

VELTEK ASSOCIATES, INC.

TECHNICAL DATA FILES



DECON-QUAT® 200C

5th Generation Quaternary Ammonium Solution



Product Description

DECON-QUAT 200C is a one-step fifth generation quaternary ammonium solution for use in pharmaceutical, biotechnology, and medical device manufacturing facilities, in healthcare industry, and in hospitals. **DECON-QUAT 200C** is a neutral pH and phosphate-free formulation designed to provide effective cleaning, deodorizing, and disinfection in areas where housekeeping is of prime importance of controlling the hazard of cross-contamination on treated surfaces. When used as directed at a 1:256 dilution, **DECON-QUAT 200C**, contains 660 ppm of active quaternary ammonium making it highly effective against a broad spectrum of pathogenic microorganisms including bacteria, antibiotic resistant bacteria, mold and mildew. **DECON-QUAT 200C** is effective in hard water up to 400 ppm hardness (Calculated as Ca CO₃) in the presence of 5% serum contamination.

Cleaner – Disinfectant – Non-Food Contact Sanitizer – Deodorizer

DECON-QUAT 200C is filled in ISO 5 (Grade A/B, Former Class 100), filtered at 0.2 microns, and subsequently terminally sterilized to 10⁻⁶ sterility assurance level. Each lot of **DECON-QUAT 200C** is sterility tested according to current USP Compendium, is completely traceable, and has been completely validated for sterility and shelf life. **DECON-QUAT 200C** is delivered each time with lot specific Certificate of Analysis, Certificate of Sterility, and Certificate of Irradiation.

DECON-QUAT 200C is available in multiple container sizes including a 1 gallon and 16 oz trigger spray. **DECON-QUAT 200C** 1 gallon and 16 oz containers come in our one-step, ready-to-use SimpleMix[®] System that allows for exact and fresh formulations each and every time without handling the concentrate. Each sterile container of **DECON-QUAT 200C** is individually double bagged and packaged in two liner bags using the ABCD Cleanroom Introduction System[®].

Quality and Manufacturing

- Filled in an ISO 5 (Grade A/B, Former Class 100)
- Filtered at 0.2 microns
- Components are air washed with 0.2 micron filtered air before assembly
- Gamma irradiated 10⁻⁶ SAL
- Lot sterility tested according to current USP compendium
- Completely traceable from start to finish
- Completely validated for sterility and shelf life

DECON-QUAT 200C – 5 th Generation Quaternary Ammonium Solution			
Certificate of Analysis	Specifications		
pH:	6.0 - 10.5		
Assay:	16.9 – 17.7%		
Appearance:	Clear, colorless straw colored liquid		
Expiration Period:	2 years		

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Uses

DECON-QUAT 200C is for use on hard, non-porous washable surfaces in cosmetic manufacturing facilities, medical device manufacturing facilities, biotechnology firms, pharmaceutical manufacturing facilities, computer manufacturing sites, industrial sites, healthcare facilities, hospitals, and laboratories. General hard, non-porous surfaces include floors, finished floors, walls, ceilings, fixtures, counters, countertops, sinks, tub surfaces, non-food contact equipment, appliances, glass surfaces, aluminum, brass, copper, laminated surfaces, non-medical metal, non-medical plated or stainless steel, glazed porcelain, glazed tile, glazed ceramic, sealed granite, sealed marble, plastic (such as polycarbonate, polyvinylchloride, polystyrene, or polypropylene), sealed limestone, sealed slate, sealed stone, sealed terra cotta, sealed terrazzo, chrome, vinyl, Plexiglas®, enameled surfaces, Formica, windows, and mirrors.

