

## TECHSPEAK

**Antimicrobial:** Chemical substance or compound designed to inhibit or kill microbes.

**Antiseptic:** Bactericidal chemical substances or compounds designed for direct application to living tissue.

**A.M.A.:** Trade/professional organization of doctors and physicians.

**A.O.A.C.:** The Association of Official Analytical Chemists is a group that produces test methods used for establishing the data required for E.P.A. registered products.

**A.O.R.N.:** Trade/professional organization of operating room nurses.

**Abrasives:** Gritty additives used to increase scouring ability. May scratch some surfaces in use.

**Acid:** A chemical compound that forms hydronium ions in water; the resultant solution has a pH less than 7.

**Acidity:** The ability of a solution to react with or neutralize a strong base to a specific pH.

**Actuator:** Also called tip or button, it is the housing for the spray orifice on an aerosol valve. It functions as the means for controlling on/off, direction, and sometimes the volume or spray pattern.

**Aerosol:** Common term used to refer to pressurized containers that dispense their contents as an extremely fine mist of liquid or solid particle, suspended in air.

**Alkaline:** Term for all chemical elements or compounds with a pH greater than seven.

**Alkalinity:** Buffering, or acid neutralizing, capacity of water primarily due to its carbonate, bicarbonate, and hydroxide content. Measured in mg/l of CaCO<sub>3</sub> (calcium carbonate).

**Amine:** Ammonia derivative compounds with a characteristic high pH.

**Anionic:** Any chemical element or compound with a negative electrical charge.

**Bacteria:** Multishaped microorganisms of single cell construction either round/oval (coccus) or cylindrical (bacillus) capable of extremely rapid reproduction.

**Base:** Synonym of alkaline. A chemical compound that forms hydroxide ions in water. Any solution that has a pH greater than 7. In lubricants, a refined mineral oil free of an additive used as a component in a blend.

**Biodegrade:** The process by which organic compounds harmlessly breakdown into their simplest components by natural means such as microorganisms and ultraviolet light. A common method for testing this ability is the River Dye Away Test. This test involves measuring biodegradability as if it were in a river exposed to natural means for thirty days.

**Buffer:** A chemical compound which when dissolved in water tends to resist changes in pH when small amounts of acids or bases are added.

**Butyl Cellosolve:** A water soluble solvent widely used in cleaning compounds. Excellent water based degreasing agent. See glycol ether.

**C.D.C.:** The Center for Disease Control located in Atlanta, Georgia.

**California Air Resources Board (CARB):** Group of representatives established to protect the California air quality with primary emphasis on VOC emissions and the control of ground level ozone (SMOG). Largely influential with California E.P.A. and the Air Quality Management Districts (AQMD) of the state.

**Cationic:** Any chemical element or compound with a positive electrical charge.

**Cautic:** Generic term for compounds with a pH greater than seven. See alkaline.

**Chelant:** Chemical that sequesters ions (such as calcium, iron, copper) in solution. Used in detergents to increase efficacy in hard water.

**Concentration:** The amount of active ingredient in a product. Concentration may be calculated either by weight or by volume.

**Culture:** Typically the intentional cultivation of microorganisms in a nutrient media for the purposes of testing and analysis.

**Detergent:** A chemical compound that reduces the surface tension of water which promotes wetting and emulsification. In lubricants, it is usually metal-organic chemicals that control deposit formation in machines and internal combustion engines by keeping oil-insoluble materials suspended in oil, thus permitting removal by draining.

**Dilution Rate:** Ratio of liquid to concentrate that ultimately yields the effective finished product desired.

**Disinfection:** The process by which pathogenic (disease causing) microorganisms are killed. Reduction of surface bacteria.

**E.P.A.:** The Environmental Protection Agency is a branch of the U.S. Government with jurisdiction over disinfectant registrations, among other responsibilities.

**Efficacy Data:** Test results from A.O.A.C. testing used to support claims with E.P.A. registered disinfectants.

**Evaporate:** The vaporization (change to gas phase) of a liquid.

**Fungus:** Multicellular organisms such as mold and mildew which reproduce through the formation of spores.

**General Purpose:** Term used to describe disinfectants with hard surface kill claims of two or more organisms in a variety of specified and/or unspecified applications.

