



State of New Jersey

DEPARTMENT OF THE TREASURY
DIVISION OF PURCHASE AND PROPERTY
PURCHASE BUREAU
P.O. Box 230
TRENTON, NEW JERSEY 08625-0230

JON S. CORZINE
Governor

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State Treasurer

AMENDMENT #79 T-1817

SOLICITATION #30045

TO:	All Using Agencies and Cooperative Purchasing Participants
FROM:	Doreica Holt Procurement Specialist
DATE	April 18, 2008
SUBJECT:	COMMODITIES COUNCIL PRODUCT ADDITION OF GOLDSHIELD 5 ANTIMICROBIAL SANITIZER
CONTRACT PERIOD:	09/01/99 to 11/30/08

Please note the addition of the follow product of Goldshield 5 Antimicrobial Sanitizer (**see technology below**) under **contract A89072** for **Commodities Council**. This contract is available and may be **viewed under NOA T1817** on the Purchase Bureaus' website at <http://www.state.nj.us/cgi-bin/treas/purchase/search.pl>.

Line No.	Commodity Description	Unit	Unit Price
00446	Commodity Code: 435-04-074531 Goldshield Sanitizer Ready to use 32 oz. bottles 12 bottles per case	Case	\$ 72.84

Please attach this amendment to your NOA for quick reference.

Technology

About Goldshield™ Antimicrobial Technology

Goldshield is a unique, nano-molecular assembly that is the world's first water-stabilized antimicrobial formulation providing a long-term residual disinfecting action. It will not leach off the surface or substrate to which it is applied and will render those surfaces inhospitable to microbes. It is the first commercial application of technology developed at Emory University which received three U.S. Patents (Patent Nos. US5,959,014, US6,221,944 and US6,632,805).

The first aqueous-based solution.

Unlike other antimicrobial agents that modify surfaces, such as the metallic and phenol-based materials, Goldshield is the first to be aqueous-based, non-toxic, mercury free and non-flammable. The primary material and its byproducts are non-hazardous and environmentally benign.

Covalently bonds to virtually any surface.

Goldshield creates a covalent bond – or a cross-linking action – with a vast array of organic and inorganic surfaces, and the most complex surface topologies. Its multi-dimensional polymeric structure ensures complete coverage.

Will not leach, diffuse or become mobile.

Unlike conventional disinfectants and antimicrobials, Goldshield will not leach off substrates, and retains its antimicrobial action for long periods of time. (In textile applications, it has been shown to retain effectiveness after 50 standard washes.) This is significant in areas and environments where toxic microorganisms proliferate.

Effective against broad spectrum of microbes.

Goldshield has been demonstrated to be a broad-spectrum algacide, bactericide and fungicide. It has also been proven efficacious against *Staphylococcus aureus*, MRSA, *Salmonella*, *E.coli* and other hardy Gram(+) bacteria.

and Gram (-) bacteria such as those which cause odor and staining of textiles.

Microbes do not develop resistance.

Since Goldshield does not diffuse or migrate and because of its unique antimicrobial action, there is no known or anticipated risk for pathogens to genetically adapt.

Easy to ship, store and apply.

Liquid aqueous-based formulas are easy to transport, store and apply – by spraying, rolling on or fogging.

Cost-effective and price competitive.

The formulas are highly efficient – they are effective with application of a minimum amount of the active ingredient.

Highly durable.

Goldshield imparts a durable, broad-spectrum biostatic surface finish in the presence of moisture.

Commercial and Industrial Applications

The applications for patented Goldshield antimicrobial technology are virtually endless. Initially, NBS will be focusing on the following sectors:

- **Healthcare**
- **Agribusiness**
- **Food & Beverage**
- **Hospitality**
- **Consumer Products**
- **Military**

The active ingredient in Goldshield can be used as a final bacteriostatic finish on the following items to impart bacteriostatic/fungistatic (mold and mildew) activity:

- Air filters for furnaces, air-conditioners, air purification devices, automobiles, recirculating air handling systems
- Air filters/materials
- Aquarium filter material
- Bed sheets, blankets, and bedspreads
- Buffer pads (abrasive and polishing)
- Carpets and draperies
- Cellulose sponges
- Concrete additive for sewer pipes, manholes and concrete sewer structures (not to be used in treatment of storm drains)
- Concrete additive for repair and renewal of sewer pipes and manholes and concrete sewer structures; not to be used in treatment of storm drains
- Exterior walls (such as stone, concrete, brick)
- Fiberfill for upholstery, sleeping bags, apparel, where the fiber is cotton, natural down, nylon, polyester, rayon or wool
- Fiberglass ductboard
- Fire hose fabric
- Humidifier belts
- Mattress pads and ticking