Features and Benefits

- Canadian Drug Identification Number (DIN 02374919)
- USP EPA registered; EPA Registration Number: 10324-141-68959
- Each sterile container is double bagged in easy tear packaging
- Quadruple bagged in the ABCD Cleanroom Introduction System[®]
- Delivered with lot specific Certificate of Analysis, Certificate of Irradiation, and Certificate of Sterility
- Available in our convenient, one-step, ready-to-use, SimpleMix System
- Individually labeled with lot number and expiration
- Multiple convenient container sizes –16oz and 1 Gallon, sterile
- Proven one-step disinfectant, cleaner, sanitizer, fungicide, mildewstat, and virucide when used as directed
- Effective in hard water up to 400 ppm hardness (calculated as Ca CO₃) in the presence of 5% soil
- Meets OSHA Bloodborne Pathogen Standard for HIV, HBV, and HCV
- Kills Avian Influenza A Virus
- Effective fungicide against Aspergillus niger
- One-step hospital-use germicidal disinfectant
- No-rinse disinfectant cleaner that disinfects, cleans, and deodorizes in one labor-saving step
- Neutral pH, chemically balanced, contains no fragrances, and contains no phosphorous
- Will not harm most surfaces and will not leave grit or soap scum
- Contains no abrasives so it will not scratch surfaces; non-dulling to floors

ABCD Cleanroom Introduction System®

The ABCD Cleanroom Introduction System is a packaging system that allows operators/users to take the package through each level of classified areas by simply removing a bag. Each bag acts as barrier protecting the finished product from becoming a carrier of viable and non-viable contamination. This prevents the need to decontaminate the outer bag prior to entering a cleaner area. In this packaging system each container is individually packaged into two easy tear bags, and all the individually packaged containers are then bulk packaged into two additional bags.

The SimpleMix® System Technology Alternative

Veltek Associates, Inc. has developed the patented SimpleMix System Technology to eliminate measuring and additional containers. It provides for the transfer of the sterile concentrated disinfectant or sporicide and sterile water in a sealed container to the aseptic area. The system container is double bag packaged for easy transfer and eliminates all internal and external sterility concerns. The patented SimpleMix System Gallon, 16oz, and 200L systems provide a sealed multi-chamber container that when activated mixes the solution to the correct use dilution.



The opening on the top of the gallon size contains the concentrate and the bottom reservoir contains the VAI WFI Quality Water. For the 16oz Simple Mix trigger spray, the side container houses the concentrate and the bottom reservoir houses the VAI WFI Quality Water. Just open the small chamber cap, push the plunger container completely down until the bottom pops open and the bellows are compressed. 200L SimpleMix systems are activated through a hose and valve system connecting the cubicontainer of concentrate to the VAI WFI Quality Water. The solution and water mix together. The system design permits the easy transfer of the product to the aseptic manufacturing area without concern for the transfer of contamination.

Ordering Information

DECON-QUAT 200C – 5 th Generation Quaternary Ammonium Solution				
Part number	Description	Qty/cs		
DQ200C-02-C	DECON-QUAT 200C, 1 Gallon Concentrate, Sterile	4		
DQ200C-04-2Z-C	DECON-QUAT 200C, 1 Gallon SimpleMix, Sterile	4		
DQ200C-06-16Z-01-C	DECON-QUAT 200C, 16 oz SimpleMix, Attached Trigger, Sterile	12		