**Germicide:** Products, compounds, or substances which are efficacious (kill) microorganisms.

**Glycol Ethers:** Category of solvents such as ethylene glycol monobutyl ether (butyl cellosolve) that contain hydroxyls and ethers. Most common are water soluble solvents used for degreasing and industrial cleaning.

**Glycols:** Category of solvents such as propylene glycol that contain two or more hydroxyl groups. Commonly used as carrier solvents for air fresheners and air sanitizers.

**Gram:** A metric unit of mass and weight equal to 1/1000 kilogram and nearly equal to the mass (weight) of 1 cc of water at its maximum density.

**Gram Negative:** Bacteria of a particular cell wall construction which yields a pink color when tested per A.O.A.C. guidelines.

**Gram Positive:** Bacteria of a particular cell wall construction which yields a purple color when tested per A.O.A.C. guidelines.

**Hard Water:** Water containing magnesium and calcium ions. These ions bond to some disinfectant actives to reduce efficacy.

**Hospital Trio:** The three organisms targeted by hospital disinfectants: Staphylococcus aureus, Salmonella choleraesuis, and Pseudomonas aeruginosa.

**Incubation:** Period needed for microorganisms to develop per A.O.A.C. guidelines.

**Inert Ingredient:** An ingredient in a product which does not contribute to the product's function. Other than an active ingredient, typically the carrier for the active ingredients.

**Inorganic:** Inorganic materials are chemicals of mineral origin and may contain carbon and oxygen.

**Ion:** A particle carrying an electrical charge.

**J.C.A.H.:** The Joint Commission on the Accreditation of Hospitals is a group responsible for the regulation and establishment of operating standards and procedures.

**Kauri-Butanol Value (Kb):** Relative measure of solvency for hydrocarbon solvents. The higher the number, the higher the solvency of the compound.

**Microorganisms:** Microscopic life forms that require energy, carbon, and small amounts of inorganic elements to grow and multiply. In waste water treatment, they get these requirements from nutrients and in so doing help to remove pollutants from waste water.

**Miscible:** Liquids that are mutually soluble.

**Neutral solution:** A solution neither acidic nor basic.

**Nonionic:** Any chemical element or compound with a neutral electrical charge.

**Organic:** General term for compounds containing carbon and hydrogen molecules in their molecular structure. Material that comes from animal or vegetable sources. Organic matter generally can be consumed by bacteria and other small organisms.

**Organic soil:** Part of the A.O.A.C. use dilution test for disinfectant efficacy, it is the addition of a 5% blood serum mixture.

**Organism:** A form of life composed of mutually dependent parts which maintain various vital processes.

**Parts per million (ppm):** One part per million equals 1 milligram per liter (mg/l), 1 lb in 1,000,000 lbs.

**Pathogen:** Disease producing agent such as a bacteria, virus, spore, or protozoan.

**pH:** A relative measure of acidity and alkalinity in water solutions. Scale: 0 to 14, Key 1 = acid, 7 = neutral, 14 = alkaline. It is a term used to express the intensity of acidity - alkalinity.

**Phosphates:** Chemical compound used in the production of many cleaning products including detergents. Most often used in alkaline formulas. Primarily used as a chelant for water softening or as a builder for detergents.

the 99.999% reduction of microorganisms within 30 seconds.

**Solids %:** Percentage of solid materials dissolved in a solution. Generally used to refer to strength or concentration of some active ingredients.

**Solution:** Mixture of materials in which all materials are completely dissolved.

**Spores:** Certain microorganisms such as mildew form a protective shell during dormant periods.

**Sterilization:** The complete destruction of all organisms.

**Synergy:** Process by which two or more active ingredients become more efficacious together than each would be alone.

**Titration:** A quantitative method to determine the amount of a chemical in a solution. A standard solution is added to the unknown solution until a color or electrical change occurs (end point). The amount of the unknown chemical present can then be calculated from the amount of the standard solution used.

