PROPER DISINFECTING

bestshotpet.com
1.800.735.5251

With COVID-19 looming over our lives and grooming salons, our daily hygiene regiment is more critical than ever!

Improperly distinguishing between Cleaning, Sanitizing, Disinfecting can put you, the animals, and others in danger.

Myths about disinfecting

- *Cleaning and Disinfecting are the same thing*
- *"Faster" means better*
- *All disinfectants work the same*
- *Disinfectants are all toxic*
- *Using more disinfectant is stronger*

All of the myths above are FALSE

Know the Difference

1) CLEANING removes dust, debris and dirt from a surface by scrubbing, washing and rinsing.

2) SANITIZING reduces bacteria on surfaces and in laundry as identified on product's label.

3) DISINFECTING destroys or inactivates both bacteria and viruses on hard, nonporous surfaces as identified on product's label.

Valuable Resources:

- **CDC** *(Center for Disease Control)* https://www.cdc.gov/
- **EPA** *(Environmental Protection Agency)* https://www.epa.gov/
- COVID-19 ***"N-LIST"*** *As of March 13th EPA published it's N-List for disinfectants that are effective against the novel coronavirus that cause COVID-19.*
https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2

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- **Chemical compositions of disinfectants will vary as will the make-up of the pathogen types being targeted**
  (bacteria, fungi, spores, protozoa, viruses)
- **Know how to use disinfectants properly**
- **Verify what your currently doing actually kills the pathogens infecting your working environment**
  Examples: Parvovirus, MRSA, Giardia, Influenza, COVID-19, H1N1, etc.

CRITERIA FOR DISINFECTING

1) EFFICACY

• Killing efficiency against viruses, bacteria, fungi, etc.
• Will it kill the target pathogen you want? The higher the log kill, the better. 99.9% = 3 log, 99.99% = 4 log, 99.999% = 5 log, 99.9999% = 6 log, followed by sterilization (100%).
*• Ask for an efficacy test summary when in doubt****

2) CONTACT TIME

• a.k.a. dwell time, is the most important factor.
• How long does a product need to stay wet to accomplish its end kill rate?
• Most dwell times are 10 minutes or longer.

3) ECONOMY

• You get what you pay for.
• Is it Ready To Use, or a concentrate?
example 32:1, 64:1, 128:1, 256:1?

4) EFFECT ON FABRIC, METALS, OTHER SURFACES

• Will the product, stain, weaken, or cause corrosive actions?
• What is the pH level of product? Is it Neutral, Acidic, or Alkaline

5) STORAGE, STABILITY, HAZARDS, ENVIRONMENTAL CONCERNS, TOXICITY

• Look to manufacturer's Safety Data Sheets for usage and handling considerations.
• VENTILATION is vital when disinfecting salons and kennels!

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COMMON DISINFECTANTS USED BY GROOMERS & KENNELS

1) **HYPOCHLORITES (BLEACH)** Chlorine can be effective against bacteria and many viruses. Chlorine compounds are good disinfectants on clean surfaces, but are quickly inactivated by dirt. Surfaces must be pre-cleaned, and work best in warm water rather than cold. Chlorine is corrosive to metal and will damage floor finishes, carpets, clothing and other fibers when used in higher concentrations. Mixing it with ammonia, ammonium quaternary compounds, and other acidic products can create poisonous gas. An unopened bottle of Chlorine bleach has a shelf life of up to 1 year from manufacturing.
2) **PHENOLS** Phenol (carbolic acid) is one of the oldest antiseptic agents. It is a bactericidal/fungicidal and non-corrosive. The bactericidal activity is enhanced by warm temperatures and stinted by cold. It is inhibited by alkaline mediums such as lipids and soaps. Concentrations >0.5% exert a local anesthetic effect, whereas a 5% solution is strongly irritating and corrosive to tissues. 2% solutions are toxic to animals. They have a 30 day shelf life once diluted.
3) **OXIDIZING AGENTS** Accelerated Hydrogen Peroxide formulations (AHP's) are synergistic blends of hydrogen peroxide with anionic and nonionic surfactants and stabilizers that possess broad-spectrum antimicrobial activity. They are effective against bacteria, spores, mycobacteria (like TB or leprosy), viruses, and fungi. They have notable short contact times of 3 to 5 minutes; Surfaces must be pre-cleaned before treating to be effective. They are less likely to irritate eyes and skin, and are very biodegradable, decomposing to water and oxygen with no active chemical residues. Their pH of 1.5 to 3.0, making them somewhat corrosive. In general they are more costly to use. The typical shelf life is about 2 years, 30 days once diluted.
4) **QUATERNARY AMMONIUM COMPOUNDS** QAC's, aka "Quats", can be used as a "One-Step" cleaner, deodorizer and disinfectant. They are typically highly concentrated solutions that when diluted as instructed are very effective against a broad spectrum of bacteria, fungi and viruses thriving on non-porous surfaces. They work well in both warm and cold water, and are pH neutral which means they are non-corrosive to metal, fabric, and surfaces. Contact times vary from 5 to 10 minutes. They are EPA regulated as pesticides because of their high concentration, with some low level hazards requiring common sense precaution before use. The typical shelf life for concentrated QAC's is often more than 4-5 years, and once diluted up to 1 year. They are the most common, because they are extremely economical to use and implement. Often underutilized due to being misunderstood.
5) **NATURAL DISINFECTING AGENTS**

