

Disinfectant, Sanitizer & Virucide



Nisus DSV™ kills Hantavirus, Avian Flu, HIV-1, Hepatitis B & C and Much More.

Nisus DSV™ is a broad spectrum disinfectant, sanitizer, virucide, mildewstat, fungicide and deodorizer that is labeled to kill 31 strains of bacteria and 19 different viruses.

- Labeled for use in hundreds of commercial establishments, including:
 - farms & agribusinesses
 - kennels
 - veterinary practices
 - hospitals
 - day care centers & nurseries
 - nursing homes
 - restaurants, institutional kitchens, food processing areas
 - supermarkets
- Labeled for many residential area uses, including:
 - kitchens
 - bathrooms
 - whirlpools
 - humidifiers
 - floors & carpeting

Nisus DSV comes in an economical concentrate that is diluted and applied by spraying, using a mop and bucket or by soaking.

As a multipurpose solution, Nisus DSV can be used both for everyday cleaning as well as a wide variety of critical or emergency situations. For example, it's not only perfect for disinfecting water damaged areas prior to reconstruction, but also for eliminating Hantavirus in the Southwest (*see the label for specific instructions on using Nisus DSV against Hantavirus*).



**SEWER BACKUP • FLOODING • WATER/SMOKE DAMAGE RESTORATION
HOME • INDUSTRIAL • HOSPITAL • FOOD-PROCESSING & FARM PREMISES**

ACTIVE INGREDIENTS:

Octyl Decyl Dimethyl Ammonium Chloride	1.650%
Didecyl Dimethyl Ammonium Chloride	0.825%
Dioctyl Dimethyl Ammonium Chloride	0.825%
Alkyl (C14, 50%; C12, 40%; C16, 10%) dimethyl benzyl ammonium chloride	2.200%
INERT INGREDIENTS	<u>94.500%</u>
TOTAL	100.000%

EPA Reg. No. 10324-80-64405 EPA Est. 64405-TN-1

**KEEP OUT OF REACH OF CHILDREN
DANGER**

PRECAUTIONARY STATEMENTS

Hazards to Humans & Domestic Animals

DANGER. Keep Out of Reach of Children. Corrosive. Causes irreversible eye damage and skin burns. Harmful if swallowed or absorbed through the skin. Harmful if inhaled. Avoid breathing spray mist. Do not get into eyes, on skin or on clothing. Wear goggles or face shield and rubber gloves and protective clothing when handling. Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco. Remove contaminated clothing and wash clothing before reuse.

PHYSICAL OR CHEMICAL HAZARDS

Do not use or store near heat or open flame. Do not mix with oxidizers, anionic soaps and detergents.

STORAGE AND DISPOSAL

Store in original container in areas inaccessible to small children. Do not store on side. Avoid creasing or impacting of side walls. Do not reuse empty container. Wrap and discard in trash (or recycle).

PELIGRO: SI NO PUEDE LEER EN INGLES, PREGUNTE A SU SUPERVISOR SOBRE LAS INSTRUCCIONES DE USO APROPIADAS ANTES DE TRABAJAR CON ESTE PRODUCTO.

First Aid

Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

IF ON SKIN OR CLOTHING: 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.

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have 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.

IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for further treatment advice.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

NISUS DSV

Disinfectant, Cleaner, Mildewstat, Fungicide, Sanitizer (nonfood contact surfaces), Virucide*, Deodorizer for Hospitals, Nursing Home, Whirlpool, Home, Institutional, Industrial, School, Dairy, Equine, Poultry/Turkey Farm, Veterinary, Restaurant, Food Handling and Process Areas, Federally Inspected Meat and Poultry Plants, Bar and Institutional Kitchen Use and for Harvesting & Handling Equipment. Effective in hard water up to 400 ppm hardness (calculated as CaCO₃) in the presence of 5% serum contamination.

Small Fly Ovicidal Treatment.

Formulated for effective Poultry, Swine Premise and Mushroom Farm Sanitation.

Nisus DSV for use in:

- Hospitals, nursing homes, medical and dental offices and clinics, physician offices, operating rooms, isolation wards, and medical research facilities, hospices.
 - Patient care rooms & facilities, recovery rooms, anesthesia, Emergency Rooms, X-ray cat labs, newborn nurseries, orthopedics, whirlpool surfaces, footbath surfaces, respiratory therapy, surgi-centers, labs, blood collection rooms, central supply, housekeeping & janitorial rooms.
 - EMS & fire facilities, emergency vehicles, ambulance(s), ambulance equipment/surfaces, carts, gurneys, stretchers, police cars.
 - Day care centers and nurseries, sick rooms, kindergartens, and preschools.
 - Acute care institutions, alternate care institutions, home healthcare institutions.
 - Life care retirement communities.
 - Restaurants, restaurants and bars, bars, cafeterias, institutional kitchens, fast food operations and food storage areas.
 - Supermarkets, convenience stores, retail and wholesale establishments, department stores, shopping malls, gift shops, video stores, bookstores, dressing rooms and laundries, photocopy centers, bicycle shops, auto repair centers.
 - Computer manufacturing sites, toy factories.
 - Food establishments, coffee shops, donut shops, bagel stores, pizza parlors, liquor stores.
 - Crime scenes and funeral homes, mortuaries, burial vaults, mausoleums, autopsy rooms.
 - Police stations, courthouses, correctional facilities, jails, prisons, municipal government buildings, penitentiaries, correctional institutions, bus stations, train stations.
 - Institutional facilities, laboratories, factories, business and office buildings, restrooms, hotels and motels, and transportation terminals.
 - Public restrooms, public facilities, waysides, travel rest areas, shower rooms, shower stalls, bathrooms.
 - Hotel, motels, dormitories.
 - Kitchens, bathrooms and other household areas.
 - Homes (households), condos, apartments, vacation cottages, summer homes.
 - Institutions, schools and colleges, churches, classrooms, community colleges, universities, athletic facilities and locker rooms, exercise rooms, exercise facilities, gyms, gymnasiums, fieldhouses.
 - Cosmetic manufacturing facilities, medical device manufacturing facilities, biotechnology firms, pharmaceutical manufacturing facilities, warehouses.
 - Heath clubs, spas, tanning spas/beds, footbath surfaces, massage/facial salons, hair/nail/pedicure salons, barber/beauty shops, salons, tattoo parlors.
 - Museums, art galleries, post offices, performance/theater centers, banks, libraries, movie houses, bowling alleys.
 - Recycling centers.
 - Humidifier water tanks.
 - Campgrounds, playgrounds, recreational facilities, picnic facilities, sports arenas, sports complexes.
 - Food processing plants, USDA inspected food-processing facilities, dairy farms, hog farms, equine farms, poultry and turkey farms and egg processing plants, meat/poultry processing plants, meat/poultry producing establishments, mushroom farms, rendering plants, canneries, caterers, bakeries.
 - Processing facilities for Fish, Milk, Citrus, Fruit, Vegetable, Ice Cream, and Potatoes and beverage plants.
 - Tobacco plant premises and equipment.
 - Veterinary clinics, animal life science laboratories, animal research centers, animal quarantine areas, animal breeding facilities, kennels, dog/cat animal kennels, breeding and grooming establishments, pet animal quarters, zoos, pet shops, tack shops and other animal care facilities.
 - Farmhouses, barns, sheds, tool sheds, barns, cattle barns, swine barns, sheep barns, horse barns, brooder houses.
 - Household and automotive garages, boats, ships, barges, campers, trailers, mobile homes, cars, trucks, delivery trucks, boxcars, buses, trains, taxis, helicopters and airplanes.
 - Cruise lines, cruise ships, airline terminals, airports, shipping terminals, public transportation.
 - Commercial florist and flower shops.
 - Basements, cellars, bedrooms, attics, living rooms and porches.
 - Crypton barrier fabric
- This product may be used on washable hard non-porous surfaces such as:
- Food preparation and storage areas.
 - Counters (countertops), stoves (stovetops), sinks (bathroom, kitchen), tub surfaces, non-food contact surfaces of Slurppy® machines, and exterior surfaces of appliances, refrigerators, and ice machines.
 - Glass, metal, stainless steel, glazed porcelain, glazed ceramic, granite, marble, plastic, (such as polystyrene or polypropylene), sealed limestone, sealed slate, sealed stone, sealed terra cotta, sealed terrazzo, chrome and vinyl.
 - Enameled surfaces, painted woodwork (finished), Formica®, vinyl and plastic upholstery.

- Foundations, steps, plumbing fixtures, finished baseboards and windowsills.
- Tables, chairs, desks, bed frames, lifts, washable walls, cabinets, doorknobs and garbage cans, cuspidors and spittoons.
- Exhaust fans, refrigerated storage and display equipment, coils and drain pans of air conditioning and refrigeration equipment and heat pumps.
- Hatchers, setters, trays, racks, egg flats, walls, floors, ceilings, chick boxes, egg cases, vans and trash containers, seed houses.
- Large, inflatable, non-porous plastic and rubber structures: animals, promotional items, moonwalks, slides, obstacle course play and exercise equipment.
- Hard, non-porous surfaces of picnic tables and outdoor furniture.
- Telephones and Telephone booths.
- Highchairs.
- Drinking fountains.
- Shower stalls, shower doors and curtains, bathtubs and glazed tiles, chrome plated intakes, toilets, toilet seats, toilet bowls, toilet bowl surfaces, urinals, empty diaper pails, portable and chemical toilets and latrine buckets, glazed porcelain, glazed tile and restroom fixtures.
- Ultrasonic baths, whirlpools, whirlpool bathtubs.
- Kennels, kennel runs, kennel/cages floors, conductive flooring.

General

This product is a phosphate free formulation designed to provide effective cleaning, deodorizing and disinfection in areas where housekeeping is of prime importance in controlling the hazard of cross contamination on treated surfaces.

This product delivers non-acid disinfection performance in an economical concentrate.

This product is an economical concentrate that can be used with a mop and bucket, trigger sprayers, sponge or by soaking.