DQ200C-02-C

DQ200C-04-2Z-C

DQ200C-06-16Z-01-C



VAI Product Label Colors

Product Name	Bottle/Can Color	Label Background Color	Bar & User Info Color	Text Color
DECON-AHOL WFI FORMULA 70% AEROSOL	COOL GREY	PRINTED CAN COOL GREY		
DECON-AHOL WFI FORMULA 70% TRIGGER SPRAY, 1 & 5 GALLON	WHITE	COOL GREY		
DECON-AHOL WFI FORMULA 70% SQUEEZE BOTTLE	WHITE SEMI-TRANSPARENT	COOL GREY		
DECON-AHOL WFI FORMULA 70% ASEPTI-CLEANSE BOTTLE	WHITE SEMI-TRANSPARENT	COOL GREY		
DECON-AHOL WFI FORMULA 60%	WHITE	COOL GREY		
DECON-AHOL WFI FORMULA 91%	WHITE	COOL GREY		
DECON-AHOL FORMULA 99%	WHITE	COOL GREY		
STER-AHOL WFI AEROSOL	WHITE	PRINTED CAN WHITE		
STER-AHOL WFI TRIGGER SPRAY, 1 & 5 GALLON	WHITE	WHITE		
DECON-HAND STERILE	WHITE SEMI-TRANSPARENT	PRINTED BOTTLE		
DECON-HAND NON-STERILE	CLEAR	PRINTED BOTTLE		
DECON-HAND ASEPTI-CLEANSE BOTTLE	WHITE SEMI-TRANSPARENT	WHITE		
STERI-OIL	WHITE	WHITE		
STERI-BUFFER	CLEAR	WHITE		
DECON-PHENE	WHITE	WHITE		
DECON-CYCLE	WHITE	WHITE		
DECON-CLEAN	WHITE	WHITE		
DECON-QUAT 100	WHITE	WHITE		
DECON-QUAT 200C	WHITE	WHITE		
DECON-QUAT 200V	WHITE	WHITE		
HYPO-CHLOR 0.25%	WHITE	WHITE		
HYPO-CHLOR 0.52%	WHITE	WHITE		
HYPO-CHLOR 5.25%	WHITE	WHITE		
HYPO-CHLOR Neutral 0.25%	WHITE	WHITE		
HYPO-CHLOR Neutral 0.52%	WHITE	WHITE		
STERI-PEROX 3%	WHITE	WHITE		
STERI-PEROX 6%	WHITE	WHITE		
DECON-SPORE 200 PLUS (SPORICIDE)	WHITE SEMI-TRANSPARENT	WHITE		
DECON-SPORE 200 PLUS (DISINFECTANT)	WHITE SEMI-TRANSPARENT	WHITE		
STEEL-BRIGHT	WHITE	WHITE		
STERI-SILICON	WHITE	BLACK		
DECON-GLASS	WHITE	WHITE		
VAI WFI QUALITY WATER	WHITE	WHITE		
STERI-WATER	WHITE	WHITE		



PRODUCT LABELING

DECON-QUAT® 200C 5th Generation Quaternary Ammonium Solution

(Any specific product label is available upon request.)





DECON-QUAT 200C Family of Products

DECON-QUAT® 200 C

DECON-QUAT 200 ® MCC

Hard Surface Disinfectant and Deodorant For Use in Clean Rooms and Controlled Areas

Aseptically Filtered at 0.2 µm

Active Ingredients: Didecyl Dimethyl Ammonium Chloride,	
Other Ingredients: USP purified water or water for injection CAS# 7732-18-5 Total	

KEEP OUT OF REACH OF CHILDREN CAUTION



Store at room temperature.
Read the label and leaflet before using.

See other panel for first aid and additional precautions

Canadian DIN: 02374919

Container and Product Packaged by: Veltek Associates, Inc. 15 Lee Blvd., Malvern, PA USA 19355 – 1234 Tel: 610-644-8335, Fax: 610-644-8336, www.sterile.com

In Canada, distributed by:

Canada Clean Room (CCR) www.ccrkanata.com, phone #613-591-0044

Refer to product leaflet for complete distributor contact information See container for lot number and storage expiration date

Made in the USA



FIRST AID*

Have the product container or label with you when calling poison control 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 poison control 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 poison control or doctor for treatment advice.

IF SWALLOWED: Call poison control 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 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 poison control or doctor for further treatment advice.

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

EMERGENCIES – For Spill/Exposure/Poison Control Emergency Response Service from the US and Canada in English, French and Spanish (and 23 other languages), call CARECHEM24 at 866-928-0789. For Arabic call 011-44-1235-239-671, for Chinese call 011-86-10-5100-3039.

PRECAUTIONS KEEP OUT OF REACH OF CHILDREN -CORROSIVE

PHYSICAL AND CHEMICAL HAZARDS: Causes irreversible eye damage and skin burns. Harmful if swallowed, inhaled or absorbed through the skin. Do not get in eyes on skin or on clothing. Wear goggles or face shield, rubber (chemical resistant) gloves and protective clothing when handling. If ventilation is not sufficient to effectively prevent buildup of vapors, use appropriate NIOSH/MSHA air respirators. Eyewash fountain and emergency showers recommended. Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco. Remove contaminated clothing and wash clothing before reuse.

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

DIRECTIONS FOR USE:

Read the label and leaflet before using. Also see leaflet for additional helpful information about mixing, specific uses and direction for general uses.