Include sunlight, heat, cold, air drying. The ultraviolet rays of sunlight are tremendously potent in killing some microorganisms, but unfortunately the ultraviolet rays can't pass through glass or roofs or dust. Drying from fresh air and wind will also kill many pathogens, particularly when they are exposed in the process of cleaning.

*** SAMPLE EFFICACY SUMMARY

ORGANISM LIST

DISINFECTION PERFORMANCE: This product kills the following bacteria in 10 minutes at 0.5 oz. per gal. of 400 ppm hard water {(660 ppm active)} and 5% soil on hard, non-porous surfaces:

Acinetobacter baumannii {(ATCC 19003)}
Acinetobacter lwoffi {(ATCC 9957)}
Acinetobacter lwoffi {(ATCC 15309)}
Bordetella bronchiseptica {(ATCC 10580)}
Chlamydia psittaci {(VR-125)}
Citrobacter freundii {(ATCC 8090)}
Enterobacter agglomerans {(ATCC 27155)}
Enterobacter aerogenes {(ATCC 13048)}
Enterobacter cloacae {(ATCC 13047)}
Escherichia coli {(ATCC 11229)}
Escherichia coli O157:H7 {(ATCC 35150)}
Escherichia coli {(Carbapenem Resistant)} {(CDC 81371)}
Escherichia coli {(Extended Spectrum B-Lactamase)} {(ESBL)} {(ATCC BAA-196)}
Escherichia coli {(Tetracycline Resistant)} {(ATCC 47041)}
Enterococcus faecalis {(ATCC 19433)}
Enterococcus faecalis {(Vancomycin Resistant)} {(VRE)} {(ATCC 51299)}
Enterococcus hirae {(ATCC 10541)}
Fusobacterium necrophorum {(ATCC 27852)}
Klebsiella oxytoca {(ATCC 13182)}
Klebsiella pneumoniae {(ATCC 13883)}
Klebsiella pneumoniae {(Carbapenem-Resistant) (NDM-1)} {(ATCC BAA-2146)}
Listeria monocytogenes {(ATCC 19117)}
Micrococcus luteus {(ATCC 14452)}
Micrococcus luteus {(ATCC 4698)}
Pasturella multocida {(ATCC 12947)}
Proteus vulgaris {(ATCC 9920)}
Proteus vulgaris {(ATCC 13315)
Pseudomonas aeruginosa {(ATCC 15442)}
Pseudomonas aeruginosa {(Tetracycline Resistant)} {(ATCC 27853)}
Pseudomonas cepacia {(ATCC 25416)}
Salmonella enterica {(ATCC 23564)}
Salmonella enterica {(ATCC 10708)}
Salmonella enteritidis {(ATCC 4931)}
Salmonella enterica serotype puliorum {(ATCC 19945)}
Salmonella typhi {(ATCC 6539)}
Salmonella typhimurium {(ATCC 23564)
Serratia marcescens {(ATCC 9103)}
Serratia marcescens {(ATCC 14756)}
Shigella flexneri {(ATCC 9380)}
Shigella flexneri {(ATCC 12022)}
Shigella sonnei {(ATCC 25931)}
Staphylococcus aureus {(ATCC 6538)}
Staphylococcus aureus {(ATCC 25923)}
Staphylococcus aureus {(ATCC 33586)}
Staphylococcus aureus {(ATCC 14154)}
Staphylococcus aureus {(Community Associated Methicillin Resistant)} {(CA-MRSA)} {(Genotype USA 300)}
Staphylococcus aureus {(Community Associated Methicillin Resistant)} {(CA-MRSA)} {(Genotype USA 400)}
Staphylococcus aureus {(Methicillin Resistant)} {(MRSA)} {(ATCC 33592)}
Staphylococcus epidermidis {(ATCC 14990)}
Staphylococcus epidermidis {(Ampicillin, Cefazolin, Oxacillin, Penicillin Resistant)} {(ATCC 51625)}
Streptococcus agalactiae {(ATCC 13813)}
Staphylococcus haemolyticus {(ATCC 29970)}
Streptococcus pneumoniae {(Penicillin Resistant)} {(ATCC 51915)}
Streptococcus pyogenes {(ATCC 19615)}
Streptococcus mutans {(ATCC 25175)}
Staphylococcus aureus {(Vancomycin Intermediate Resistant)} {(VISA)} {(HIP 5836)}
Vibrio cholera {(ATCC 11623)}
Yersinia enterocolitica {(ATCC 23715)}

