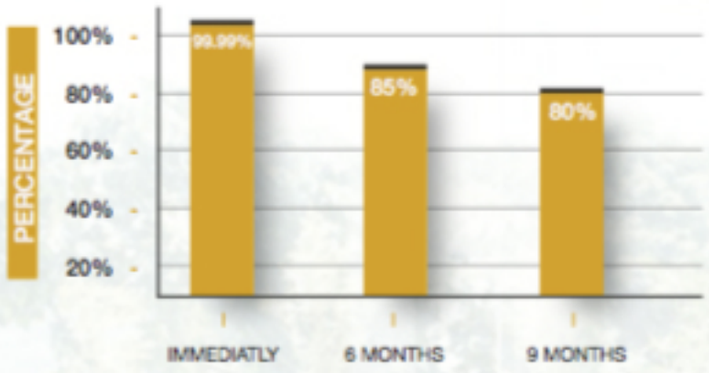
APPLICATION TESTING RESULTS

Defend-GS™ uses an application of pure gold (.99999) and silver. Defend-GS™ is created in water at extremely low concentrations. In fact, to illustrate the safety level, the concentrations involved are lower than the EPA standard for standard municipal drinking water. The precision placement and permanent application create a very effective barrier against toxic bacteria buildup.The precisely fabricated nanoparticles in Defend-GS™ are able to mechanically disassemble the organisms on contact. They break down the bonds of the organisms and render them incapable of multiplying while being undetectable by humans on any surface. A permanent application takes place without the use of any chemical or toxic additive. The application is 100% organic and safe.



EFFECTIVENESS OVER TIME

EFFECTIVE PRECISION

Defend-GS™ has a proprietary 2-part application process that applies billions of bacteria fighting units to any surface in a matter of seconds. Defend-GS™ is applied by a fine mist of micron-size water droplets. The unscented application does not mark, damage, or discolor surfaces. Also safe for textiles unaffected by contact with a fine water mist. A surface or textile can be used immediately after treatment. There is no waiting period. Once on that surface the nanoparticles bind at the atomic level and remain

EFFECTIVE REAL WORLD RESULTS

Nelson Laboratories, an FDA-registered and ISO 17025 accredited provider of full life-cycle microbiology testing services, performed multiple anti-bacterial tests using Defend-GS™ material. In accordance with USFDA regulations 21 CFR Part 58, Nelson Labs conducted three Time Kill studies following standard Test Protocol 0158 Rev 02.

Results from the first Nelson Labs test, direct application

STAPHYLOCOCCUS AUREAS

- 6 HOUR - 66.0%
- 12 HOUR - 99.2%
- 24 HOUR - 99.9%
- 24 - 3.68 REDUCTION LOG

MENTHICILIN RESISTANT (MRSA)

- 6 HOUR - 17.0%
- 12 HOUR - 78.0%
- 24 HOUR - 99.8%
- 24 - 2.7 REDUCTION LOG

E-COLI

- 6 HOUR - 84.0%
- 12 HOUR - 99.9%
- 24 HOUR - 99.9%
- 24 - 3.68 REDUCTION LOG

LISTERIA

- 6 HOUR - 86.0%
- 12 HOUR - 96.2%
- 24 HOUR - 99.98%
- 24 - 3.88 REDUCTION LOG

E-COLI

- 6 HOUR - 99.5%
- 12 HOUR - 99.9%
- 24 HOUR - 99.99%
- 24 - 6.16 REDUCTION LOG

EFFECTIVE REAL WORLD RESULTS

Top 5 Organisms by quantity count found in 8 hotel rooms as identified from direct sampling

East Coast – West Coast – Mid-West (Nelson Labs)

01 STAPHYLOCOCCUS CAPITIS
02 STAPHYLOCOCCUS EPIDERMIDIS
03 MICROCOCCUS LUTEUS
04 STAPHYLOCOCCUS WARNERI
05 KOCURIA SALSICIA

In lab test results as performed on actual hotel room surfaces after a single one second treatment

MARBLE
81% REDUCTION
24 HOUR LAB TEST

STAINLESS
94% REDUCTION
24 HOUR LAB TEST

PLASTIC ABS
87% REDUCTION
24 HOUR LAB TEST

CERAMIC TILE
96% REDUCTION
24 HOUR LAB TEST

FORMICA
REDUCTION 91%
24 HOUR LAB TEST

PORCELAIN
95% REDUCTION
24 HOUR LAB TEST

ALL NATURAL COMPONENTS

79 Au Gold 196.967

47 Ag Silver 107.868

FABRICS (SHEETS, PILLOW COVERS, COMFORTERS, TEXTILES)

REFERENCE:

TS	115948
Style	TSG- 10-14-15
Color	Dark Blue Size: N/A
Description	pima; treated; sample "D" 100x

Sample Type	: Woven Fabric
Sample Form	: Yardage
Size	: N/A

TEST RESULTS:

Dimensional Change (Fabrics):

Dimensional Changes of Fabrics after Home Laundering - AATCC Test Method 135-2012

Testing Information:

Home Laundered 100 times using AATCC Monograph M6 "Standardization of Home

LAUNDRY TEST CONDITIONS:

load size = 1.8kg (4lbs.).

Top Loader ✓ Machine Wash Normal ✓ Warm ✓

Using 2003 AATCC Standard Liquid Reference Detergent WUB ✓

Tumble ✓ Dry Normal ✓ Medium ✓

Ballast: Wash Load Type 1 - 92 x 92 cm (35 x 36 in.) hemmed pieces of bleached cotton sheeting

Antibacterial Finishes: L-A-B Accredited ISO/IEC 17025 Certificate # L223B Testing

Assessment of Antibacterial Finishes on Textile Materials - AATCC 100-2012

	Results: cfu/sample		
	Zero Contact Time	24hr Contact Time	Percent Reduction
Staphylococcus aureus ATCC 6538	1.10E+07	9.99E+02	99.99196

Calculate % reduction to formula 2) 100 (C-A)/C = R; section 11.2

Testing Information: **E. coli was run concurrently. Reported separately per customer request.

Staphylococcus aureus ATCC 6538	Sample size # layers: 4
Escherichia coli ATCC 25922	Sterilization: autoclave
Growth media: Tryptic Soy Broth	

The above test result illustrates the durability of the Defend-GS™ product. The sample cotton material was commercially laundered by a 3rd party (MSC) testing facility 100 times. The resulting removal of 99.991% of all bacteria after 100 washes is incomparable. A single treatment of Defend-GS™ binds and works at the atomic level. It does not wash off and can only be removed if the surface of an object is removed.

SAFETY

Defend-GS™ is non-toxic, chemical free, harmless to the environment and has no negative effects downstream. Because of its unique structure and fabrication method, it is a completely stable product. Defend-GS™ creates pure organic metal alloys that are not chemically manufactured, altered, or stored. The manufacturing process is environmentally friendly and requires very little space and energy. Defend-GS™ has an extremely small, non-existent carbon footprint that is world changing on a world economic scale.

NON TOXIC

LIMITLESS WORLDWIDE