- Men's underwear and outerwear
- Non-woven disposable diapers
- Non-woven polyester
- Outerwear apparel (jackets, sweaters, sweatshirts, coats, raincoats, overcoats, jerseys, ponchos)
- Paints and coatings (including latex indoor/outdoor paints and stains, wood-stains, architectural paints, lacquer and maintenance coatings, films, laminates and finishes including alkyd, urethane, enamel, epoxy, siloxaline, amino resins, textile coatings, extrusion coatings, architectural coatings and overlays, anti-corrosion coatings, fire-resistant coatings, aliphatic coatings, vinyl-ester and polyester coatings, gel coatings, amino resins, resins used as additive mixes for cement, epoxy laminating resins, and blends and copolymers thereof)
- Polyurethane and cellulose foam for household, industrial, and institutional sponges and mops
- Polyurethane and polyethylene foam, when covered
- Polyurethane foam for packaging and cushioning in non-food contact applications
- Polyurethane foam used as a growth medium for non-food crops and plants
- Pre-moistened towelettes and tissue wipes (these do not impart pesticidal properties)
- Roofing materials - defined as shingles, roofing granules, wood shakes, felt, stone and synthetic overcoats
- Sand bags, tents, tarpaulins, sails, and ropes
- Shoes (athletic and casual) and shoe insoles
- Shower curtains
- Socks composed of nylon, nylon/orlon, cotton/nylon, linen/Lycra, acrylic/polypropylene/nylon/Lycra, wool/silk/nylon/Lycra and wool/acrylic/nylon/Lycra
- Throw rugs
- Toweling made of 100 percent cotton, 100 percent polyester, and blends of the two fibers
- Toilet tank and seat covers
- Umbrellas
- Upholstery made of acetates, acrylics, cotton, fiberglass, nylon,

polyester, polyethylene, polyolefins, polypropylene, rayon, spandex, vinyl and wool

- Vacuum cleaner bags and filters
- Vinyl paper-wallpaper for non-food contact surfaces
- Disposable wiping cloths suitable for multiple purposes such as dusting or washing furniture, cars, walls, windows, floors, appliances, dishes and counter-tops (wiping cloths do not impart pesticide properties)
- Women's hosiery
- Women's intimate apparel

FOR IMMEDIATE RELEASE:
JUNE 22, 2006

CONTACT: HERMAN KOTLER
1.866.NBST.889B

BREAKTHROUGH FORMULA SHOWN TO PROVIDE LONG-TERM SHIELD AGAINST CONTAMINATION

EPA Approves Goldshield™ Antimicrobial Formulation From NBS Technology

Locust Valley, NY – NBS Technology, LLC, announced today that the United States Environmental Protection Agency has approved its Goldshield™ 5 antimicrobial formulation.

Goldshield™ 5 is derived from an invention NBS secured through an exclusive global license from Emory University, Atlanta, GA. It is the first non-toxic, water-stabilized, non-leaching formula that provides long-lasting residual protection against harmful microorganisms, considered by the Center of Disease Control (CDC) to be the third largest cause of death after cancer and heart disease.

This unique antimicrobial can be applied to virtually any surface or substrate and will dramatically reduce the presence and growth of bacteria, fungi, yeasts and certain viruses, according to Tom Higgins, President/CEO of NBS Technology. "Our company and others have conducted tests which have demonstrated the formula's efficacy against mold, mildew, algae, fungi, Staphylococcus aureus, MRSA, Salmonella, E.coli, VRE, pseudomonas, HIV B and many other microorganisms," he said. "These test results indicate the long-lasting protection Goldshield™ 5 affords, which will provide many industry sectors with solutions to microbial contamination problems they deal with daily."

According to Mr. Higgins, NBS is initially focusing its marketing activities on select industries including healthcare, hospitality, food and beverage processing, agri-business, consumer products, marine industry, institutional and industrial and textiles.