This product is to be used only in accordance with the directions on the label. It is an offence to use this product in a way that is inconsistent with the directions on the label. The user assumes the risk to persons or property that arises from any such use of this product. This product is a one-step neutral disinfectant that is effective against a broad spectrum of bacteria and inhibits the growth of mold and mildew and their odors when used as directed.

This product is <u>NOT</u> to be used as a terminal sterilant / high-level disinfectant on any surface or instrument that (1) is introduced directly into the human body, either into or in contact with the bloodstream or normally sterile areas of the body, or (2) contacts intact mucous membranes but which does not ordinarily penetrate the blood barrier or otherwise enter normally sterile areas of the body. This product may be used to pre-clean or decontaminate critical or semi-critical medical devices prior to sterilization or high-level disinfection.

LOCATIONS OF USE:

This product is designed for use on non-food contact hard, non-porous environmental surfaces, such as: vinyl, painted surfaces, plastic, glazed ceramic, glazed porcelain, chrome, stainless steel, aluminum, laminated surfaces and baked enamel surfaces, glazed tile, or any washable non-food contact surface where disinfection is required, such as in biopharmaceutical, pharmaceutical, medical device and diagnostic manufacturing facilities, as well as in non-food areas of hospitals and healthcare institutions. This product may be used to disinfect non-food contact, non-porous, inanimate, hard surfaces in areas such as: filling and gowning rooms, general manufacturing areas, healthcare rooms and laboratories. It may be used on a wide variety of hard surfaces. Do not use on food contact surfaces, such as, glasses, dishes and utensils.



Use this product on finished floors, high speed burnished floors, conductive flooring, washable walls, ceilings, tables, chairs, bathroom bowls, sinks, basins, shower stalls, tubs, tiles, toilets, countertops, cabinets, garbage cans, outdoor furniture, desks, telephones, door knobs and handles, and glass surfaces including windows and mirrors.

When used as directed at a 1:256 dilution (4 ml per litre of water), this product contains 660 ppm of active quaternary ammonium making it highly effective against a wide variety (broad spectrum) of pathogenic microorganisms (including bacteria, antibiotic resistant bacteria, mold and mildew).

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

Bacteria

Acinetobacter baumannii ATCC 19003 Acinetobacter Iwoffi ATCC 9957 Citrobacter freundii ATCC 8090 Enterobacter agglomerans ATCC 27155 Enterococcus faecalis ATCC 19433 Escherichia coli ATCC 11229

Fusobacterium necrophorum ATCC 27852 Klebsiella pneumoniae ATCC 13883 Micrococcus luteus ATCC 14452 Pasturella multocida ATCC 12947 Proteus vulgaris ATCC 9920 Pseudomonas cepacia ATCC 25416 Salmonella choleraesuis ATCC 23564

Salmonella choleraesuis serotype pullorum ATCC 19945

Salmonella typhi ATCC 6539 Serratia marcescens ATCC 14756 Shigella flexneri ATCC 12022 Shigella sonnei ATCC 25931 Staphylococcus aureus ATCC 14154

Methicillin Resistant Staphylococcus aureus (MRSA) ATCC 33592

Staphylococcus aureus sub species aureus ATCC 33586 Antibiotic resistant Staphylococcus epidermidis ATCC 51625 Streptococcus pneumonia Penicillin Resistant ATCC 51915

Streptococcus pyogenes ATCC 19615

Tetracycline Resistant Pseudomonas aeruginosa ATCC 27853

Vibrio cholera ATCC 11623

<u>Viruses</u>

Avian Infectious Bronchitis virus Beaudette IB42 Canine Coronavirus Feline Picornavirus ATCC VR-649

Herpes Simplex Virus Type 1 ATCC VR-773
Human Immunodeficiency Virus type 1 (HIV 1)
Infectious Bovine Rhinotracheitis virus ATCC VR-188

Pseudorabies virus ATCC VR-135

Transmissible Gastroenteritis virus

Acinetobacter Iwoffi ATCC 15309 Bordetella bronchiseptica ATCC 10580 Enterobacter aerogenes ATCC 13048 Enterobacter cloacae ATCC 13047 Chlamydia psittaci ATCC VR-125