This product may be applied through low-pressure sprayers, and fogging (wet misting) systems.

This product is a complete, chemically balanced disinfectant(/sanitizer) that provides clear use solutions even in the presence of hard water.

This product is a no rinse disinfectant cleaner that disinfects, cleans and deodorizes in one labor saving step.

Controls the growth of odor-causing and slime-forming bacteria used in waterbed uses. Prevents bubbles, preserves plasticizers, conditions vinyl interior, sequesters minerals.

Household

This product is for use in kitchens, bathrooms, and other household areas.

This product is a multi-surface cleaner, deodorizer and disinfectant. Use on windows, mirrors, and other non-food contact glass surfaces.

Great for use in the bathroom, on floors and in other household areas. Eliminates odors. Deodorizes. Will not harm most surfaces.

Cleans everyday kitchen messes like dirt, grease and food stains. Cuts through tough grease and grime.

Disinfects and sanitizes kitchen surfaces, bathroom surfaces and floors. Sanitizes non-food contact kitchen surfaces, bathroom surfaces and floors.

Kills common kitchen/bathroom bacteria and viruses*.

Hospitals

This product is a one-step disinfectant that is effective against a broad spectrum of bacteria, is virucidal* (including HIV-1, HCV & HBV) and inhibits the growth of mold and mildew and their odors when used as directed.

Use this product to clean, sanitize and disinfectant non-porous ambulance equipment and surfaces by rinsing all equipment that comes in prolonged contact with skin before reuse with clean warm water (about 120°F), and allow to air dry. (Precaution: Cleaning at 120°F temperature will avoid overheating and distortion of the ambulance equipment and surfaces that would necessitate replacement.)

Will not cause swelling of transducer membrane or harm compressor plates.

This product is a versatile sanitizer and broad-spectrum disinfectant formulated for use in ultrasonic baths.

This product is a versatile cleaner, sanitizer and broad-spectrum disinfectant formulated for use on bath and therapy equipment (whirlpools).

This product meets AOAC Use – Dilution Test Standards for hospital disinfectants at 400 ppm water hardness.

This product has passed the Virucidal Efficacy of a Disinfectant for Use on Inanimate Environmental Surfaces Utilizing Hepatitis B Virus and Human and canine Coronavirus.

This product has passed the Virucidal Effectiveness Test using Bovine viral diarrhea virus (BVDV) (Surrogate for human Hepatitis C virus).

For larger areas such as operating rooms and patient care facilities, this product is designed to provide both general cleaning and disinfection.

This product is a disinfectant and non-food contact sanitizer for Hospital Pharmacy Compounding, Cleanroom, and Laboratory areas to disinfect washable, hard, non-porous surfaces such as: Laminar-airflow equipment and BioSafety Cabinet work surfaces and exterior surfaces including countertops, sinks, plumbing fixture surfaces, incubators, refrigerators and centrifuge surfaces of metal, stainless steel, glass, plastic (such as polystyrene or polypropylene), Formica®, and vinyl.

Restrooms

This product will not leave a grit or soap scum.

This product is for non-scratch cleaning of showers and tubs, shower doors and curtains, fixtures and toilet bowls.

Kills Athlete's Foot fungus on bathroom surfaces.

Animal Premise

This product cleans by removing dirt, grime, blood, urine, fecal matter and other common soils found in animal housing facilities, livestock, swine and poultry facilities, grooming facilities, farms, kennels, pet stores, veterinary clinics, laboratories or other small animal facilities. It also eliminates odors leaving surfaces smelling clean and fresh.

This product can be used to disinfect, clean and deodorize terrarium and small animal cages, hot rock, substrate and cage furniture (plastic terrarium ornaments, driftwood, heat caves and water dishes).

This product has passed the Virucidal Efficacy of a Disinfectant for Use on Inanimate Environmental Surfaces Utilizing Canine Coronavirus.

This product is for Poultry Premise Sanitation (Hatcheries):

Egg Receiving Area	Tray Dumping Area	Chick Processing Area
Egg Holding Area	Chick Holding Area	Chick Loading Area
Setter Room	Hatchery Room	Poultry Buildings

This product is for Swine Premise Sanitation:

Farrowing Barns and Areas	Dressing Plants	Blocks
Waterers and Feeders	Loading Equipment	Creep Area
Hauling Equipment	Nursery	Chutes

Food Contact Surfaces

This product is for use as a disinfectant on hard, non-porous surfaces. A potable water rinse is required after application on food contact surfaces.

Escherichia coli (*E. coli*), *Salmonella enterica* (*Salmonella*), and *Staphylococcus aureus* (*Staph*) are common germs found where food is prepared and stored. This product kills these bacteria and helps prevent the spread of food borne contamination on treated kitchen surfaces listed on this label. This product is not for use on dishes, glassware or eating utensils.

Deodorizing

This product cleans, shines, deodorizes and disinfects all hard non-porous surfaces listed on the label. It inhibits the growth of mold and mildew, leaving bathrooms and kitchens clean and fresh smelling.

When used as directed, this product will deodorize surfaces in restroom and toilet areas, behind and under sinks and counters, garbage cans and garbage storage areas, and other places where bacterial growth can cause malodors.

This product inhibits bacterial growth on moist surfaces and deodorizes by killing microorganisms that cause offensive odors. *(Not for use in California.)*

This product is for use in household and commercial humidifiers. Use of this product will control unpleasant odors.

This product is specially formulated to effectively eliminate offensive odors caused by mold and mildew.

This product is effective against household bacteria and odors caused by animal waste, septic tank or sewage backup, smoke and bathroom and kitchen odors.

This product is effective at controlling mold and mildew on shower curtains.

This product may be used in work areas such as tool rooms and garages for odor control and light duty cleaning.

This product provides long lasting freshness against tough odors such as odors from litter boxes and pet accidents

Eliminates odors caused by bacteria and mildew and non-fresh foods. Kills odor causing bacteria in the kitchen and bathroom.

Other

Use this product to disinfect/sanitize non-porous salon/barber tools and instruments such as combs, clippers, brushes, trimmers, razors, scissors, blades, tweezers, and manicure/pedicure instruments.

Use this product to disinfect non-porous footbath surfaces.

This product provides effective cleaning strength that will not dull most metal-interlock floor finishes, and does not require a rinse prior to recoat.

Use this product to clean, sanitize and disinfectant non-porous personal protective safety equipment, protective headgear, athletic helmets, wrestling/boxing headgear, athletic shoe soles, hard hats, half mask respirators, full face breathing apparatus, gas masks, goggles, spectacles, face shields, hearing protectors and ear muffs. Rinse all equipment that comes in prolonged contact with skin before reuse with clean warm water (about 120°F), and allow to air dry. (Precaution: Cleaning at 120°F temperature will avoid overheating and distortion of the personal safety equipment that would necessitate replacement.)

This product is an effective antimicrobial cleaner, designed for use by wholesale and retail florists, shippers and green houses.

When used as directed, this product will disinfect hard, non-porous surfaces, such as flower buckets, floors and walls of coolers, design and packing benches, and countertops.

This product may be relied on to deodorize coolers, buckets, garbage pails and other areas where obnoxious odors may develop.

Use this product to clean, disinfect and deodorize flower buckets, walls, floors of coolers, shippers, greenhouse packing areas, garbage pails and other areas where obnoxious odors may develop.

This product may be used as a general purpose antimicrobial detergent in florist shops, wholesale florist, shippers, green house packing areas and other commercial floriculture places for efficient cleaning and

antimicrobial action against certain bacteria which cause: (Not for use in California.)

1. Plugging of stems with slime, which reduces uptake of water for various flowers including roses, chrysanthemums, gladioli and tulips.
2. Production of ethylene gas, which may injure blooms of the various sensitive flowers including carnations, snapdragons, some orchids, baby's breath, sweet peas, freesia and alstroemeria.

This product is effective against Citrus Canker and Bacterial Spot of Tomatoes through the treatment of the handling, harvesting, storage and transportation equipment. (Not for use in California.)

Kill avian influenza A on pre-cleaned environmental surfaces.

This product is effective against the control of small flies on non-food contact surfaces such as floors, walls, drains, countertops, metal surfaces, painted surfaces, glazed porcelain, glazed tile, glass, chrome, rubber, and plastic in restaurants, kitchens, dishwashing areas, and bar and wait station areas.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Apply this product with a cloth, mop or mechanical spray device. When applied with a mechanical spray device, surfaces must be sprayed until thoroughly wetted. Treated surfaces must remain wet for 10 minutes. For sprayer applications, use a coarse pump or trigger sprayer. Spray 6-8 inches from surface and rub with brush, sponge or cloth. Do not breathe spray.

Note: With spray applications cover or remove all food products. Prepare a fresh solution at least daily or when visibly soiled or diluted. For heavily soiled areas, a preliminary cleaning is required.

DISINFECTION/FUNGICIDAL DIRECTIONS

Dilution Chart:

For Hospital or Medical Environment claims	2 oz/1 gal. water
For General or Broad Spectrum claims	1¼/1 gal. water
For Virucidal claims	1¼ - 2 oz/1 gal. water
For Animal Virucidal claims	1¼ - 2 oz/1 gal. water
For Non-Food Contact Sanitizing claims	1 oz/2 ¾ gal. water
For Fungicidal claims	2 oz/1 gal. water
For Mold and Mildew claims	1¼ oz./1 gal. water

PREPARATION OF USE SOLUTION: For water hardness up to 400 ppm add 2 ounces of this product per gallon (16 milliliters per liter) of water (1:64) (or equivalent use dilution) to disinfect hard non-porous surfaces. Treated surfaces must remain wet for 10 minutes.