This patented Goldshield™ formula is easy to ship, apply and store – it is non-flammable and otherwise environmentally benign. Another significant advantage of Goldshield™ over conventional disinfectants and antimicrobials is that there is no known or anticipated risk for pathogens to

genetically adapt.

"This technology represents a significant step forward in antimicrobial and disinfectant technologies," Mr. Higgins said. "It can revolutionize the approach to the prevention of cross-contamination."

NBS is seeking to develop relationships with users and distributors of its products worldwide. These relationships may be constructed as distribution agreements, licensing agreements, joint venture agreements and direct sales. For more information, contact: NBS Technology, LLC, P.O. Box 428, 157 Skunks Misery Rd., Locust Valley, N.Y 11560; phone: 516.674.4085; email: enbst@optonline.net; website: www.nbsgoldshield.com.

NBST

TECHNICAL DATA SHEET

NBS Technology, LLC NBST 05

(Antimicrobial-Microbiostatic Agent)
EPA Registration No. 082766-NY-001-XXX
EPA Estab. Number 082766-NY-001

PRODUCT DESCRIPTION

A water-stabilized organosilane 3-(trimethoxysilyl)propyldimethyl-octadecylamine ammonium chloride) that provides effective antimicrobial properties on a wide variety of materials. This water-based product is easy to formulate and eliminates the hazards of conventional methane-based additives and heavy metal antimicrobials. *NBST05* is stable aqueous solution of a Silicone Quaternary Ammonium Salt that can provide a durable microbiostatic finish when applied to siliceous surfaces, natural and man made fibers, metals, leather, concrete, masonry, siding, drywall, wood, rubber, plastic and Formica. For a general description of the typical chemical and physical properties refer to the Material Safety and Data Sheet.

BENEFITS

- Effectively inhibits the growth of mold/mildew, algae and bacteria on various surfaces
- Protects against microbial deterioration, discoloration and odor
- Provides an invisible, durable microbiostatic finish
- Non-flammable
- Provides anti-static properties to surfaces
- Applies fast and easily
- Dries quickly after application
- Effective over a broad pH range (3-10)

APPLICATIONS

NBST 05 provides an invisible, durable microbiostatic finish that protects surfaces against biodeterioration by inhibiting microbial growth. This product will deliver effective inhibition of bacteria, mold/mildew and algae; thus protecting, surfaces against deterioration, discoloration and odors.

DIRECTIONS FOR INDUSTRIAL USE

NBST 05 can be diluted by adding 3.2 to 32 fluid ounces per gallon of water or other solvents (alcohol and ketones) and then applied to organic or inorganic substrates by brushing, dipping, padding, soaking, spraying, fogging or by using foam finishing techniques to give a final treatment of 0.1 to 1.0% by weight by active ingredient (2.0 to 20% product). Exact dosages can be determined through microbiological laboratory evaluations conducted by NBS technology, LLC.

DIRECTIONS FOR COMMERCIAL USE

NBST 05 can be diluted by adding 8 fluid ounces per gallon of water and then applied to organic or inorganic substrates by pump and commercial spray applications, dipping, soaking or fogging. All substances can be dried at room temperature or at temperatures to a maximum of 160°C (320°F).

MATERIALS OF COMPATIBILITY

NBST 05 is compatible with materials such as textiles, tiles, brick, cinder block, PVC, CPVC, polyethylene, polypropylene, stainless steel, aluminum, metals, Kynar, Teflon, Viton, Hypalon, plywood, lumber, roofing material, siding materials, drywall, sheathing, concrete, concrete block, residential, commercial and industrial application.

COMPATIBILITY

NBST 05 's water-based formulation offers uniform dispensability and is compatible with a wide variety of materials and mixtures.

STORAGE AND HANDLING

Read the label and Material Safety and Data Sheet for complete handling information before using this product.

PACKAGING

NBST 05 is packaged in pails, drums, and disposable totes.

REMARKS

If you need assistance or information, please call NBS technology, LLC at 866.NBST.889 or email: enbst@optonline.net.

For Medical and Transportation Emergencies involving this product call CHEMTREC (24 hour response): number 800-262-8200.