**Toxic:** The ability of a substance to harm an organism.

**Toxicity:** The measure of the amount of material needed to be lethal to 50% of the test subjects (mg/kg).

**U.S.D.A.:** United States Department of Agriculture. The U.S.D.A. controls and inspects red meat, poultry, and rabbit processing plants. In that position, they control chemicals used in those plants. They also control the way those products are used.

**Virus:** A type of microorganism that lives only inside other host cells.

**Viscosity:** The internal resistance of a fluid to flow. A low viscosity liquid is thin or light. A high viscosity liquid is thick or heavy.

**Volatile:** The material that will evaporate at normal temperatures. Percent volatiles usually refers to all components of a solution except the non-volatile solids.

**Wetting Agent:** A chemical that lowers the surface tension of water. See

## TECHSPEAK

### ACTIVE INGREDIENT PROFILES

**Acid:** Typically Hydrochloric (HCl) or Phosphoric, this active ingredient is a low pH compound which disrupts cell function through the complete destruction of all water-containing components. These extremely aggressive actives are used primarily for their inherent cleaning and mineral deposit removal from hard, nonmetallic, surfaces and possess some hazards with storage and handling. They are typically effective against a wide variety of organisms and associated with bowl and bath cleaners.

**Alcohol:** Typically Isopropanol or Ethanol, this ingredient is a fast acting, fast evaporating active which destroys cell function through dehydration. The active is derived from natural sources such as corn or grain and is effective against a wide variety of microorganisms but is typically flammable in solution and somewhat costly. Although aggressive cleaners, alcohols are also odorless and have some restrictions in storage and handling.

**Halogens:** Products or compounds in this family of active ingredients are nonselective and function through the aggressive destruction of cells. Included in this group are bromine, chlorine, fluorine, and iodine. Used for a variety of applications for many years, this class of actives are limited in use due to toxicity, function, and other performance related side effects.

**Phenol:** This active is one of the first disinfectants ever in use dating back to the late 1800's. It is an economical aromatic compound containing hydroxyls used primarily as broad range disinfectants. Originally made from coal tar, these compounds are now synthetically produced and kill microorganisms by opening the cell through the destruction of the cell wall. Also known as carboic acid, they are effective against a wide range of microorganisms including bacteria, virus, fungus, and spores such as HIV, TB, and mildew. However, they are associated with some environmental concerns in waste water effluent and have some limitations in use such as prenatal and neonatal care and around felines (cats).

**Pine Oil:** This naturally occurring disinfectant active is an extract from pine trees. Also made synthetically, it's not as effective as phenols or quats. Pine oil is therefore used in higher concentrations but provides powerful natural deodorizing in addition to disinfection. Effective through the destruction of cell wall function, it is effective against a broad range of microorganisms and has been a proven product for many years.

**Quaternary Ammonium Chloride:** These cationic compounds are used for disinfecting, cleaning, and fabric softening. Known generally as "quats", these compounds were first introduced in the 1930's and are also known as ADBAC quats for their chemical formula n-alkyl dimethyl benzyl ammonium chloride. To date, there have been four generations of quat evolution from the original ADBAC quats to ethyl modified quats, twin chain quats, and dual twin chain quats or quad quats with each evolution improving performance, water tolerance, and lowering toxicity and cost. Effective by attaching themselves to the protein coating of the cell wall and literally smothering the microorganism, quats are excellent broad spectrum yet selective disinfectants. However, they demonstrate limited viral efficacy.

## Foaming Cleaners

### B00249 BIODET APC

This product is the ready-to-use product for practically every application. The dual quat based formula has extensive label claims including the hospital trio, HIV, and more. It also has a rare claim for a quat based product - TB. As a cleaner, it has aggressive action against most dirt and deposits plus an excellent low level foam system for a RTU allowing it to stay where you need it most.