Escherichia coli Tetracycline Resistant ATCC 47041

Klebsiella oxytoca ATCC 13182 Listeria monocytogenes ATCC 19117 Micrococcus luteus ATCC 4698 Proteus vulgaris ATCC 13315

Pseudomonas aeruginosa ATCC 15442
Salmonella choleraesuis ATCC 10708
Salmonella choleraesuis ATCC 4931
Salmonella enteritidis ATCC 4931
Serratia marcescens ATCC 9103
Shigella flexneri ATCC 9380
Staphylococcus aureus ATCC 6538
Staphylococcus aureus ATCC 25923
Staphylococcus epidermidis ATCC 14990
Staphylococcus haemolyticus ATCC 29970
Streptococcus agalactiae ATCC 13813

Vancomycin Resistant Enterococcus faecalis (VRE)

ATCC 51299

Vancomycin Intermediate Resistant Staphylococcus

aureus (VISA) ATCC 5836 Yersinia enterocolitica ATCC 23715

Human Coronavirus Canine Distemper virus ATCC VR-128 Herpes Simplex Virus Type 2 ATCC VR-734

Influenza A virus ATCC VR-544 Respiratory syncytial virus ATCC VR-26 Vaccinia virus ATCC VR-119

Fung

When used as directed at a 1:256 dilution (or equivalent use dilution), this product is highly effective against the following: Aspergillus niger (ATCC 16404)

PREPARATION OF USE SOLUTION:

For water hardness up to 400 ppm first dilute DECON-QUAT 200 C concentrate prior to use with de-ionized or tap water. Dilute by adding 4 mL DECON-QUAT 200 C concentrate to 1 Liter of water, (1:256 dilution) or equivalent to make larger or smaller proportions. Tip the container side to side for a few seconds to mix.

DISINFECTION:

To disinfect hard non-porous surfaces, treated surfaces must remain wet for 10 minutes. This product can be applied by mop, sponge, cloth, paper towel, (hand pump) coarse trigger sprayer, auto scrubber or foam gun (device). Change cloth, sponge or towels frequently to avoid re-deposition of soil. For heavily soiled areas, a preliminary cleaning is required.

For sprayer applications use a coarse spray device. Spray 15 cm - 20 cm from surface, rub with brush, sponge or



cloth. Do not breathe spray. For disinfection, all surfaces must remain wet for 10 minutes. Rinse all surfaces that come in contact with food with potable water before reuse. Wear personal protection such as eye protection goggles or face shield. Wear chemical resistant gloves. Use with adequate ventilation and spray away from eyes and face. Do not replace excess mixed product back into original container after use or after removal from original container, even if it was not used.

Also see leaflet for additional helpful information about mixing, specific uses and direction for general uses.

Storage and Disposal:

Do not contaminate water, food, or feed by storage and disposal.

Storage: Store in original container in areas inaccessible to children. Do not store on side. Avoid creasing or impacting of side walls. Store at room temperature in a dry cool place.

Disposal: Product and product wastes are toxic. Follow Provincial regulations and Local/Municipal ordinances when disposing of this product. Improper disposal of excess product or container rinsate is a violation of Provincial Laws. If wastes cannot be disposed of by use according to label instructions, contact your Provincial or Local/Municipal environmental control agency for guidance.

Container Disposal: Non-refillable container. Do not reuse empty container. Wrap and discard in trash (or recycle). Then offer for recycling or incineration, or if allowed by provincial and local authorities, by burning. If burned, stay out of smoke.

ALTERNATE CONTAINER/DELIVERY SYSTEMS

SIMPLEMIX® SYSTEM CONTAINER:

Trigger Spray Bottle lid label:

- 1. To prepare use solution, open cap.
- 2. Peel off inner seal by grasping tab at far edge and pulling off.
- 3. Firmly push small, inner container completely down.
- 4. Replace cap and tighten.
- 5. Slowly swirl for 15 seconds.
- 6. Move spray nozzle to open position.
- 7. Follow directions for use on label.

See page 12 for pictorial directions.