This product is bactericidal according to the AOAC Use Dilution Test method on hard inanimate surfaces modified in the presence of 5% organic serum against:

Burkholderia cepacia
Campylobacter jejuni
Corynebacterium ammoniagenes
Enterobacter aerogenes

Enterobacteriaceae (with extended beta-lactamase resistance)

Enterobacter cloacae

Enterococcus faecalis

Enterococcus faecium (Vancomycin resistant)

Escherichia coli

Escherichia coli (Antibiotic resistant)

Escherichia coli 0157:H7

Klebsiella pneumoniae

Klebsiella pneumoniae (Antibiotic resistant)

Legionella pneumophila

Listeria monocytogenes

Proteus mirabilis

Proteus vulgaris

Pseudomonas aeruginosa

Pseudomonas aeruginosa (Antibiotic resistant)

Salmonella enterica

Salmonella schottmuelleri (ATCC 8759)

Salmonella typhi

Serratia marcescens

Shigella dysenteriae

Shigella flexneri

Shigella sonnei

Staphylococcus aureus

Staphylococcus aureus (Methicillin resistant)

Staphylococcus epidermidis (Antibiotic resistant)

Streptococcus pyogenes

Vibrio cholerae

Xanthomonas axonopodis pv. *Citri* (Not for use in California)

Xanthomonas campestris pv. *Vesicatoria* (Not for use in California)

FUNGICIDAL AGAINST:

Candida albicans

Trichophyton mentagrophytes

***VIRUCIDAL PERFORMANCE:** At 1¼ ounces per gallon of water use level (or equivalent use dilution), treated surfaces must remain wet for ten minutes. For heavily soiled areas, a preliminary cleaning is required. Prepare a fresh solution at least daily or more often if solution becomes diluted or soiled.

This product was evaluated and found to be effective in the presence of 5% blood serum against the following viruses on hard non-porous surfaces:

Avian influenza A/Turkey/Wisconsin

Herpes Simplex Type1

Herpes Simplex Type2

HIV-1 (AIDS virus)

Influenza A/Brazil Virus

Vaccinia virus

At 2 ounces per gallon of water use level (or equivalent use dilution), with treated surfaces remaining wet for 10 minutes, this product was evaluated and found to be effective in against the following viruses on hard non-porous surfaces:

Hantavirus

Hepatitis B Virus (HBV)

Hepatitis C Virus (HCV)

Human Coronavirus
Respiratory syncytial virus

DISINFECTION DIRECTIONS: Apply use solution to hard inanimate, non-porous surfaces thoroughly wetting surfaces as recommended and required, with a cloth, mop, sponge or sprayer. For heavily soiled areas, a preliminary cleaning is required. For sprayer applications use a coarse spray device. Spray 6-8 inches from surface. Rub with brush, sponge or cloth. Do not breathe spray.

FOR SCHOOLS, INDUSTRY AND NON-MEDICAL INSTITUTIONAL USES: At 1¼ ounces per gallon of water (or equivalent use dilution), this product delivers cleaning and germicidal effectiveness. Treated surfaces must remain wet for 10 minutes, then allow to air dry or wipe. For heavily soiled areas, a preliminary cleaning is required. Prepare a fresh solution at least daily or more often if solution becomes diluted or soiled. It is effective against *Staphylococcus aureus*, *Salmonella enterica*, *Escherichia coli* and *Serratia marcescens*. The same AOAC tests used to confirm performance for hospitals were used.

FOR DISINFECTING HARD, NON-POROUS SURFACES AGAINST AVIAN INFLUENZA: For hospital/medical/health facilities, the directions for use for hospital disinfection must be followed. For all other use sites, general Virucidal* directions must be followed.

General Disinfection Use Dilution Chart

Ounces of Product	Amount of Water
0.3125 ounces	1 quart
0.625 ounces	½ gallon
1¼ ounces	1 gallon
3.125 ounces	2½ gallons
6¼ ounces	5 gallons
12½ ounces	10 gallons

Hospital Disinfection Use Dilution Chart

Ounces of Product	Amount of Water
½ ounce	1 quart
1 ounce	½ Gallon
2 ounces	1 gallon
5 ounces	2½ gallons
10 ounces	5 gallons
20 ounces	10 gallons

HOSPITAL/HEALTH CARE

This product is not for use on Medical device surfaces.

This product is a Hospital Use Disinfectant at 2 ounces per gallon (16 milliliters per liter) (1:64 dilution) modified in the presence of 400 ppm hard water.

HOSPITALS, DENTAL OFFICES, NURSING HOMES AND OTHER HEALTH CARE INSTITUTIONS: For disinfecting floors, walls, countertops, bathing areas, lavatories, bed frames, tables, chairs, garbage pails and other hard, non-porous surfaces.

At 1¼ ounce per gallon of water (or equivalent use dilution) in the presence of 5% blood serum and 400 ppm of hardness for a 2-minute contact time, this

product was found to be effective against HIV-1 (AIDS Virus).

At 2 ounces per gallon (or equivalent use dilution) in the presence of 400 ppm hard water (CaCO₃) and 100% serum, this product was proven to be effective against Hepatitis B Virus with a contact time of 10 minutes.

At 2 ounces per gallon (or equivalent use dilution) in the presence of 400 ppm hard water (CaCO₃) and 5% organic load, this product was proven to be effective against Bovine viral diarrhea virus (BVDV) (Surrogate for human Hepatitis C virus) with a contact time of 10 minutes.

***KILLS HBV, HCV and HIV ON PRECLEANED ENVIRONMENTAL SURFACES / OBJECTS PREVIOUSLY SOILED WITH BLOOD / BODY FLUIDS** in health care setting or other settings in which there is an expected likelihood of soiling of inanimate surfaces/objects with blood or body fluids and in which the surfaces/objects likely to be soiled with blood or body fluids can be associated with the potential for transmission of Hepatitis B Virus (HBV), human immunodeficiency virus Type 1 (HIV-1) (associated with AIDS), and Hepatitis C Virus (HCV).

SPECIAL INSTRUCTIONS FOR CLEANING AND DECONTAMINATION AGAINST HBV, HCV AND HIV-1 ON SURFACES / OBJECTS SOILED WITH BLOOD/BODY FLUIDS.

Personal Protection: Specific barrier protection items to be used when handling items soiled with blood or body fluids are disposable latex gloves, gowns, masks or eye coverings.

Cleaning Procedure: Blood and other body fluids (containing HIV-1, HBV & HCV) must be thoroughly cleaned from surfaces and objects before application of this product.

Disposal of Infectious Materials: Blood, body fluids, cleaning materials and clothing must be autoclaved and disposed of according to federal, state and local regulations for infectious waste disposal.

Contact Time: Leave surface wet for 2 minutes and 10 minutes for HIV-1 and HBV, respectively. This 2-minute contact time will not control other common type of viruses and bacteria listed on this label. For HCV, leave surface wet for 10 minutes.

Efficacy tests have demonstrated that this product is an effective bactericide, virucide and fungicide in the presence of organic soil (5% blood serum).

SURGICAL INSTRUMENT PRESOAK: Add 2 ounces of this product to 1 gallon of water (or equivalent use dilution). Place pre-cleaned instruments in solution to presoak surgical instruments for a minimum of 10 minutes, then proceed with normal sterilization procedure.

Note: Plastics may remain immersed until ready to use. Instruments must be removed after 10 minutes, rinsed, dried, and kept in a clean non-contaminated receptacle.

Prolonged soaking may cause damage to metal instruments.

ULTRASONIC BATH DISINFECTANT/FUNGICIDE

DIRECTIONS: Use this product to disinfect hard (inanimate) non-porous non-critical objects compatible with Ultrasonic cleaning units. Pour a fresh solution of 2 ounces of this product per gallon of water (or equivalent use dilution) (1:64) directly into bath chamber. Pre-clean heavily soiled objects. Place objects into unit and operate for a minimum of 10 minutes, according to the manufacturer's use directions. Remove objects and wash with sterile water or allow to air dry. Prepare fresh solution for each use.

DISINFECTION/FUNGICIDE OF HARD NON-POROUS SURFACES IN WHIRLPOOL UNITS:

After using the whirlpool unit, drain and refill with fresh water to just cover the intake valve. Add 2 ounces of this product for each gallon of fresh water added (or equivalent use dilution). Briefly start the pump to circulate the solution. Turn off the pump. Wash down the unit sides, seat of the chair lift and any/all related equipment with a clean swab, brush or sponge. Treated surfaces must remain wet for 10 minutes. After the unit has been thoroughly disinfected, drain the solution from the unit and rinse any/all cleaned surfaces with fresh water. Repeat for heavy soiled units.

FOR DISINFECTING/FUNGICIDE HARD, NON-POROUS (FIBERGLASS) BATH AND THERAPY EQUIPMENT:

To remove body oils, dead tissue, soil and all other buildups or organic matter on inanimate surfaces after using the unit, drain the water and refill with fresh water to just cover the intake valve. Add 10 ounces of this product for each 5 gallons of water (2 ounces per one gallon) (or equivalent use dilution) in the unit at this point. Briefly start the pump to circulate the solution. Turn off pump. Wash down the unit sides, seat of the chair lift, and any/all related equipment with a clean swab, brush or sponge. Product to surface contact time must be at least 10 minutes for proper disinfection. After the unit has been thoroughly disinfected, drain solution from the unit and rinse any/all cleaned surfaces with fresh water. The unit is ready for reuse.

SANITIZATION OF HARD, NON-POROUS SURFACES IN WHIRLPOOL UNITS:

After using the whirlpool unit, drain. Add 1 oz per 2½ gallons of water (or equivalent use dilution) solution to just cover the intake valve. Briefly start the pump to circulate the solution. Turn off the pump. Wash down the unit sides, seat of the chair, lift and any/all related equipment with a clean swab, brush or sponge. Treated surfaces must remain wet for 5 minutes. After the unit has been thoroughly sanitized, drain the solution from the unit and rinse any/all cleaned surfaces with fresh water. Repeat for heavy soiled units.

ULTRASONIC BATH SANITIZING DIRECTIONS: Use this product to sanitize hard (inanimate) nonporous non-critical objects compatible with Ultrasonic cleaning units. Pour fresh solution of 1 ounce per 2½ gallons of water (or equivalent use dilution) directly into bath chamber.

