



GOLDSHIELD TECHNOLOGIES

Goldshield 5 is a 5% water based liquid concentrate, intended to be diluted before application. For ideal performance of the technology's residual action of long-term protection it is best to clean or remediate the surface before application. Permit the surface to dry and apply GS 5 by the recommended dispensing systems. If there is limited mold or other fungi GS, 5 can be directly applied to remove these microbes and then re-applied with a second application.

PRECAUTIONARY STATEMENTS

WARNING. At 5% concentrate causes substantial, but temporary eye injury. Harmful if absorbed through skin or inhaled. Do not get in eyes. Avoid contact with skin and avoid breathing vapor. Wear protective eyewear (goggles or face shield). Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse.

ENVIRONMENTAL HAZARDS

Commercial and industrial uses: This micro-biostatic agent is toxic to fish when discharged in bulk. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a 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 to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

De-activation may be required during clean up if a spill occurs. De-activation of **Goldshield®5** can be achieved by the addition of anionic surfactant (such as soap, sulfonates, sulfates) in quantity equivalent to that of **Goldshield® 5**.

Homeowner use: This micro-biostatic agent is toxic to some fish. When discharged in bulk. Do not apply directly to water. Do not contaminate water by cleaning of equipment or disposal of pesticide.

DIRECTIONS FOR USE
Approved commercial and Industrial Applications

Approved commercial applications used in homes, offices, automobiles and institutions

e.g., schools, hospitals, daycare centers, assisted living, churches, correctional facilities

DIRECTIONS FOR USE Commercial and Industrial Locations

Use Goldshield 5 or alternatively GS 5 [this product] in/on the locations listed below.

Homes Bathrooms Shower and bath areas

Restaurants
Convenience stores Institutions
 Colleges & Universities

Clinics
Dental Offices Churches
Health Care Facilities Schools
Hospitals
Medical Offices Barber shops
Nursing Homes Salons
 Tattoo Parlors

Camp grounds
Day Care Centers
Playground areas Nurseries

Animal laboratories
Animal Clinics Farms
 Hog Farms
Pet Animal quarters Cannabis Farms and Grow Houses
Kennels Dairy Farms
Pet shops Mushroom Farms
Zoos Poultry Farms and Grow Houses
 Turkey Farms
 Citrus Farms and Grow Houses

Athletic Facilities Prisons
Exercise facilities Correctional Facilities
Locker Rooms
Fitness Centers
Yoga Facilities

Airplanes Ambulances Public rest rooms
Boats Public Facility
Buses Campers

Businesses
and office buildings
Dressing rooms
Transportation terminals
Factories

Taxis
Cars and Rental Vehicles
Emergency vehicles
Mobile Homes
Subway cars and facilities

Ships
Hotels
Motels

International Space Station
Space Vehicles
Submarines

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Wear protective eyewear (goggles or face shield) and gloves when using this product. Dry treated areas and articles such as clothing before use. Remove children and pets from treated area until completely dry.

Prepare solutions by simply adding **Goldshield®5** to solvent and stirring. Dilute **Goldshield®5** by adding 5 or 6 parts water to 1 part **Goldshield®5** concentrate and stir or Dilute **Goldshield®5** by adding 0.2 to 2 fluid ounces of **Goldshield®5** per cup (3.2 to 32 fluid ounces of **Goldshield®5** per gallon) of water or other solvents (for example, alcohol and ketones) and then applied to organic or inorganic substrates by brushing, dipping, soaking, spraying, to give a final treatment of 0.1 to 1.0 percent by weight active ingredient.

By Electrostatic sprayers, such as Victory or ESS, dilute by adding 6 parts water to one part concentrate. Using a hand held device with 40 micron release the yield per gallon should be 2800+ sq. ft. per 33.8 oz. container.

Dry substrates at temperatures from ambient to a maximum of 160° C (320° F) to effect complete condensation of silanol groups and to remove water, solvents and/or traces of methanol from hydrolysis. Optimum application and drying conditions, such as time and temperature, should be determined for each application before use. If necessary, reapply **Goldshield®5** every three months (90 days) or when odor, staining and discoloration due to bacteria, mold stains, and mildew stains return. For protection up to 90 days or when bacteria or fungi re-occur GS5 may be used in concentrate form as a laundry protectant to inhibit bacteria and fungi that cause odor, staining and discoloration, or diluted (5 parts water to 1 part GS5) as a surface antimicrobial agent. When used as a laundry additive take Goldshield in the full concentrate and pour in during the rinse cycle. After rinsing remove and dry at normal settings.

Goldshield®5 when used as a concrete additive is added directly during concrete preparation. Use 6 fluid ounces **Goldshield®5** per cubic feet of concrete. Add to water before addition of concrete. Addition of **Goldshield®5** reduces deterioration of sewer pipes and manholes by inhibiting microbiologically induced corrosion.

Goldshield ®5 when used as an additive for paints and coatings is added directly during preparation of the paint or coating. Use 5 pounds of **Goldshield ®5** per 100 pounds of paint or coating (or 1 pound **Goldshield ®5** per 20 pounds paint/coating). The addition of the antimicrobial agent **Goldshield ®5** to paints at the point of manufacture preserves the paint in the can as well as the dried paint film. **Goldshield ®5** inhibits the growth of odor causing bacteria, bacteria which causes staining and discoloration, fungi (mold and mildew), and algae on the surface of dried films and coatings.