COLOR: Blue FRAGRANCE: Fresh & Clean DILUTION: RTU pH:11.5-12.5 USDA:n/a

### A00250 FOAM DISINFECTANT CLEANER

This dual quat formula is the backbone of germicidal cleaners. The high foaming aerosol quickly cleans and suspends dirt and deposits on most hard surfaces such as steel, chrome, porcelain, ceramic, enamel, and plastics. It has no abrasives and is effective against the hospital trio, HIV, and more. 20 ounce can.

COLOR: Colorless FRAGRANCE: Fresh & Clean DILUTION: Aerosol pH:12.5-13.0 USDA:C1

### A00251 MULTIPURPOSE DISINFECTANT CLEANER

This advanced technology phenolic based product is one of the most powerful cleaners available anywhere. The high pH, high foam, system uses unique solvents and surfactants to aggressively clean practically any surface without abrasives. For disinfection, the formula is effective against a broad spectrum including the hospital trio, HIV, TB, Influenza A3, Herpes I and II, as well as mold and mildew control. The pleasant fresh and clean fragrance is powerful leaving areas smelling great after cleaning. 20 ounce can.

COLOR: Colorless FRAGRANCE: Fresh & Clean DILUTION: Aerosol pH: 12.5-13.0 USDA:C1

### A00252 MULTIPURPOSE DISINFECTANT CLEANER II

This product is a lemon fresh version of A00251. It has all of the same performance, features, and label claims. 20 ounce can.

COLOR: Colorless FRAGRANCE: Lemon DILUTION: Aerosol pH:12.5-13.0 USDA:n/a

## Bulk Concentrates

### B00220 CLEAR LEMON 10

This general purpose formula is the core item in any building maintenance. The dual quat formula is an excellent cleaner, deodorizer, and disinfectant with all of the hospital trio claims. The pleasant lemon fragrance leaves the area smelling fresh and clean. Excellent for a variety of applications, the product has economical dilution ratios and is a must for any program.

COLOR: Yellow FRAGRANCE: Lemon DILUTION: 3:128 pH:7.0 USDA:C2

### B00222 CLEAR MINT 10

This product is a mint version of the B00220. It has all of the same performance, features, and label claims.

COLOR: Green FRAGRANCE: Wintergreen DILUTION: 3:128 pH:7.0 USDA:C1

### B00227 CLEAR PYNE

This pine oil and quat based general purpose formula is excellent against the hospital trio and more as a disinfectant, cleaner, and deodorizer. Used as a cleaner, it dilutes economically and easily with water and is safe on most surfaces including metals, plastics, and more. Noncorrosive and nonstaining, it is the ideal choice when an economical pine-type product is desired.

COLOR: Dark Yellow FRAGRANCE: Pine DILUTION: 4:128 pH:6.0-7.0 USDA:C1

### B00272 BIODET ND64

Fortified with the most diverse claims, this product is our best disinfecting, cleaning, and deodorizing formula for a wide variety of applications. The advanced technology, 5.425% quad quat formula provides effective disinfection against the hospital trio, HIV, Influenza A2, Herpes I and II, as well as veterinary applications such as Pseudorabies, Feline Leukemia, and Canine Distemper. The phosphate free formula is environmentally sensitive and has a neutral pH to clean flooring surfaces without damaging polymer floor finishes. It dilutes economically at two ounces per gallon and the pleasant lemon scent leaves areas smelling fresh.

COLOR: Yellow FRAGRANCE: Lemon DILUTION: 2:128 pH:6.0-8.0 USDA:n/a

### B00273 BIODET ND128

This product is a 10.85% quad quat version of B00272. It has all of the same performance, features, and label claims but dilutes at one ounce per gallon.

COLOR: Yellow FRAGRANCE: Lemon DILUTION: 1:128 pH: 6.0-8.0 USDA:n/a

#### Other Literature Available:

Air Care	1011632
Cleaning	1011634
Floor Care	1011638
Hand Care	1011648
Herbicides	1011640
Industrial	1011644
Insecticides	1011646
Lubricants	1011642
Water Treatment	1011650

Georgia  
990 Industrial Park Drive  
Marietta, GA 30062

Texas  
945 East Pleasant Run Road  
Lancaster, TX 75146



800-241-7766/770-422-2071  
Fax: 770-422-1737  
www.amrep.com

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# DISINFECTANTS

Microorganisms. This silent, invisible, menace to all facilities represents one of the biggest challenges to the maintenance professional. How do you know when the job is done right?

