

# Antimicrobial Protection

According to the CDC, hospital acquired infections kill nearly 100,000

Americans per year with 2 million patients needing additional treatment costing over \$25B. Over the last 10 years customers have been working with Conventus Polymers on materials that minimize infection rates. With the current Covid-19 outbreak, new customers are partnering with Conventus to develop custom anti-pathogen compounds.

Conventus formulates a solution, supplies the raw material, and certifies materials with test report documentation to enable customers to maximize the benefits of their anti-pathogen products.

# **Protect the Part...Protect People**

- Offering several antimicrobial technologies
- Active self-cleaning in between use of disinfectants
- Prevention of microbial growth to limit odor development, discoloration, staining, and part degradation
- ▶ Wash resistant and instantly active (inorganic only)

FIT

Applications where common pathogens grow unchecked: fungal, bacterial or viral

**FORM** 

Performance additive for textile fibers or melt processable plastic products

**FUNCTION** 

Inhibit harmful pathogen growth and indirectly reduce contact transfer

#### **Antimicrobial Protection Applications Inorganic Organic** Films Textiles Molded Thermoplastics Colorable Limited Broad **Use Conditions** Inorganic **Organic** Temperature Stable Limited Topical Disinfectant Stable Limited Non-Migratory Washable Stable Limited **Antimicrobial Type Pathogens** Inorganic Fungal/Bacterial/Viral/Algae Organic Fungal/Algae

BLEACH





## **Antimicrobial Additives - Testing Results**

Type of Bacteria	Fabric Tested	When Tested	Number of Bacteria
Staphylococcus aureus	All fabrics	Upon inoculation	1-8x10 <sup>4</sup>
Staphylococcus aureus	Standard cloth	Inoculation 18 hours	1-2x10 <sup>7</sup>
Staphylococcus aureus	Polypropylene control	Inoculation 18 hours	1-2x10 <sup>7</sup>
Staphylococcus aureus	Additive @ 1.5% LDR	Inoculation 18 hours	<20
Escherichia coli	All fabrics	Upon inoculation	2-4x10 <sup>4</sup>
Escherichia coli	Standard cloth	Inoculation 18 hours	3-5x10 <sup>7</sup>
Escherichia coli	Polypropylene control	Inoculation 18 hours	3-4x10 <sup>7</sup>
Escherichia coli	Additive @ 1.5% LDR	Inoculation 18 hours	<20

## Quantitative Assessment of Activity: E. Coli, L monocytogenes, and S. chloreraesuis

Concentration of Starting Inoculums		No. Bacteria Recovered in 24 Hours			Percent Reductoon			
E. Coli	L. monocytogenes	S. chloreraesuis	E. Coli	L. monocytogenes	S. chloreraesuis	E. Coli	L. monocytogenes	S. chloreraesuis
1.68E5	1.63E5	4.27E5	<2E1	5.04E1	2.88E2	>99.9	>99.9	>99.9

### Allowable Market Claims - Antimicrobials -

#### CAN

- ✓ Contains agents that will protect from:
  - · Odor
  - Discoloration
  - Fouling
- ✓ Follow labeling of registered antimicrobial
  - End application (treated article exemption)
  - · Polyester filament

#### **CANNOT**

- X Kill organisms dangerous to people or animals
- X Prevent infections
- X Protects against food spoilage
- X Claims to control spread of allergens
- X Protecting public health directly or indirectly

Source: Pesticide Registration (PR) Notice 2000-1 Notice to Manufacturers, Formulators, Producers and Registrants of Pesticide Products.



2001 Route 46, #310 | Parsippany, NJ 07054 USA | Tel: 973.343.7669

Email: info@conventuspolymers.com | www.conventuspolymers.com

ALTHOUGH ANY INFORMATION, RECOMMENDATIONS, OR ADVICE CONTAINED HEREIN IS GIVEN IN GOOD FAITH, CONVENTUS POLYMERS MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, (I) THAT THE RESULTS DESCRIBED HEREIN WILL BE OBTAINED UNDER END-USE CONDITIONS, OR (II) AS TO THE EFFECTIVENESS OR SAFETY OF ANY DESIGN INCORPORATING CONVENTUS POLYMERS AND ITS REPRESENTATIVES SHALL IN NO EVENT BE RESPONSIBLE FOR ANY LOSS RESULTING FROM ANY USE OF ITS MATERIALS OR PRODUCTS DESCRIBED HEREIN. Each user bears full responsibility for making its own determination as to the suitability of Conventus Polymers materials, products, recommendations, or advice for its own particular use. Each user must identify and perform all tests and analyses necessary to assure that its finished parts incorporating Conventus Polymers materials or products will be safe and suitable for use under end-use conditions. Nothing in this or any other document, nor any oral recommendation or advice, shall be deemed to alter, vary, supersede, or waive any provision of Conventus Polymers Standard Conditions of Sale or this Disclaimer, unless any such modification is specifically agreed to in a writing signed by Conventus Polymers.

© Conventus Polymers 12/2020