VIRUCIDAL* PERFORMANCE: This product kills the following viruses in 10 minutes at 0.5 oz. per gal. of 400 ppm hard water {(660 ppm active)} and 5% soil on hard, non-porous surfaces:

Avian Influenza A {(H5N1)} Virus {(Reassortant Strain)} {(CDC 2006719965)}
Avian Influenza A {(H3N2)} Virus {(Avian Reassortant)} {(VR-2072)}
Cytomegalovirus {(AD-169)}
Coronavirus {(SARS-associated)} {(CDC 200300592)}
Hantavirus {(PHV)}
Hepatitis B Virus {(HBV)} {(Duck Hepatitis B Virus)}
Hepatitis C Virus {(HCV)} {(Bovine Viral Diarrhea Virus)}
Herpes Simplex Virus Type 1 {(VR-733)}
Herpes Simplex Virus Type 2 {(VR-734)}
Human Coronavirus {(VR-740)}
Human Immunodeficiency Virus Type 1 {(HIV 1)} {(AIDS Virus)}
Influenza A Virus {(H1N1)} {(Strain A/PR/8/34)}
Influenza A Virus {(H3N2)} {(Hong Kong Strain)} {(VR-544)}
Respiratory Syncytial Virus {(VR-26)}
Vaccinia Virus {(VR-119)}

ANIMAL PREMISE VIRUCIDAL* PERFORMANCE: This product kills the following viruses in 10 minutes at 0.5 oz. per gal. of 400 ppm hard water {(660 ppm active)} and 5% soil on hard, non-porous surfaces:

Avian Infectious Bronchitis Virus {(Strain Beaudette IB42)}
Avian Influenza A Virus {(H5N1)} {(Reassortant Strain)} {(CDC 2006719965)}
Avian Influenza A Virus {(H3N2)} {(Avian Reassortant)} {(VR-2072)}
Canine Coronavirus {(VR-809)}
Canine Distemper Virus {(VR-128)}
Feline Picornavirus {(VR-649)}
Infectious Bovine Rhinotracheitis Virus {(VR-188)}
Pseudorabies Virus {(VR-135)}
Swine Influenza A Virus {(H1N1)} {(Strain A/Swine/1976/31)}
Transmissible Gastroenteritis Virus {(TGE)} {(Clinical Isolate)}

This product kills the following viruses in 10 minutes at 2.25 oz. per gal. of 400 ppm hard water and 5% soil on hard, non-porous surfaces:

Canine Parvovirus** {(CPV)} {(Type 2b)}
Rabies Virus**

** *Indicates that a dilution of 2.25 oz. per gal. of water is required for this claim.*

NON-FOOD CONTACT SANITIZING PERFORMANCE: This product is an effective one-step sanitizer in 3 minutes at 0.5 oz. per gal. of 400 ppm hard water {(660 ppm active)} and 5% soil on hard, non-porous surfaces:

Klebsiella pneumoniae {(ATCC 4352)}
Staphylococcus aureus {(ATCC 6538)}

FUNGICIDAL PERFORMANCE: This product kills the following fungi in 10 minutes at 0.5 oz. per gal. of 400 ppm hard water {(660 ppm active)} and 5% soil on hard, non-porous surfaces:

Candida albicans {(ATCC 10231)}
Trichophyton mentagrophytes {(ATCC 9533)} {(Athlete's foot fungus)} {(a cause of Ringworm)}

MILDEWSTATIC PERFORMANCE This product controls the following mold for up to 7 days at 0.5 oz. per gal. of 400 ppm hard water {(660 ppm active)} and 5% soil on hard, non-porous surfaces:

Aspergillus niger {(ATCC 16404)}

EPA Registered No. 10324-141
EPA Establishment No. 81354-KY-1
a.k.a. MAQUAT 256-NHQ

Best Shot® 256 is a one-step disinfectant effective against the broadest spectrum of viruses, bacteria, mold, and mildew, including their odors when used as directed.

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1 Gallon of Concentrate makes 256 Gallons of RTU

- *Mix a gallon bucket for just 15 cents or a quart of spray for under 4 cents*

For Pet Retail Facilities, Animal Holding Areas, Veterinarian Clinics, Pet Grooming Salons, and More...

- Effective against COVID-19*****
- One gallon makes 256 gallons of cleaning solution (dilute 1/2 oz. to 1 gallon of water)
- Kills parvo, H1N1, H3N2, MRSA and more
- Cleans floors, crates & cages, tabletops, walls, etc.
- pH neutral formula disinfects combs, scissors, electric clipper blades, nail trimmers, tweezers and a variety of other salon tools
- No rinse formula leaves no unsightly floor residue
- Can be used in auto floor scrubbers or with mechanical spray devices on any non-porous surface
- Deodorizes carpet and litter boxes (but not disinfect)

Select LEMON, FRESH, WINTERGREEN, or LAVENDER Scent!
Available in gallon size containers.

ACTIVE INGREDIENTS:

Didecyl dimethyl ammonimum chloride	**10.14%**
N-Alkyl (C_{14} 50%, C_{12} 40%, C_{16} 10%)	
Dimethyl benzyl ammonimum chloride	**6.76%**
Inert Ingredients	**83.10%**
TOTAL	**100.00%**

½ oz. per gallon of water (1:256 Dilution)
2 oz. per gallon of water (1:64 Dilution) for Canine Parvovirus and Quarantine.

CAUTION: Not to be applied directly upon animals!
For cleaning and disinfecting non-porous surfaces only.

ADDITIONAL INFORMATION:
Provides area control of SARS-CoV-2 (the novel coronavirus that causes COVID-19), staph, salmonella, E. coli, Methicillin-resistant Staphylococcus aureus, bordetellabronchiseptica, canine distemper, canine influenza, feline picornavirus, infectious bovine rhinotracheitis, rabies, pseudorabies, streptococcus – even canine parvovirus! Kills viruses, bacteria, fungi, mold and mildew as it cleans, disinfects and deodorizes in one labor-saving step!

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The EPA is to be commended for its quick action to fast-track production of much needed disinfectants from private industry as of March 13th, 2020.

Like other corporate citizens, Best Shot stands with the Federal government, its suppliers, and industry peers to align and act for the greater good of our Nation, its communities, and workers.

Fully GHS Compliant
Prop 65 Compliant

EPA-REGISTERED DISINFECTANT

CONCLUSION

- **When selecting a disinfectant, choose one that targets the pathogen problem you have or are likely to have**
- **Follow the instructions and allow for full contact time before wiping, drying, or rinsing**
- **Routinely clean and disinfect Grooming & Boarding surfaces, equipment, and tools**
- **Mindful hygiene practices dramatically reduce any likelihood for infection, irritation, and outbreak**

COVID-19 has changed the way we clean and disinfect moving forward,. Embrace it!