Some of the Approved commercial and industrial applications

The active ingredient in **Goldshield ®5** is effective against bacteria, fungi, odor causing bacteria, bacteria which cause staining and discoloration, fungi (mold and mildew) and algae as a static agent. **Goldshield ®5** 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
- Athletic facilities, lockers, locker rooms, benches, gym equipment, countertops, yoga mats, wrestling mats, exercise balls, synthetic grass
- Bed sheets, blankets, and bedspreads
- Beds, bed railings and bed frames
- Buffer pads (abrasive and polishing)
- Carpets and draperies
- Cages, made of cement or concrete, metal bars
- Cellulose sponges
- Chairs and furniture made of composite materials, wood or metals
- Changing counters, and rooms, doorknobs, floors, laminate flooring
- Apply GS 5 to cell phone glass and casing, remote call devices, TV remote control devices, stationary phones and handles, let dry and wipe clean any residue.
- 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
- Film of PVA poly vinyl alcohol, polyvinyl acetate, polypropylene, PVC (poly vinyl chloride), used for packaging non-food products

- Garbage cans, trash cans
- Glass
- Humidifier belts
- Interior and exterior of transportation vehicles; automobiles [cars], taxis, buses, trains, boats, ships, EMS vehicles and the cushions, seat covers, carpets contained therein.
- Institutional & Industrial delivery carts, made of synthetic substrates or textiles, laundry linen carts, scales, stools, wheel chair seats-backs and arm rests, gurneys and gurney covers of synthetic materials
- Lamp stands, light fixtures, light switches and plates,
- Mattress pads and ticking, mattress pads of vinyl, PVC, PVA, poly vinyl acetate or other synthetic materials
- Men's underwear and outerwear
- Non-woven disposable diapers
- Non-woven polyester
- Outerwear apparel (jackets, sweaters, sweatshirts, coats, raincoats, overcoats, jerseys, ponchos)
- *Goldshield* ®5 can be used in paints and coatings as an in can preservative for protection of paint film and coating film. Types of paints and coatings include : latex indoor/outdoor paints and stains, wood-stains, architectural paints, lacquer and maintenance coatings, films, laminates and finishes including alkyd, urethane, enamel, epoxy, siloxane , 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) used for non-food contact surfaces
- Refrigerators-exterior
- Roofing materials - defined as shingles, roofing granules, wood shakes, felt, stone and synthetic overcoats
- Room tables, made of wood, composite materials and metals, cabinets made of wood, composite materials, metals, cages
- Sand bags, tents, tarpaulins, sails, and ropes
- Athletic and casual shoes
- Shoe insoles

- Shower curtains, privacy curtains, of cotton, cotton blends of polyester, nylon or viscose, polypropylene and other synthetic fibers
- Shower stalls, walls, floors, ceilings
- Shopping cart handles, industrial push carts
- Socks comprised 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, bathroom faucets and sinks
- Umbrellas
- Upholstery made of acetates, acrylics, cotton, fiberglass, nylon, polyester, polyethylene, polyolefins, polypropylene, rayon, spandex, vinyl, wool
- Vacuum cleaner bags and filters
- Vinyl paper-wallpaper for non-food contact surfaces
- Disposable wiping cloths that can be used for multiple purposes such as dusting or washing furniture, cars, walls, windows, floors, appliances, dishes, counter tops on non-food contact surfaces; the wiping cloths do not impart pesticide properties
- Women's hosiery
- Women's intimate apparel

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For Pump Spray Application: Dilute *Goldshield*® 5 by adding 5 parts water to 1 part *Goldshield*® 5 concentrate and stir or dilute 8 ounces of *Goldshield*® 5 per gallon of water (2 oz. per quart; 1oz. per pint). Using pump sprayer, spray entire area 4"- 6"s from the surface making sure the surface is completely covered. Apply and then let stand until dry or let stand 3 minutes and wipe dry with cloth or sponge. If spotting occurs, wipe with moist cloth or sponge. Test for staining and color-fastness of fabrics and carpets by treating and drying a small, concealed area prior to application. *Goldshield*® 5 treats approximately 200 square feet per diluted gallon of water. When treating coarser substrates, more

Goldshield ®5 may be required due to absorption. A fan may be used to assist in drying carpeting.

For Electrostatic Spraying: There are various machines, we can recommend these units; Victory, ESS, and EMist as some that have been used by our applicators. A typical 40-80 micron unit will achieve 4000 sq. ft. per gallon. Follow manufactures instruction yet typically hold 4-‘ 6’ from surface. Dilute by adding 5 or 6 parts water to one part concentrate.

For Commercial Spray Application: For commercial application equipment (i.e. carpet/upholstery steamers, rotary jet extraction cleaners, pressure sprayers) dilute 8 ounces of *Goldshield* ®5 per gallon of water (2 oz. per quart; 1oz. per pint); mix well. Apply and then let stand until dry or let stand 3 minutes and wipe dry with cloth or sponge. If spotting occurs, wipe with moist cloth or sponge. Test for staining and color-fastness of fabrics and carpets by treating and drying a small, concealed area prior to application. *Goldshield* ®5 treats approximately 200 square feet per diluted gallon of water. When treating coarser substrates, more *Goldshield* ®5 may be required due to absorption. Dry carpet areas and surfaces before re-entry and dry articles before use. A fan may be used to assist in drying carpeting.

Laundry additive:

TAKE FULL CONCENTRATE OF GOLDSHEILD 5 AND ADD DURING THE RINSE CYCLE

For protection up to 90 days or when bacteria or fungi re-occur *Goldshield* 5 may be used in concentration form as a laundry protectant to inhibit bacteria and fungi that cause odor, staining and discoloration. Add *Goldshield* 5 in concentrated form during the laundry rinse cycle, which will result in a dilution with 9 parts water to 1 part GS 5 or a resulting 0.5% active. For applying to surfaces dilute (5 parts water to 1 part GS5 resulting in a 0.83% active) as a surface antimicrobial agent.