for antimicrobial fibres, fabrics and apparel has increased sharply since the mid-1990s due to growing awareness among consumers of the importance of personal hygiene and the health risks posed by certain microorganisms. As a result, there is a new generation of antimicrobial products on the market which offer protection against a broad spectrum of bacteria and can withstand up to 100 launderings. However, the increase in usage of such products has caused concern among environmental groups who claim that some antimicrobial agents -- notably silver nanoparticles and triclosan -- are toxic and should be banned from use in consumer products. Amid these concerns, researchers and scientists are stepping up their efforts to develop effective and durable antimicrobial products which are less likely to be harmful to human health and the environment. This report provides a wealth of information, insight and analysis on: the market for antimicrobial fibres, fabrics and apparel; microorganisms and their effects; techniques for preventing the proliferation of microorganisms in apparel; antimicrobials for textile and apparel applications; and methods of imparting antimicrobial properties to fabrics. It also includes information on antimicrobial efficacy testing and regulations, and safety and environmental issues associated with antimicrobial agents. Furthermore, the report provides insight into the applications of antimicrobial agents in apparel, recent developments in antimicrobial treatments, key producers of antimicrobial agents and treatments, and key producers of antimicrobial fibres and fabrics, as well as an outlook for the future.

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PRODUCERS

Allied Feather & Down: Allied Refined down
Cupron: Cupron Enhanced
Dow Chemical Company: Silvadur
HaloSource: HaloShield
HeiQ Materials: Pure
Lonza: Purista
Microban International: Microban
Milliken: AlphaSan
Polygiene: Polygiene
Quick-Med Technologies: Stay Fresh
Sanitized: Sanitized
Sciessent: Agion Active
Thomson Research Associates: Silpure

KEY ANTIMICROBIAL FIBRES AND FABRICS AND THEIR

PRODUCERS

Nylstar: Meryl Skinlife

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NanoHorizons: SmartSilver
Noble Biomaterials: X-static
PurThread Technologies: Sabiya
Rhovyl: Rhovyl'As
Thai Acrylic Fibre: Amicor
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