Pre-clean soiled objects. Place objects into unit and operate for a minimum of 1 minute, according to manufacturers use directions. Remove objects and rinse with sterile water (sterile water for injection), or allow to air dry. Replace solution at least daily or when solution becomes visible dirty or discolored.

Note: This product in its use solution is compatible with stainless steel, aluminum and most other surfaces. Before product use, it is recommended that you apply product to a smaller test area to determine compatibility before proceeding with its use.

DEODORIZATION / MOLD & MILDEW

FUNGICIDAL ACTIVITY: At 2 ounces per gallon use-level (or equivalent use dilution), this product is effective in locker rooms, dressing rooms, shower and bath areas and exercise facilities against *Trichophyton mentagrophytes* (athlete's foot fungus, a cause of ringworm), and *Candida albicans* on inanimate hard non-porous surfaces in the presence of 5% blood serum and 400 ppm water hardness as CaCO₃. Treated surface must remain wet for 10 minutes. Allow to air dry.

MOLD AND MILDEW CONTROL DIRECTIONS: Add 1¼ ounces per gallon (10 milliliters per liter) (or equivalent use dilution) of water to control the growth of mold and mildew (*Aspergillus niger*) and their odors on hard, non-porous surfaces. Thoroughly wet all treated surfaces completely. Let air dry. Repeat application weekly or when growth or odor reappear.

GENERAL DEODORIZATION: To deodorize, add 1¼ ounce of this product to 1 gallon of water (or equivalent use dilution). Excess material must be wiped up or allowed to air dry.

CLEANING/DEODORIZING DIRECTIONS: Add 1¼ ounce per gallon of water (or equivalent use dilution) to clean and deodorize windows, mirrors and non-food contact glass surfaces. Apply solution with a mop, cloth, sponge or coarse spray device so as to wet all surfaces thoroughly. Spray 6-8 inches from surface. Rub with sponge or cloth. Do not breathe spray. Allow to air dry or wipe up excess liquid.

FOR DEODORIZING GARBAGE CANS, GARBAGE TRUCKS, INDUSTRIAL WASTE RECEPTACLES AND GARBAGE HANDLING EQUIPMENT:

It is especially important to preclean for the product to perform properly. Use 1¼ ounce per gallon (or equivalent use dilution) of this product or other suitable detergent system for pre-cleaning step. Then, apply a wetting concentration of 6 ounces of this product per gallon of water (or equivalent use dilution).

GLASS CLEANING/DEODORIZING DIRECTIONS: Use 1¼ ounce per gallon solution (or equivalent use dilution) to clean and deodorize windows, mirrors, and glass surfaces. Use a coarse spray device. Spray 6-8 inches from surface. Rub with sponge or cloth. Do not breathe spray.

FOR DEODORIZING SEPTIC STORAGE TANKS: When tanks are empty, pour 1¼ oz. per gallon of water

(or equivalent use dilution) into septic storage tank on recreational vehicles, campers and boats to control the bacteria that can cause odors. As tank fills with sewage and the vehicle is moving, this disinfectant

AIR FRESHENER/AUTOMOTIVE USES: 1¼ oz. per gallon of water (or equivalent use dilution) will effectively neutralize damp musty odors caused by mildew in storage areas, basements, closets, bathrooms and A/C filters. Effective on smoking and cooking odors (garlic, fish, onions, etc.), automobile odors from tobacco, musty carpet smell, and beverage smells will be eliminated. Spray or apply onto seats, carpets, headliner and ashtray or into trunk and all vents to eliminate odors from tobacco, beverage spills and musty carpet. For sprayer applications, use a coarse spray device. Allow to air dry.

FOR ODORS CAUSED BY DOGS, CATS AND OTHER DOMESTIC ANIMALS: Use on rugs, floors, walls, tile, cages, crates, mats, litter boxes, floor coverings, or any surface soiled by a pet. Test a small inconspicuous area first. Blot problem area. Then follow directions for "General Deodorization".

TO CONTROL THE GROWTH OF MOLD AND MILDEW ON LARGE INFLATABLE NON-POROUS PLASTIC AND RUBBER STRUCTURES AND ON NON-POROUS ATHLETIC EQUIPMENT (animals, promotional items, moonwalks, slides, obstacle course play and exercise equipment, wrestling and gymnastic mats, athletic training tables, physical therapy tables, athletic helmets, wrestling/boxing headgear, athletic shoe soles): Thoroughly clean all surfaces with soap or detergent and rinse with water. Saturate surfaces with a use solution of 1¼ ounces per gallon of water (or equivalent dilution) for a period of 10 minutes. Ventilate buildings and other closed spaces. Do not employ/use equipment until treatment has been absorbed, set or dried.

HUMIDIFIER DIRECTIONS: Thoroughly clean water tank and filters. Add 2 ounces of this product per gallon (or equivalent use dilution) of refill water. Not for use in heat or atomizing type humidifiers.

WATER/SMOKE DAMAGE RESTORATION

(Not Applicable in California)

Effective against odor causing bacteria and fungi for home, institutional, industrial and hospital use. This product is particularly suitable for use in water damage restoration situations against odor causing bacteria on the following porous and semi-porous materials: carpets, carpet cushion, sub floors, drywall, trim, and frame lumber, tackless strip and paneling. Using solutions recommended, saturate affected materials with enough product to remain wet for at least 10 minutes. Use proper ventilation.

SEWER BACKUP & RIVER FLOODING: During mitigation procedures, dilute 2 to 4 ounces of this product per gallon of water allowing for the diluting effect of absorbed water within saturated materials. Remove gross filth or heavy soil along with non-salvageable materials. Saturate all affected areas with a sprayer

using a coarse spray tip, before and after cleaning and extraction.

CARPETS, CARPET CUSHIONS AND OTHER POROUS MATERIALS SUCH AS SUB FLOORS, DRYWALL, TRIM AND FRAME LUMBER, TACKLESS STRIP AND PANELING: For water damage from a clean water source, extract excess water. Test hidden area for colorfastness. Dilute 2 to 4 ounces of the product per gallon of water, allowing for the diluting effect of absorbed water within saturated materials. Remove gross filth or heavy soil. Apply directly with a sprayer using a coarse spray tip, to fully saturate affected materials. Roll, brush or agitate into materials and allow the materials to remain damp for 10 minutes. Follow with a thorough extraction. Dry rapidly and thoroughly.

SPECIAL INSTRUCTIONS FOR CLEANING CARPET AGAINST ODOR CAUSING BACTERIA: This product may be used in industrial and institutional areas such as homes, motels & hotel chains, nursing homes, schools and hospital. For use on wet cleanable synthetic fibers. Do not use on wool. Vacuum carpet thoroughly prior to cleaning. Test fabric for color fastness.

For portable extraction units: Mix 2 ounces of this product per gallon of water (or equivalent use dilution).

For truck mounted extraction machines: Mix 24 ounces of the product per gallon of water and meter at 4 gallons per hour.

For rotary floor machines: Mix 4 ounces of this product per gallon of water and apply at the rate of 300-500 sq. ft. per gallon.

Do not mix this product with other cleaning products. Follow the cleaning procedures specified by the manufacturer of the cleaning equipment. After using this product, set the carpet pile and protect the carpet from furniture legs and bases while drying. Do not over wet. If applied to stain resistant nylon carpet, apply a fabric protector according to the carpet manufacturer's directions.

CARPET SANITIZER/DEODORIZER AGAINST ODOR-CAUSING BACTERIA FOR HOME, INSTITUTIONAL, INDUSTRIAL AND HOSPITAL USE

(Use as carpet sanitizer not allowed in California.)

This product sanitizes/deodorizes the carpet by controlling/reducing the growth of odor-causing bacteria. It can be used in industrial and institutional areas such as homes, motels, hotels chains, nursing homes and hospitals.

Vacuum carpet thoroughly prior to application. Mix 2 ounces of product per gallon of water (or equivalent use dilution). Follow the injection and/or extraction procedures as specified for any conventional steam cleaning equipment you are using. For rotary floor machines, mix 16 ounces per gallon of water and spray on carpet at a rate of 300-500 sq. ft. per gallon.

For use on washable synthetic fibers. Do not use on wool. Test color fastness of carpet before use. Apply

diluted product to a small concealed spot, then rub with a clean white cloth. If color changes or transfers to cloth, a water-based product should not be used.

After using the product, set carpet pile in one direction with a stiff brush. Place aluminum foil under the legs of furniture while carpet is drying. Over-wetting can cause carpet to shrink. Manufacturer assumes no responsibility for over-wetting misuse.

Note: This product should not be mixed with other cleaning products.

BARBER/SALON

DISINFECTION / FUNGICIDE/VIRUCIDE FOR BARBER/SALON TOOLS DIRECTIONS: Immerse pre-cleaned barber/salon tools (such as combs, brushes, razors manicure/pedicure tools, clippers, tweezers, clipper and trimmer blades, and scissors) in 2 ounces per gallon solution (or equivalent use dilution) of the product. Completely immerse instruments and tools for at least 10 minutes. Rinse thoroughly and dry before use. Prepare a fresh solution at least daily or more often if solution becomes cloudy or soiled.

Note: Plastics may remain immersed until ready to use. Stainless steel shears and instruments must be removed after 5 minutes, rinsed, dried, and kept in a clean non-contaminated receptacle. Prolonged soaking may cause damage to metal instruments.

DISINFECTING/FUNGICIDE/VIRUCIDE GROOMING CLIPPERS: Turn the clipper off occasionally during use and spray between the teeth of blades a solution of 2 ounces per gallon (or equivalent use dilution). Allow surface to remain wet for at least 10 minutes. Remove hair, dandruff and dust particles prior to disinfecting the blades.

CLEANING HAIR CLIPPERS AND ELECTRIC SHEARS: While clipper/shear is running, hold in the downward position and spray 1¼ ounces per gallon of water solution (or equivalent use dilution) of this product directly onto the blades two or three times to thoroughly wet the blades. Do not spray on the clipper case or drip into clipper housing. Turn off clipper/shear. Allow surface to remain wet for at least 10 minutes. Then wipe dry with a clean soft cloth. Lubricate as per clipper/shear manufacturer's instructions.