NBST

MATERIAL SAFETY DATA SHEET

PRODUCT

Goldshield 5™

EMERGENCY TELEPHONE NUMBER

(800)262-8200 (24 Hours) CHEMTREC

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : *Goldshield 5™*

CHEMICAL DESCRIPTION : Organosilane

COMPANY IDENTIFICATION : NBS Technology, LLC
157 Skunks Misery Rd. (PO Box 428)
Locust Valley, New York 11560
Ph: 516.674.4085; toll free 866.NBST.889

EMERGENCY TELEPHONE NUMBER : (800)262-8200 (24 Hours) CHEMTREC

2. COMPOSITION/INFORMATION ON INGREDIENTS

Our hazard evaluation has identified the following chemical substance(s) as hazardous. Consult Section 15 for the nature of the hazard(s).

<u>Hazardous Substance(s)</u>	<u>CAS NO.</u>	<u>% Weight</u>	<u>TWA</u>	<u>STEL</u>
3-(Trimethoxysilyl)propyldimethyloctadecyl ammonim chloride	27668-52-6	5%	N/A	N/A
Chloropropyltrimethoxysilane	2530-87-2	<3%	0.1ppm	N/A

The above information is not intended for use in preparing product specifications.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Warning:

MAY CAUSE SUBSTANTIAL BUT TEMPORARY EYE INJURY HARMFUL IF ABSORBED THROUGH SKIN OR INHALED.

Do not get in eyes or on clothing. Avoid contact with skin or clothing, and avoid breathing vapor. Wear protective eyewear (goggles or face shield). Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash clothing before use.

PRIMARY ROUTES OF ENTRY :

Inhalation, skin contact, ingestion, and eye contact

POTENTIAL HEALTH EFFECTS :

EYES:

Direct contact will cause substantial but temporary eye injury.

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SKIN:

May cause slight irritation.

INGESTION :

Harmful if swallowed.

INHALATION :

Harmful if inhaled for long periods.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Not known

CARINOGENS:

OSHA: No ACGIH: No NTP: No IARC: No

SECTION 3 NOTES: none

The above listed potential effects of overexposure are based on actual data, results of studies performed upon similar compositions, component data, and/or expert review of the product.

4. FIRST AID MEASURES

EYES: Hold eye open and flush with a steady, gentle stream of water for 15-20 minutes. If present remove contact lenses after the first 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice.

SKIN: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

INGESTION: Call a poison control center or doctor immediately for treatment advice. Have the person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

INHALATION: Move person to fresh air. If not breathing, give artificial respiration. Seek medical attention.

SECTION 4 NOTES: Treat the same as methyl alcohol poisoning.

5. FIRE FIGHTING MEASURES

FLAMMALBE LIMITS IN AIR :	UPPER: N/A
	LOWER: N/A
FLASH POINT:	N/A
EXTINGUISHING MEDIA:	N/A
SPECIAL FIRE FIGHTING PROCEDURES:	N/A
UNUSUAL FIRE AND EXPLOSION HAZARDS:	N/A
HAZARDOUS DECOMPOSITION PRODUCTS:	N/A

SECTION 5 NOTES: None

MATERIAL SAFETY DATA SHEET

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6. ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES :

Steps to be taken if material is released or spilled: Do not contaminate water, food, or feed by material. Disposal of collected product, residues, and clean-up materials may be governmentally regulated. Observe all applicable local, state, and federal waste management regulations. Mop, wipe, or soak up with absorbent and contain for salvage or disposal. Clean any remaining slippery surfaces by appropriate techniques, such as: several moppings or swabbings with appropriate solvents; washing with mild, caustic detergents or solutions, or high pressure steam for large areas. For non-silicones, use typical industrial cleaning materials. Observe any safety precautions applicable to the cleaning material being used. See applicable regulatory compliance information in section 15.

SECTION 6 NOTES: See Section 8 for Personal Protective Equipment for Spills.

7. HANDLING AND STORAGE

HANDLING : Wear appropriate personal protective equipment. (See Section 8)

STORAGE: Store in original closed container in a secure area inaccessible to children and away from food or feed.

OTHER PRECAUTIONS: Do not freeze product

SECTION 7 NOTES: None

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Local exhaust and General exhaust recommended.

RESPIRATORY PROTECTION: Use respiratory protection unless adequate local exhaust ventilation is provided or air sampling data shows exposures are within recommended exposure guidelines. Industrial Hygiene Personnel can assist in judging the adequacy of existing engineering controls. A suitable respirator would be a self-contained breathing apparatus (SCBA) or other supplied respirator.

EYE PROTECTION: Wear protective eyewear (goggles, face shield, or safety glasses with side shields.)