It all starts with top quality products. With something as important as health, you can't afford to choose the wrong one. Disinfectant products are not all alike. The best have fully supported registrations, perform well in the field, provide pleasant fragrances, deodorizing, and plenty of economical ease-of-use. They are backed by the label claims needed for your application plus part of an integrated system of products designed for global care. They are serviced by Sales, Regulatory, and Technical personnel who know disinfectants.

Our Disinfectant program is comprised of some of the most innovative and effective products available anywhere. Included are Disinfectant and Deodorant Sprays, Bath and Bowl Cleaners, Foaming Cleaners, and Bulk Concentrates; all formulated with both technology and practical sensibility. Each focuses on eliminating the problems of the maintenance professional - even those problems you can't see.

Don't trust your disinfection program to just anyone. Bring it to those who know.



## Disinfectants and Deodorants

### A00221 DISINFECTANT & DEODORANT II

This phenolic based product contains a multipurpose formula that is both functional and economical. Disinfection includes HIV, TB, Herpes I and II, as well as the hospital trio. The formula has residual mold and mildew control up to seven days on hard surfaces and 28 days on fabric. Deodorizing occurs from the pleasant fresh and clean fragrance plus excellent particle break up and suspension time. An all around good product, it is a great value. 20 ounce can.

COLOR: Colorless FRAGRANCE: Fresh & Clean DILUTION: Aerosol pH:10.0-10.5 USDA:C1

### A00223 SURFACE DISINFECTANT

This product is truly unique. The advanced formula is a quat/phenolic alcohol blend of active ingredients to provide maximum range in broad spectrum disinfection. It is effective against the hospital trio, HIV, TB, Influenza A2, Herpes I and II, mold, mildew, and more. This formula is nonflammable for added safety and the fresh and clean fragrance makes it an effective deodorizer. Truly, our best product. 20 ounce can.

COLOR: Colorless FRAGRANCE: Fresh&Clean DILUTION: Aerosol pH:10.0-10.6 USDA:C1

### A00224 SURFACE DISINFECTANT II

This product is a lemon fresh version of A00223. It has all of the same performance, features, and label claims. 20 ounce can.

COLOR: Colorless FRAGRANCE: Lemon DILUTION: Aerosol pH:10.0-0.6 USDA:n/a

## Bath and Bowl Cleaners

### B00921 BIODET NA

This outstanding non-acid product is a dual quat germicidal bowl and bath cleaner. The aggressive surfactant/detergent system and powerful solvents quickly and easily dissolve soap scum, grease, dirt, and deposits. The light foam allows ease of use on vertical surfaces and the pleasant lemon fragrance deodorizes areas as well as cleans. A rare EPA registration, this product kills the hospital trio of staph, pseudomonas, and salmonella along with HIV and TB.

COLOR: Green FRAGRANCE: Fresh&Clean DILUTION: RTU pH:11.5-12.5 USDA:n/a

### B00927 BIODET CA

A concentrated acid bowl cleaner, this germicidal formula quickly and easily removes scale, build up, deposits, and more from most bowl surfaces. Ideal for use in the most rigorous applications, the 20% HCl product is both a powerful cleaner and an effective germicide against the hospital trio of staph, pseudomonas, and salmonella.

COLOR: White FRAGRANCE: Sharp Acid DILUTION: RTU pH:<1.0 USDA:n/a

### B00931 BIODET LA

A light acid bowl cleaner, this germicidal formula is an effective multipurpose bathroom and bowl cleaner to remove light scale, build up, deposits, and more. The product contains 8.5% HCl and is both a versatile cleaner and an effective germicide against the hospital trio of staph, pseudomonas, and salmonella.

COLOR: Blue FRAGRANCE: Mint DILUTION: RTU pH:<1.0 USDA:n/a