Gallon Size Bottle lid label:

- 1. To prepare use solution, open cap.
- 2. Peel off inner seal by grasping far edge and pulling off.
- 3. Firmly push small, inner container completely down.
- 4. Replace cap and tighten.
- 5. Slowly swirl for 15 seconds.
- 6. Open small side spout and peel off inner seal, as above.
- 7. Pour solution from small side spout onto surfaces to be treated or alternate containers.
- 8. Follow directions for use on label.

See page 13 for pictorial directions.





200 Liter Drum Lid Label:

- 1. Close all valves.
- 2. Uncoil hoses.
- 3. Connect center hose to pump between X and Y.
- 4. Open valve 1, then valve 2, then valve 4.
- 5. START pump to empty cubic container.
- 6. When cubic container is empty, turn pump OFF.
- 7. Close valve 1 and valve 2.
- 8. Open valve 6 and valve 5.
- 9. Re-start pump and mix 15 minutes
- 10. STOP pump.
- 11. Close valve 4.
- 12. To dispense Open valves 3 and 7. Run pump only when dispensing.
- 13. Follow directions for use on label.

See page 14 for pictorial directions.





16 oz SimpleMix System Directions

SIMPLE 16 oz/473 mL Aseptic Mixing System

For the Exact Formulation of 16 oz/473 mL Disinfectants and Sporicides

Ready-to-Use Mixing Instructions

To prepare use solution, open cap.
 Peel off inner seal by grasping tab at far edge and pulling off.



3) Firmly push small, inner container all the way down.



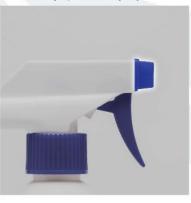
4) Replace cap and tighten.



5) Slowly swirl for 15 seconds.



6) Move spray nozzle to open position.



7) Follow directions for use on label.





1 Gallon SimpleMix System Directions



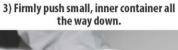
For the Exact Formulation of 1 Gallon/3.79 L Size Disinfectants and Sporicides

Ready-to-Use Mixing Instructions

1) To prepare use solution, open cap.
2) Peel off inner seal by grasping tab at far edge and pulling off.



4) Replace cap and tighten.





5) Slowly swirl for 15 seconds.



6) Open small side spout and peel off inner seal, as above.



7) Pour solution from small side spout onto surfaces to be treated or alternate containers.



8) Follow directions for use on label.



200L SimpleMix System Directions

SIMPLE 200 L Aseptic Mixing System

For Large Scale Aseptic Manufacturing Environments

Ready-to-Use Mixing Instructions

Remove drum from double-bag packaging.



Remove cubic container from top of drum. 1) Close all valves. 2) Uncoil hoses.



3) Connect center hose to pump between X and Y.



4) Open valve 1, then valve 2, then valve 4.



2

5) START pump to empty cubic container. 6) When cubic container is empty, turn pump OFF.



7) Close valve 1 and valve 2.



8) Open valve 6 and valve 5.



Re-start pump and mix 15 minutes.
 Stop pump.



13) Follow directions for use on label.

11) Close valve 4. 12) To dispense- Open valves 3 and 7. Run pump only when dispensing.