CLEANING BARBER/SALON SHEARS AND OTHER IMPLEMENTS: Spray shear/implement until thoroughly wet. Wipe away visible debris using a soft bristle brush or cloth. Immerse pre-cleaned shear/implement into a container of 1¼ ounce per gallon of water solution (or equivalent use dilution) of this product for at least 10 minutes. Remove shear/implement and wipe dry. No rinsing is necessary. Use fresh solution at least daily or when immersion tank solution becomes diluted or visibly soiled.

DISINFECTION/FUNGICIDE/VIRUCIDE OF HARD, NON-POROUS SURFACES IN FOOTBATHS: To remove body oils, dead tissue, soil and all other buildups or organic matter on inanimate surfaces after using the

footbath, drain the water and thoroughly clean all hard, non-porous surfaces with soap or detergent, then rinse with water. Saturate surfaces with a use solution of 2 oz per gallon of water (or equivalent use dilution) to exposed surfaces with a cloth, mop, sponge or sprayer. Brush or swab thoroughly and allow solution to stand for 10 minutes. For spray applications, use a coarse spray device. Do not breathe spray. After the unit has been thoroughly disinfected, rinse all cleaned surfaces with fresh water. Do not use equipment until treatment has been absorbed, set or dried.

RESTROOM/BATHROOM

PUBLIC RESTROOMS

This product is a one-step cleaner and deodorant designed for general cleaning, disinfecting, deodorizing and controlling mold and mildew on hard, non-porous environmental surfaces.

This product cleans, disinfects and deodorizes surfaces by killing odor causing microorganisms and mold and mildew. Its non-abrasive formula is designed for use on: glazed ceramic tile, glazed porcelain, chrome, stainless steel and plastic surfaces associated with floors, walls, fixtures, toilets, urinals, sinks, shower rooms, and locker rooms.

NON-ACID TOILET BOWL AND URINAL DISINFECTION/CLEANER DIRECTIONS

Remove gross filth prior to disinfection.

From Concentrate: Add 1½ ounce to the toilet bowl (0.75 gallons) and mix. Brush thoroughly over exposed surfaces and under the rim with a cloth, mop, or sponge. Allow to stand for 10 minutes and flush. For sprayer application, use a coarse spray device.

From Use solution: Empty toilet bowl or urinal and apply 2 ounces per gallon (16 milliliters per liter) (or equivalent use dilution) use solution to exposed surfaces including under the rim with a cloth, mop, sponge or sprayer. Brush or swab thoroughly and allow to stand for 10 minutes and flush. For sprayer application, use a coarse spray device.

FOR HEAVY DUTY CLEANING: Empty toilet bowl or urinal and apply 8 ounces per gallon (64 milliliters per liter) use solution to exposed surfaces including under the rim with a cloth, mop, sponge or sprayer. Brush or swab thoroughly and allow to stand for 10 minutes and flush. For sprayer application, use a coarse spray device.

FOR USE TO CLEAN AND DISINFECT SHOWER ROOMS, LOCKER ROOMS AND OTHER LARGE OPEN AREAS WITH FLOOR DRAINS:

1. Pre-clean heavily soiled areas.
2. Apply use solution of 1¼ ounces per gallon of water to floors, walls and ceilings making sure not to over spray. To disinfect, all surfaces must remain wet for 10 minutes.
3. Scrub using deck brush or other coarse material as necessary.
4. Rinse surfaces thoroughly and let air dry.

RV HOLDING TANKS/RECREATIONAL VEHICLES:

For toilet waste and holding tanks, cover bottom of holding tank with water and 1¼ to 2 ounces per gallon of water (or equivalent use dilution) to deodorize. If odors return before time to empty, add 1¼ to 2 ounces to the tank. For kitchen waste, add 1¼ to 2 ounces to gray water tank as needed to control malodors created by dirty dishwater.

FOOD PROCESSING PREMISES

Before using this product, food products and packaging materials must be removed from the room or carefully protected. After use, all surfaces in the area must be thoroughly rinsed with potable water.

DIRECTIONS FOR FOOD PROCESSING PLANTS: For use on non-food contact surfaces such as floors, walls, tables, garbage cans and disposal areas. Before using this product, food products and packaging materials must be removed from the room or carefully protected. Follow Disinfection directions.

DIRECTIONS FOR FOOD STORAGE AREAS: For use on non-food contact surfaces such as shelves, floors, walls and tables. Before using this product, food products and packaging materials must be removed from the room or carefully protected. Then follow Disinfection directions.

FOR USE AS A CLEANER/DISINFECTANT IN FOOD PROCESSING PLANTS:

1. Before using this product in food processing areas, food products and packaging materials must be removed from the room or carefully protected.
2. Apply 1¼ oz per gallon of water (or equivalent use dilution) solution evenly over surface using a cloth, mop, sponge or coarse spray device. Be sure to wet all surfaces thoroughly. Do not breathe spray.
3. Allow product to remain on surface for 10 minutes.
4. Wipe with clean cloth, sponge or paper towel.
5. For heavily soiled areas, thoroughly clean surface prior to disinfecting.
6. After disinfecting food contact surfaces used for food preparation, rinse surfaces thoroughly with potable water. This product must not be used to clean the following surfaces: utensils, glassware and dishes.

TO DISINFECT FOOD-PROCESSING AND TOBACCO

PREMISES: Before using this product, food products and packaging materials must be removed from area or carefully protected. For floors, walls and storage areas, add 2 ounces of this product to gallon of water (or equivalent use dilution). For heavily soiled areas, a pre-cleaning step is required. Apply solution with a mop, cloth, sponge or hand pump trigger sprayer so as to wet all surfaces thoroughly. For sprayer applications, use a coarse spray. Allow to remain wet for 10 minutes, then remove excess liquid. After use, all surfaces in the area must be thoroughly rinsed with potable water.

TO DISINFECT FOOD SERVICE ESTABLISHMENT FOOD CONTACT SURFACES:

For countertops, appliances, and tables. Before using this product, food products and packaging materials must be removed from area or carefully protected. Add 2 ounces of this product to 1 gallon of water (or equivalent use dilution). For heavily soiled areas, a pre-cleaning step is required. Apply solution with a mop, cloth, sponge or hand pump trigger sprayer so as to wet all surfaces thoroughly. Allow to remain wet for 10 minutes. Then remove excess liquid and rinse the surface with potable water. For sprayer applications, use a coarse spray device. This product is not for use on dishes, glassware or eating utensils. After use, all surfaces in the area must be thoroughly rinsed with potable water.

FOR USE ON NON-FOOD CONTACT SURFACES AS A GENERAL DISINFECTANT IN THE BREWERY INDUSTRY: Use 2 ounces of this product per gallon of water (or equivalent use dilution). Follow the general disinfectant directions above.

DIRECTIONS FOR FOGGING: For use in dairies, beverage and food processing plants. Prior to fogging, food products and packaging material must be removed from the room or carefully protected. After cleaning, fog desired areas using 1 quart per 1000 cubic feet of room area with a solution containing 3 ounces of product to 1 gallon of water (or equivalent use dilution). Vacate the area of all personnel during fogging and for a minimum of 2 hours after fogging. All food contact surfaces must be thoroughly rinsed prior to reuse with potable water.

Note: The fog generated is irritating to the eyes, skin and mucous membranes. Under no circumstances should a room or building be entered by anyone within two hours of the actual fogging. If the building must be entered, then the individuals entering the building must wear a self-contained respirator approved by NIOSH/MSHA, goggles, long sleeves and long pants.

FOGGING IS TO BE USED AS AN ADJUNCT TO ACCEPTABLE MANUAL CLEANING AND DISINFECTING OF ROOM AND MACHINE SURFACES.

DISINFECTING POTATO STORAGE AREA AND

EQUIPMENT: Remove all potatoes prior to disinfection of potato storage area and equipment. Pre-clean hard surfaces by removing heavy soils or gross filth. Follow general disinfecting directions as outlined in that section. All treated surfaces must be thoroughly rinsed with potable water prior to reuse.

FOR CONTROL OF THE DROSOPHILA SPP. AND PHORIDAE FAMILY OF FLIES ON NON-FOOD CONTACT SURFACES:

To control flies on non-food contact surfaces such as floors, walls, countertops, metal surfaces, painted surfaces, glazed porcelain, glazed tile, glass, chrome, rubber, and plastic in restaurants, kitchens, dishwashing areas, and bar and wait station areas. Remove food and food packaging prior to use. Cover exposed food-handling surfaces. After removing gross filth, apply a solution of 2 ounces of

this product per gallon of water (or equivalent use dilution) to surfaces and locations where flies may breed. Spray surfaces thoroughly or apply by pouring, mopping or sponging onto the surface. Repeat application 1-2 times per week or as needed. Do not contaminate food and food packaging.

FOR CONTROL OF SMALL FLIES IN DRAINS:

Drosophila spp. and the Phoridae family. Spray or pour solution of 2 ounces per gallon of water (or equivalent use dilution) into drain during time of lowest level of drain use. Add 14 ounces of solution daily to each drain to maintain fly control. Apply around the edge of the drain and coat all sides of inside of drain.

ANIMAL PREMISES

ANIMAL VIRUCIDAL* PERFORMANCE: At 1¼ ounce per gallon of water use level treated surfaces must remain wet for ten minutes. For heavily soiled areas, a preliminary cleaning is required. Prepare a fresh solution daily or more often if solution becomes diluted or soiled.

This product was evaluated and found to be effective in the presence of 5% blood serum against the following viruses on hard non-porous surfaces:

- Avian influenza A/Turkey/Wisconsin
- Canine Distemper
- Infectious Bovine Rhinotracheitis virus (IBR)
- Newcastle disease virus
- Porcine Respiratory & Reproductive Virus (PRRSV)
- Porcine Rotavirus
- Pseudorabies virus
- Transmissible Gastroenteritis (TGE)

At 2 ounces per gallon of water use level, with treated surfaces remaining wet for 10 minutes, this product was evaluated and found to be effective in against the following virus on hard non-porous surfaces:

- Canine Coronavirus

At 2 ounces per gallon of water in the presence of 400 ppm of hardness for a 10 minutes contact time, this product was found to be effective against Hantavirus.