SKIN PROTECTION: Chemical protective gloves are recommended. (suitable gloves: SilverShield®, 4H®, Viton®)

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE	Pale yellow, slightly viscous liquid at 25°C
APPEARANCE	Liquid
ODOR	Odorless or slight alcohol
SPECIFIC GRAVITY	(@68°F/20°C): 1.0g/ml

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SOLUBILITY IN WATER	Complete
pH	5
FREEZING POINT	Not available
BOILING POINT	Not available
MELTING POINT	Not available
VAPOR PRESSURE	Not available
VISCOSITY	(@ 68°F/20°C): 393 mPas
VOLATILE CONTENT	(>0.1 mm Hg): <10%

SECTION 9 NOTES: None

10. STABILITY AND REACTIVITY

STABILITY: Under normal conditions this material is stable

HAZARDOUS POLYMERIZATION: Hazardous polymerization will not occur.

CONDITIONS TO AVOID: None

INCOMPATIBLE MATERIALS TO AVOID: Acids, alkalis, strong oxidizing agents, and anionic surfactants

SECTION 10 NOTES: Water, moisture, or air can cause hazardous vapors to form as described in Section 2.

11. TOXICOLOGICAL INFORMATION

The following results are for the product.

ROUTES OF ENTRY: Inhalation, Skin Contact, Ingestion, Eye Contact

TOXICITY: Eye Irritation: Mildly irritating to eyes (Rabbit)

SECTION 11 NOTES: None

12. ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL EFFECTS: This pesticide is toxic to fish. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with requirements of the National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product into sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or regional office of the EPA.

SECTION 12 NOTES: None

NBST

MATERIAL SAFETY DATA SHEET

PRODUCT

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(800)262-8200 (24 Hours) CHEMTREC

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Do not contaminate water, food, or feed by storage and disposal. If these wastes cannot be disposed of by use according to the label instructions, contact your State Pesticide or Environmental Control Agency of the Hazardous Waste Representative at the nearest EPA regional office for guidance.

SECTION 13 NOTES: Contaminated products/soil/water may be RCRA/OSHA hazardous waste. Inactivation of solutions containing *Goldshield 5™* may be accomplished by addition of an anionic surfactant or detergent in quantity equivalent to that of *Goldshield 5™* solution. Container disposal: (plastic) Triple rinse (or equivalent), then offer for recycling or reconditioning, puncture and dispose of in a sanitary landfill, incineration, or by burning (if allowed by the state and local authorities). If burned, stay out of smoke.

14. TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION: Not required

SECTION 14 NOTES: None

15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:

TSCA (Toxic Substances Control Act) Status: All components of this product are listed on the TSCA inventory of chemical substances.

CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT):

Methanol: 5000.00 LB RQ

SARA 302 COMPONENTS - 40 CFR 355 APPENDIX A: None

311/312 HAZARD CATEGORIES:

Acute: No

Chronic: No

Fire: No

Pressure: No

Reactive: No

313 REPORTABLE INGREDIENTS: None

STATE REGULATIONS:

California

Warning: This product contains the following chemical(s) listed by the State of California under the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) as being known to cause cancer.

None

MATERIAL SAFETY DATA SHEET

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PRODUCT

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EMERGENCY TELEPHONE NUMBER

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Warning: This product contains the following chemical(s) listed by the State of California under the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) as being known to cause birth defects or other reproductive harm.

None

Massachusetts

Methanol

New Jersey

3-(Trimethoxysilyl)propyldimethyloctadecyl ammonium chloride

Chloropropyl trimethoxysilane

Methanol

Pennsylvania

3-(Trimethoxysilyl)propyldimethyloctadecyl ammonium chloride

Chloropropyl trimethoxysilane

Methanol

INTERNATIONAL REGULATIONS: European Inventory of Existing Commercial Chemical EINECS registry number for 3-(trimethoxysilyl)propyldimethyloctadecyl ammonium chloride is 248-595-8. (EINECS No. 248-595-8)

SECTION 15 NOTES: None

16. OTHER INFORMATION

PREPARATION INFORMATION: Prepared by NBS Technology, LLC.

DISCLAIMER: This information is offered in good faith as typical values and not as a product specification. No warranty, expressed or implied is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.

Date issued : 09/09/05

Replaces : 01/12/05