EFFICACY TEST SUMMARY

DECON-QUAT® 200C 5th Generation Quaternary Ammonium Solution

5% soil on hard,	non-porous surfaces:
Acinetobacter baumannii (ATCC 19003)	Salmonella choleraesuis serotype pullorum (ATCC 19945)
Acinetobacter lwoffi (ATCC 9957)	Salmonella choleraesuis ATCC 10708
Acinetobacter lwoffi (ATCC 15309)	Salmonella choleraesuis ATCC 4931
Bordetella bronchiseptica (ATCC 10580)	Salmonella enteritidis (ATCC 4931)
Chlamydia psittaci (ATTC 125)	Salmonella typhi (ATCC 6539)
Citrobacter freundii (ATCC 8090)	Serratia marcescens (ATCC 9103)
Enterobacter agglomerans (ATCC 27155)	Serratia marcescens (ATCC 14756)
Enterobacter aerogenes (ATCC 13048)	Shigella flexneri (ATCC 9380)
Enterobacter cloacae (ATCC 13047)	Shigella flexneri (ATCC 12022)
Escherichia coli (ATCC 11229)	Shigella sonnei (ATCC 25931)
Escherichia coli Tetracycline Resistant (ATCC 47041)	Staphylococcus aureus (ATCC 6538)
Enterococcus faecalis (ATCC 19433)	Staphylococcus aureus (ATCC 25923)
Enterococcus faecalis (Vancomycin Resistant) (VRE) (ATCC 51299)	Staphylococcus aureus (ATCC 33586)
Fusobacterium necrophorum (ATCC 27852)	Staphylococcus aureus (ATCC 14154)
Klebsiella oxytoca (ATCC 13182)	Staphylococcus aureus (Methicillin Resistant) (MRSA (ATCC 33592)
Klebsiella pneumonia (ATCC 13883)	Staphylococcus epidermidis (ATCC 14990)
Listeria monocytogenes (ATCC 19117)	Staphylococcus epidermidis (Ampicillin, Cefazolin, Oxacillin, Penicillin Resistant) (ATCC 51625)
Micrococcus luteus (ATCC 14452)	Streptococcus agalactiae (ATCC 13813)
Micrococcus luteus (ATCC 4698)	Staphylococcus haemolyticus (ATCC 29970)
Pasturella multocida (ATCC 12947)	Streptococcus pneumoniae (Penicillin Resistant) (ATC 51915)
Proteus vulgaris (ATCC 9920)	Streptococcus pyogenes (ATCC 19615)
Proteus vulgaris (ATCC 13315)	Vancomycin Intermediate Resistant Staphylococcus aure (VISA) ATCC 5836
Pseudomonas cepacia (ATCC 25416)	Vibrio cholera (ATCC 11623)
Pseudomonas aeruginosa (ATCC 15442)	Yersinia enterocolitica (ATCC 23715)
Tetracycline Resistant Pseudomonas aeruginosa ATCC 27853	Salmonella choleraesuis (ATCC 23564)



DECON-QUAT 200C kills the following <i>viruses</i> in 10 minutes at 0.5 oz. per gal. of water at 660 ppm active and 5% soil on hard, non-porous surfaces:				
Avian Infectious Bronchitis virus Beaudette IB42	Human Immunodeficiency Virus type 1 (HIV 1)			
Canine Coronavirus Infectious Bovine Rhinotracheitis virus ATCC VR-18				
Canine Distemper virus ATCC VR-128	Influenza A virus ATCC VR-544			
Feline Picornavirus ATCC VR-649 Pseudorabies virus ATCC VR-135				
Herpes Simplex Virus Type 1 ATCC VR-773 Respiratory syncytial virus ATCC VR-26				
Human Coronavirus (VR-740) Transmissible Gastroenteritis virus				
Vaccinia virus ATCC VR-119				

DECON-QUAT 200C controls the following *mold* in 10 minutes at 0.5 oz. per gal. of water at 660 ppm active on hard, non-porous surfaces:

Aspergillus niger (ATCC 16404)

Summary of Antimicrobial Test Results

Hospital Disinfection (at ½ ounce per gallon)

This product is bactericidal according to the AOAC Use Dilution Test method on hard inanimate surfaces modified in the presence of 5% organic serum and 400 ppm hard water at ½ ounce of this product per gallon of water (660 ppm active). Treated surfaces must remain wet for 10 minutes.

(Testing is performed per the AOAC UDT/GST method (DIS/TSS-1). Sixty carriers are required on 3 separate lots, one of which must be > 60 days old against *Pseudomonas aeruginosa*, *Salmonella enterica* and *Staphylococcus aureus*. Killing of 59 out of 60 carriers is required (total carriers = 540).)

Organism	Carrier Population	Sample	# Carriers	# Positive
David and a service and		A (60 Days Old)	60	0/60
Pseudomonas aeruginosa ATCC 15442	3.9 X 10 ⁴ CFU/Carrier	В	60	0/60
		С	60	1/60
Salmonella choleraesuis	6	A (60 Days Old)	60	1/60
ATCC 10708	1.03 X 10 ⁶ CFU/Carrier	В	60	1/60
		C	60	0/60
Staphylococcus aureus		A (60 Days Old)	60	0/60
Staphylococcus aureus ATCC 6538	7.0 X 10 ⁴ CFU/Carrier	В	60	0/60
		С	60	0/60



Supplemental Organisms

(Testing is performed per the AOAC UDT/GST method. Ten carriers are required on 2 separate lots against each supplemental organism. Killing of 10 out of 10 carriers is required (total carriers = 20).)