SITE PREPARATION: The first step in any on-going sanitation program should be the removal of gross contamination and debris. This may be accomplished using a shovel, broom, or vacuum depending on the area to be disinfected. The efficacy of even the most efficient germicidal cleaner is reduced in the presence of heavy organic matter. Once the heavy debris is eliminated thoroughly clean all surfaces with soap or detergent and rinse with water.

APPLICATION: Remove all animals and feeds from premises, vehicles and enclosures (coops, crates, kennels, stables). Remove all litter, droppings and manure from floors, walls and surfaces of barns, pens, stalls, chutes and other surfaces of facilities and fixtures occupied or traversed by poultry or other animals. Empty all troughs, racks and other feeding and watering appliances. Thoroughly clean all surfaces with soap or detergent and rinse with water. Saturate surfaces with recommended disinfecting or virucidal solution for a period of 10 minutes. Immerse all halters, ropes, and

other types of equipment used in handling and restraining animals, as well as forks, shovels, and scrapers used for removing litter and manure. Ventilate buildings, coops and other closed spaces. Do not house animals or employ equipment until treatment has been absorbed, set or dried. Thoroughly scrub all treated feed racks, troughs, automatic feeders, fountains and waterers and other equipment which may contact food or water with soap or detergent, and rinse with potable water before reuse.

Special Instructions for Cleaning and Disinfecting areas which may be infested with Hantavirus

Infection with Hantavirus occurs by inhalation of infectious materials. CDC recommends that persons involved with cleanup wear coveralls, (disposable, if possible), rubber boots or disposable shoe covers, rubber or plastic gloves, protective goggles, and a half mask air purifying, negative pressure respirator with a high efficiency particulate air (HEPA) filter or a powered air-purifying respirator (PAPR) with HEPA filter. Disinfect Personal Protective gear upon removal at the end of the day. If the coveralls are not disposable, they must be laundered on site. If no laundry facilities are available, the coveralls must be immersed in liquid disinfectant until they can be washed.

All potential infective waste material (including respirator filter) from cleanup operations that cannot be burned or deep buried on site must be double bagged in appropriate plastic bags. The bagged material must then be labeled as infectious (if it is to be transported) and disposed of in accordance with local requirements for infectious waste.

Rodent droppings and visible dust may be reservoirs for Hantavirus. If you are cleaning out a building that has been closed up, such as a cabin, shed or garage:

- a. Air out the building for at least 30 minutes by opening windows and doors.
- b. Leave the building while it is airing out.
- c. Do not vacuum, sweep or dust. This may spread the virus through the air.
- d. Thoroughly wet the contaminated areas with the product and allow to stand undisturbed for 10 minutes.
- e. Carefully remove contaminated material and dispose by burial or burning. Contact your local and state health department for additional disposal methods.
- f. Treat the surface again following the label directions and allow to stand undisturbed for 10 minutes.

DISINFECTION/FUNGICIDE / VIRUCIDE OF POULTRY / TURKEY EQUIPMENT; SWINE QUARTERS; LIVESTOCK, EQUINE, DAIRY AND HOG FARMS; EQUINE QUARTERS; ANIMAL QUARTERS AND KENNELS:

Prior to disinfection, remove all poultry, other animals and their feed from premises, vehicles (trucks and cars) and enclosures (coops, crates, kennels, stables). Remove all litter, droppings and manure from floors, walls and surfaces of barns, pens, stalls, chutes and other surfaces of facilities and fixtures occupied or

traversed by poultry or other animals. Empty all troughs, racks and other feeding and watering appliances. Thoroughly clean all surfaces with soap or detergent and rinse with water. Use 2 ounces of this product per gallon of water (or equivalent use dilution). Saturate surfaces with the recommended disinfecting solution for a period of 10 minutes. Immerse all halters, ropes and other types of equipment used in handling and restraining animals, as well as forks, shovels, and scrapers used for removing litter and manure.

After application, ventilate buildings, coops and other closed spaces. Do not house poultry or other animals or employ equipment until treatment has been absorbed, set or dried.

All treated equipment that will contact feed or drinking water (racks, troughs, automatic feeders, fountains and waterers) must be thoroughly scrubbed with soap or detergent then rinsed with potable water before reuse.

HATCHERIES: Use 2 ounces of this product per gallon of water (or equivalent use dilution) to treat the following hard non-porous surfaces: hatchers, setters, trays, racks, egg flats, walls, floors, ceilings, chickboxes, egg cases, trash containers, carts, sexing tables, delivery trucks, vans and other hard surfaces. Leave all treated surfaces exposed to disinfectant solution wet for 10 minutes or more. Rinse with potable water before reuse. Then allow to air dry.

VEHICLES: Clean all vehicles including mats, crates, cabs, and wheels with high-pressure water and this product. Use 2 ounces per gallon (or equivalent use dilution) to treat all vehicles. Leave all treated surfaces exposed to disinfectant solution wet for 10 minutes or more and allow to air dry. For sprayer applications, use a coarse spray device.

DRESSING AND RENDERING PLANT USE (RENDERING PLANT/DRESSING PLANT DISINFECTANT DIRECTIONS): Disinfect equipment, walls and floors in poultry and animal dressing plants. Disinfect offal rooms, exterior walls and loading platforms of dressing plants. Cover or remove all food and packaging materials. Remove all gross soils. Saturate all surfaces with the recommended use solution, 1½ ounces of this product per gallon of water (or equivalent use dilution). Scrub to loosen all soils. Allow to soak for 10 minutes and thoroughly rinse all wetted and cleaned surfaces with potable water.

RENDERING PLANT/DRESSING PLANT DISINFECTANT / FUNGICIDE / VIRUCIDE DIRECTIONS: Cover or remove all food packaging material before disinfection. Remove gross soils. Apply to equipment, walls and floors in poultry and animal dressing plants with a solution of 2 ounces of this product per gallon of water (or equivalent use dilution). Equipment and utensils must remain wet for 10 minutes then thoroughly rinsed with potable water before operations are resumed. Disinfect all rooms, exterior walls and loading platforms of dressing plants.

Thoroughly rinse all wetted and cleaned surfaces with potable water.

VEAL, CALVING, HOG, CATTLE AND HORSE OPERATIONS: Between depopulations of facilities, cleaning and disinfection of pens, hutches, aisles and other environmental surfaces may be required. Empty all troughs, racks, and other feeding and watering appliances. Flush soils from these areas. Thoroughly clean all surfaces with soap or detergent and rinse with water. Saturate all surfaces with recommended disinfecting or virucidal solution and allow to remain wet for a period of 10 minutes. Immerse all halters, ropes and other types of equipment used in handling and restraining animals as well as forks, shovels and scrapers used in removing litter and manure. Ventilate buildings, cars, trucks, boats and other closed spaces. Do not house livestock or employ equipment until treatment has been absorbed, set or dried. Thoroughly scrub all treated feed racks, mangers, troughs, automatic feeders, fountains and waterers with soap or detergent and rinse with potable water before reuse.

TERRARIUM AND SMALL ANIMAL CAGE AND CAGE FURNITURE DISINFECTION: Animals frequently defecate on hot rocks and other cage furniture items inside your terrarium. This can result in high bacteria and ammonia levels that can lead to possible infection/disease in your animals. When used regularly this product can eliminate these high bacteria/ammonia levels in your cage and on your cage furniture items.

1. Remove all animals.
2. Thoroughly clean all surfaces and objects (hot rocks, caves, cage furniture, feeding and watering dishes, and appliances) including the substrate in the terrarium or cage with soap or detergent and rinse with water.
3. Saturate all surfaces (floors, walls, cages and other washable hard, non-porous environmental surfaces) with the recommended disinfecting and virucidal solution for a period of 10 minutes. For smaller surfaces, use a trigger spray bottle to spray all surfaces with solution until wet. Then wipe surfaces dry.
4. Saturate gravel as above and let stand for 10 minutes. Place in bucket of clean water and swirl for 15-30 seconds. Thoroughly air dry before returning to terrarium.
5. Do not return animals to the habitat until it is dry and ventilated.
6. Thoroughly scrub all treated surfaces with soap or detergent and rinse with potable water before reuse.
7. Clean terrarium at least once weekly or more as needed.

Note: Substrates for desert terrariums (i.e. gravel) must be completely dry before returning to terrarium to avoid high humidity levels. Always replace substrate if a foul odor persists.

POULTRY AND SWINE PREMISE SANITATION

Site Preparation: The first step in any on-going sanitation program should be the removal of gross

contamination and debris. This may be accomplished using a shovel, broom, or vacuum depending on the area to be disinfected. The efficacy of even the most efficient germicidal cleaner is reduced in the presence of heavy organic matter. Once the heavy debris is eliminated thoroughly clean all surfaces with soap or detergent and rinse with water.

APPLICATION AND USE DILUTION POULTRY AND SWINE PREMISE: Remove all animals and feeds from premises, trucks, cars, coops and crates. Remove all litter, droppings and manure from floors, walls and surfaces of facilities occupied or traversed by animals. Empty all troughs, racks and other feeding and watering appliances. Thoroughly clean all surfaces with soap or detergent and rinse with water. Use 2 ounces of this product per gallon of water. Saturate surfaces with the recommended disinfecting solution for a period of 10 minutes. Ventilate buildings, coops and other closed spaces. Do not house animals or employ equipment until treatment has been absorbed, set or dried. Thoroughly scrub treated feed racks, troughs, automatic feeders, fountains and waterers and other equipment which may contact food or water with soap or detergent, and rinse with potable water before reuse. Immerse all halters, ropes, and other types of equipment used in handling and restraining animals, as well as forks, shovels, and scrapers used for removing litter and manure.

VETERINARY PRACTICE / ANIMAL CARE FACILITIES / ANIMAL LABORATORY / ANIMAL LIFE SCIENCE LABORATORY / ANIMAL RESEARCH CENTERS / ANIMAL QUARANTINE AREAS / ZOOS / PET SHOP / KENNELS / ANIMAL HUSBANDRY / ANIMAL BREEDING FACILITIES / BREEDING AND GROOMING ESTABLISHMENT / TACK SHOPS
DISINFECTION DIRECTIONS: For cleaning and disinfecting the following hard non-porous surfaces: equipment not used for animal food or water, utensils, instruments, cages, kennels, stables, stalls and catteries. Remove all animals and feeds from premises, animal transportation vehicles, crates, etc. Remove all litter, droppings and manure from floors, walls and surfaces of facilities occupied or traversed by animals. Thoroughly clean all surfaces with soap or detergent and rinse with water. Saturate surfaces with a use solution of 2 ounces of this product per gallon of water (or equivalent dilution) for a period of 10 minutes. Immerse all halters, ropes, and other types of equipment used in handling and restraining animals as well as forks, shovels, scrapers used in removing litter and manure. Ventilate buildings and other closed spaces. Do not house animals or employ equipment until treatment has been absorbed, set or dried.

SPECIAL INSTRUCTIONS FOR INACTIVATING AVIAN INFLUENZA A: Remove all poultry and feeds from premises, trucks, coops, and crates. Remove all litter and droppings from floors, walls, and surfaces of facilities occupied or traversed by poultry. Empty all troughs, racks, and other feeding and watering appliances. Thoroughly clean all surfaces with soap or

detergent and rinse with water. Saturate surfaces with the recommended disinfecting solution, 2 oz per gallon of water (or equivalent use dilution), for a period of 10 minutes. Immerse all halters, ropes and other types of equipment used in handling and restraining animals as well as forks, shovels, scrapers used in removing litter and manure. Ventilate buildings, coops, and other closed spaces. Do not house poultry or employ equipment until treatment has been absorbed, set, or dried. Thoroughly scrub treated feed racks, troughs, automatic feeders, fountains, and waterers with soap or detergent, and rinse with potable water before reuse.

ANIMAL HOUSING

TO SANITIZE HOOF TRIMMING EQUIPMENT: Prior to application, pre-clean hoof trimming equipment and utensils before and after use on each animal with detergent and warm water or compatible cleaner to remove soil using a pre-scrape, pre-flush, or when necessary, pre-soak followed by a potable water rinse. To sanitize, prepare a 1 oz of this product per 2¾ gallons of water (or equivalent use dilution) solution. Apply to pre-cleaned hard surfaces using a cloth, mop, sponge or sprayer or by immersion to thoroughly wet surfaces. Allow surfaces to remain wet for at least 5 minutes followed by adequate draining or air drying. Prepare fresh solution at least daily or when solution becomes visibly dirty.

SANITIZING HATCHERY ROOMS USING FOGGING DEVICES: Remove all animals and feed from premises, vehicles and enclosures. Remove all litter and manure from floors, walls and surfaces of the room to be treated. Empty all troughs, racks and other feeding and watering appliances. Close room off so fog is confined to room to be treated. Mix 2 gallons this product to 2½ gallons water. Insert the nozzle of the fogger through a suitable opening into the room. With the setting in maximum output, fog for one minute for each 4000 cubic feet of space in the room. When fogging is completed ventilate buildings and other closed spaces. Do not house livestock or employ equipment until treatment has been absorbed or dried. Thoroughly clean all surfaces with soap or detergent and rinse with water.

SANITIZING INCUBATORS AND HATCHERS USING FOGGING DEVICES: Mix 24 ounces of this product to 122 ounces of water. Fog 3-8 ounces of this into setters and hatchers immediately after transfer. Repeat daily in setters and every 12 hours in hatchers.

OTHER USES

FOR USE ON FINISHED FLOORS: To limit gloss reduction, use this product at 1¼ oz per gallon of water use dilution (or equivalent use dilution). Apply with a damp mop or auto scrubber. Allow to air dry.

FOR USE AS A ONE-STEP CLEANER / DISINFECTANT:

1. Pre-clean heavily soiled areas.
2. Apply 1¼ ounce per gallon solution (or equivalent use dilution) to hard, non-porous environmental surfaces.

3. To disinfect, all surfaces must remain wet for 10 minutes.
4. Wipe surfaces and let air dry.

Note: Rinsing is not necessary unless floors are to be coated with finish or restorer. All food contact surfaces, such as appliances and kitchen countertops, must be rinsed with potable water. Do not use this product to clean or disinfect glassware, utensils, dishes or interior surfaces of appliances.

CLEANSING OF BODY SURFACES AND BODY ORIFICES OF HUMAN REMAINS: To cleanse away skin secretions and accompanying malodor, to ensure the removal of all soil and bloodstains, and to remove and reduce surface contamination, apply 2 ounces of this product to 1 gallon of water to the surfaces and body openings, natural or artificial. Allow a 10 minute contact time for optimal results. Bathe the entire body using sponge or washcloth. A soft brush may be employed on surfaces other than the face. Prepare a fresh solution for application of each remains.

CLEANING AND DISINFECTING HARD, NON-POROUS SURFACES ON PERSONAL PROTECTIVE EQUIPMENT (RESPIRATORS): Pre-clean equipment if heavily soiled to ensure proper surface contact. Apply 1¼ ounce per gallon of water (or equivalent use dilution) solution to hard, non-porous surfaces of the respirator with a brush, coarse spray device, sponge or by immersion. Thoroughly wet all surfaces to be disinfected. Treated surfaces should remain wet for 10 minutes. Remove excess solution from equipment prior to storage. The user must comply with all OSHA regulations for cleaning respiratory protection equipment (29 CFR § 1910.134).

COMMERCIAL FLORIST USE DIRECTIONS (*Not for use in California*): To clean, disinfect and deodorize hard non-porous surfaces in one step, prepare use solution by mixing 2 ounces per gallon of water (or equivalent use dilution) (1:64). For heavy-duty cleaning, mix 8 ounces per gallon of water (1:16).

Remove all leaves, petals, garbage and refuse. Pre-clean surfaces using pressurized water where possible. Apply use solution to hard (inanimate) non-porous surfaces, thoroughly wetting surfaces as recommended and required, with a cloth, mop, brush, sponge or sprayer.

For heavily soiled areas, a preliminary cleaning is required.

For sprayer applications, use a coarse pump or trigger sprayer. Spray 6-8 inches from surface, and rub with brush, sponge or cloth. Do not breathe spray.

Treated surfaces must remain wet for 10 minutes. Allow to air dry.

Prepare a fresh solution at least daily or when use solution becomes visibly dirty.

WATERBED CONDITIONER: When used as a waterbed conditioner, controls the growth of odor-causing and slime-forming bacteria. Prevents bubbles,

preserves plasticizers, conditions vinyl interior, sequesters minerals.

If bed has not been treated properly, drain bed completely. Add 15 gallons of water, mix vigorously, drain bed again. Fill bed with water and follow dosage directions.

Dosage: To control growth of odor-causing and slime-forming bacteria, add 10 fluid ounces in a free flow waterbed of 90 to 180 gallon capacity. Add 10 fluid ounces in a waveless/fiber waterbed mattress of 90 to 180 gallon capacity. Repeat application every 4 to 6 months.

CITRUS CANCER CONTROL AND CONTROL OF BACTERIA SPOT OF TOMATOES (*Not Applicable in California*): For prevention of Citrus Canker and Bacterial Spot of Tomatoes Diseases through treatment of equipment. Effective against *Xanthomonas axonopodis* pv. *citri* (Citrus Canker) and *Xanthomonas campestris* pv. *vesicatoria* (bacteria spot of tomatoes) at 2060 ppm active quat. Treat all trucks, vehicles, and equipment thoroughly at a dilution ratio of 1:27. Treatment can be applied to trucks, attached trailers, field harvesting equipment; including cargo area, wheels, tires, under carriage, hood, roof, fenders and any other part of transportation equipment that can be taken into infested areas. To prevent the spread of Citrus Canker by this artificial means of transportation, treatments are made by trigger spraying, dipping or brushing, using maximum rate 2060 ppm quat. For sprayer applications use a coarse spray. After use, all surfaces which come in contact with food or crop must be rinsed with potable water. Clothing must be either thoroughly rinsed or laundered before reuse. Footwear must be rinsed before reuse.

DIRECTIONS FOR HOUSEHOLD USE

KITCHEN / BATHROOM / HOUSEHOLD CLEANING: Apply 2 oz per gallon of water (or equivalent use dilution) solution with a cloth, sponge, mop or directly on surface with a mechanical spray. If a mechanical spray is used spray must be coarse. Hold container 6 inches to 8 inches from surface and spray until thoroughly wet. Do not use on paint or acrylic plastics. Wipe the soiled area clean. This product is not to be used on dishware, glasses or eating utensils.

DISINFECT/DEODORIZE: To disinfect hard, non-porous surfaces such as floors, walls, counters, sinks, tubs, toilets, glazed tile, exterior surfaces of appliances, refrigerators or freezers, microwave exteriors, stove tops and hoods, tables, garbage pails or faucets, apply 2 oz per gallon of water (or equivalent use dilution) with cloth, sponge, mop or mechanical spray. If a mechanical spray is used, spray must be coarse. Hold container 6 inches to 8 inches from surface and spray until thoroughly wet. Treated surface must remain wet for 10 minutes before wiping. For heavily soiled areas a pre-cleaning step is required. The pre-clean step should be done according to the instructions under Kitchen/Bathroom/Household

Cleaning. Rinse with potable water after use on surfaces that come in contact with food.

SANITIZING NON-FOOD CONTACT SURFACE DIRECTIONS

PREPARATION OF SANITIZER USE SOLUTION: Add 1 ounce per 2¾ gallons of water to sanitize hard non-porous environmental surfaces. Treated surfaces must remain wet for 5 minutes. Allow to air dry.

Enterobacter aerogenes *Klebsiella pneumoniae*
Staphylococcus aureus

TO SANITIZE AND DEODORIZE: Apply use solution to hard inanimate, non-porous surfaces, thoroughly wetting surfaces as recommended and required with a cloth, mop, sponge or sprayer. For heavily soiled areas, a preliminary cleaning is required. For sprayer applications, use a coarse spray device. Spray 6-8 inches from surface. Rub with brush, sponge or cloth. Do not breathe spray. Let stand for 5 minutes. Then wipe. Allow to air dry.

FOOD PROCESSING

SHOE/BOOT BATH SANITIZER: To prevent cross contamination from area to area in animal areas, and the packaging and storage areas of food plants, shoe baths containing one inch of freshly made solution must be placed at all entrances to buildings, hatcheries and at all the entrances to the production and packaging rooms. Scrape waterproof shoes and place in 2 ounces of this product per gallon (16 milliliters per liter) of water (or equivalent use dilution) solution for 5 minutes prior to entering area. Change the sanitizing solution in the bath at least daily or sooner if solution appears dirty.

SHOE FOAM DIRECTIONS: To prevent cross contamination from area to area in animal areas, and the packaging and storage areas of food plants. Apply a foam layer approximately 0.5 to 2 inches thick made from a solution of 2 ounces per gallon of water (or equivalent use dilution) at all entrances to buildings, hatcheries, production and packaging rooms by using a foam generating machine or aerator to apply foam layer. Follow the foaming directions as specified by the manufacture of the foam generator/aerator. Scrape waterproof shoes. Stand and/or walk through foamed area for 5 minutes prior to entering area. Foam area must be washed and replaced at least daily or when it appears dirty.

ENTRYWAY SANITIZING SYSTEMS: To prevent cross contamination from area to area, set the system to deliver 2 ounces per gallon of water (or equivalent use dilution) of sanitizing solution. The spray/foam must cover the entire path of the doorway. Set the system so that a continuous wet blanket of sanitizer solution is delivered to the floor.

Do not mix other foam additives to the sanitizing solution.

MUSHROOM FARM INDUSTRY USE DIRECTIONS

Site Preparation: The first step in any on going sanitation program should be the removal of gross contamination and debris. This may be accomplished by using a shovel, broom, or vacuum, depending on the area to be disinfected.

Disinfection: Use 2 ounces of this product per gallon of water (or equivalent dilution). Wet all surfaces thoroughly. Treated surfaces must be allowed to remain wet for 10 minutes. Let air-dry. For heavily soiled areas, preclean first. Prepare a fresh solution for each use.

For Heavy Duty Cleaning: When greater cleaning is desired, use 4 ounces of this product per gallon of water (or equivalent dilution). Heavily soiled areas may require repeated cleaning before treatment.

DO NOT APPLY TO THE MUSHROOM CROP, COMPOST OR CASING. Rinse treated surfaces with potable water before they contact the crop, compost or casing.

Warranty Disclaimer

To the extent not prohibited by applicable law, Manufacturer warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below. To the extent not prohibited by applicable law, **MANUFACTURER MAKES NO OTHER EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER EXPRESS OR IMPLIED WARRANTY.**

Inherent Risks of Use

The directions for use are believed to be adequate and must be carefully followed. It is impossible to eliminate all risks associated with use of this product. Lack of performance or other unintended consequences may result because of such factors as use of the product contrary to label instructions, abnormal conditions, the presence of other materials, climatic conditions, the manner of application, all of which are beyond the control of the Manufacturer. To the extent not prohibited by applicable law, the buyer/user assumes all such risks.

Limitation of Remedies

To the extent not prohibited by applicable law the exclusive remedy for losses or damages resulting from this product (including claims based on contract,

negligence, strict liability or other legal theories) shall be limited to, at Manufacturer's election, one of the following:

1. Refund of purchase price paid by buyer or user for product bought, or
2. Replacement of amount of product used.

To the extent not prohibited by applicable law: a) Manufacturer shall not be liable for losses or damages resulting from handling or use of this product unless Manufacturer is promptly notified of such loss or damage in writing; and b) **IN NO CASE SHALL MANUFACTURER BE LIABLE FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES OR LOSSES, INCLUDING WITHOUT LIMIT, HEALTH RELATED DAMAGES OR INJURIES.**

The terms of this **Warranty Disclaimer** and **Limitation of Remedies** cannot be varied by any written or verbal statements or agreements. No employee or sales agent of Manufacturer or the seller is authorized to vary or exceed the terms of this **Warranty Disclaimer** or **Limitation of Remedies** in any manner.

It is not intended that this product be used to practice any patent not owned by Nisus Corporation, whether mentioned or not, without procurement of a license (if necessary) from the owner following investigation by the user.



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MATERIAL SAFETY DATA SHEET

Issue Date 9/05
Revised: 02/09

Nisus DSV

Health Emergencies: CHEMTREC® 1-800-424-9300

Section I: PRODUCT IDENTIFICATION

Manufacturer: Nisus Corporation
100 Nisus Drive
Rockford, TN 37853
800-264-0870 FAX: 865-577-5825

Trade Name: Nisus DSV

EPA Registration No. 10324-80-64405

Chemical Family: Quaternary Ammonium

Compound Formula: $[R_1-N(CH_3)_2CH_2C_6H_5]^+Cl^- [R_2-N(CH_3)_2CH_2C_6H_4C_2H_5]^+Cl^-$

C.A.S. No.: (See Below)

Section II: HAZARDOUS INGREDIENTS

	Weight	TWA/TLV
Alkyl (C ₁₂ -C ₁₆) dimethyl benzyl ammonium chloride (CAS 68424-85-1)	2.200%	ND
Octyl decyl dimethyl ammonium chloride (CAS 32426-11-2)	1.650%	ND
Dioctyl dimethyl ammonium chloride (CAS 5538-94-3)	0.825%	ND
Didecyl dimethyl ammonium chloride (CAS 7173-51-5)	0.825%	ND
Sodium Carbonate Soda Ash (CAS 497-19-8)	0.500%	ND
Tetrasodium ethylenediamine tetraacetate (CAS 64-02-8)	1.900%	ND
Polyethylene glycol 9 moles (CAS 68131-40-8)	2.500%	ND

Section III: PHYSICAL AND CHEMICAL CHARACTERISTICS (FIRE & EXPLOSION DATA)

Boiling Point: ND

pH: 12.4

Percent Volatile: (by weight) ND

Evaporation Rate: ND (Butyl Acetate=1)

Solubility In Water: Soluble

Vapor Pressure: ND

Appearance and Odor: Colorless to light straw in color Benzaldehyde Odor

Density: 8.4 lbs./gallon (H₂O = 1)

Flash Point: over 200°F

Auto Ignition Temp.: ND

Lower Explosion (%): ND

Upper Explosion (%): ND

Extinguishing Media: Dry Chemical, Water Fog, CO₂, Foam

Special Fire Fighting Procedures: Cool fire exposed containers with spray, Must wear MSHA/NIOSH approved self contained breathing apparatus.

Unusual Fire Explosion Hazards: Explosive mixtures can form with air. Combustion products are toxic. Solvents vapors can travel to an ignition source and flash back.

Section IV: PHYSICAL HAZARDS

Stability: Stable

Conditions to avoid: NA

Incompatibility: Strong oxidizers or reducing agents

Conditions to avoid: Mixing with strong oxidizers or reducing agents

Hazardous Polymerization: Will not occur

Hazardous Decomposition Products: Toxic hydrogen chloride fumes, oxides of carbon and nitrogen.

Section V: HEALTH HAZARDS

Routes of Entry: Skin Contact, Inhalation, Eye Contact.

Inhalation: Irritation of mucous membrane can be caused by solvent vapors or mists of products. **Eye Contact:** Corrosive. Severe eye damage can result from direct contact. **Skin Contact:** Severe Irritation **Ingestion:** May be fatal. Burning pain in the mouth, throat, abdomen, severe swelling of the larynx, skeletal muscle paralysis affecting the ability to breathe, circulatory shock, convulsions.

First Aid

Skin and eye: In case of contact, immediately flush the eyes and skin with plenty of water for at least 15 minutes. For eyes, call a physician. Remove and wash contaminated clothing before reuse. **Ingestion:** If swallowed drink promptly, a large quantity of egg whites, gelatin solution or, if these are not available, drink large quantities of water. Avoid alcohol. Call a physician immediately. Note to Physician: Probable mucosal damage may contraindicate the use of gastric lavage.

Chemicals Listed as Carcinogen by:

OSHA -NO
I.A.R.C. Monographs -NO
National Toxicology Program -NO

Section VI: TOXICITY

Acute Oral LD₅₀ - 2.72g/kg. **Acute Dermal** - ND **Primary Skin** - Corrosive **Primary Eye** - Corrosive

Section VII: SPECIAL PROTECTION INFORMATION

Ventilation type: Mechanical (Explosion proof)

Respiratory Protection: None required if good ventilation is maintained. For mist or vapor wear NIOSH Approved respirator.

Protective Gloves: Rubber or Neoprene

Eye Protection: Splashproof safety goggles

Other Equipment: Impervious apron, eyewash facility, emergency shower, faceshield.

SECTION VIII: SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURE

Handling and Storage: Keep from freezing. Store in original container. **Spill and Leak Procedure:** Remove ignition sources. Wear respirator. Small spills may be mopped up, flushed away with water or absorbed on some absorbent material and incinerated. Large spills should be contained; the material then moved into containers and disposed of by approved methods for hazardous wastes. **Waste Disposal:** Incinerate. Make sure that all federal, state and local regulations are observed.

SECTION XIV - TRANSPORTATION INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION
PROPER SHIPPING NAME: Consumer Commodity ORM-D
BULK SHIPPING: Contact manufacturer.

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind expressed or implied is made with respect to the information contained herein. This information and product are furnished on the condition that the persons receiving them shall make their own determination as to the suitability of the product for their particular purpose and on the condition that they assume the risk of their use thereof.



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