Organism	Carrier Population	Sample	# Carriers	# Positive
	·	A	10	0/10
Acinetobacter baumannii ATCC 19003	5.1 x 10 ⁶ CFU/Carrier	В	10	0/10
A	5.7 105 OPILIO	A	10	0/10
Acinetobacter lwoffi ATCC 15309	5.7 x 10 ⁵ CFU/Carrier	В	10	0/10
Acinetobacter lwoffi ATCC 9957	4.0 x 10 ⁵ CFU/Carrier	A	10	0/10
nemerobacier twojji MTCC 7731	4.0 X 10 CI C/Carrier	В	10	0/10
Bordetella bronciseptica ATCC 10580	9.4 x 10 ⁶ CFU/Carrier	A	10	0/10
ı		В	10	0/10
Citrobacter freundii ATCC 8090	3.9 x 10 ⁵ CFU/Carrier	A B	10 10	0/10 0/10
		A	10	0/10
Enterobacter aerogenes ATCC 13048	2.35 x 10 ⁷ CFU/Carrier	В	10	0/10
	_	A	10	0/10
Enterobacter agglomerans ATCC 27155	3.9 x 10 ⁵ CFU/Carrier	В	10	0/10
		A	10	0/10
Enterobacter cloacae ATCC 13047	3.3 x 10 ⁷ CFU/Carrier	В	10	0/10
		A	10	0/10
Enterococcus faecalis ATCC 19433	6.2 x 10 ⁵ CFU/Carrier	В	10	0/10
E. C. L. Manager in Braintain		A	10	0/10
Enterococcus faecalis Vancomycin Resistant (VRE) ATCC 51299	1.3 x 10 ⁷ CFU/Carrier			
(VKL) ATCC 31239		В	10	0/10
Escherichia coli ATCC 11229	1.3 x 10 ⁷ CFU/Carrier	A	10	0/10
T. J. J. J. W. T. W. D. J. W. T. G.		В	10	0/10
Escherichia coli Tetracycline Resistant ATCC 47041	3.1 x 10 ⁵ CFU/Carrier	A	10	0/10
47041		В	10	0/10
Fusobacterium necrophorum ATCC 27852	5.8 x 10 ⁵ CFU/Carrier	A	10	0/10
		В	10	0/10
Klebsiella oxytoca ATCC 13182	1.07 x 10 ⁶ CFU/Carrier	A B	10	0/10
			10 10	0/10 0/10
Klebsiella pneumonia ATCC 13883	1.2 x 10 ⁶ CFU/Carrier	A B	10	0/10
Klebsiella pnemoniae (Carbapenem-Resistant)			-	
(NDM-1) (ATCC BAA-2146)	Specific testing	data and lot r	number not ava	ilable
, , , , , , , , , , , , , , , , , , ,	7.7 106 OFILIO	A	10	0/10
Listeria moncytogenes ATCC 19117	7.7 x 10 ⁶ CFU/Carrier	В	10	0/10
Micrococcus luteus ATCC 14452	1.1 x 10 ⁵ CFU/Carrier	A	10	0/10
micrococcus inieus ATCC 14432	1.1 x 10 Cro/Carrier	В	10	0/10
Micrococcus luteus ATCC 4698	4.8 x 10 ⁵ CFU/Carrier	A	10	0/10
interested in the same in the	7.0 A 10 C1 0/Carrier	В	10	0/10
Pasturella multocida ATCC 12947	1.32 x 10 ⁷ CFU/Carrier	A	10	0/10
		В	10	0/10
Proteus vulgaris ATCC 13315	1.9 x 10 ⁴ CFU/Carrier	A B	10 10	0/10 0/10
		A	10	0/10
Proteus vulgaris ATCC 9920	1.24 x 10 ⁵ CFU/Carrier	B	10	0/10
Tetracycline Resistant Pseudomonas aeruginosa	3.5 x 10 ⁶ CFU/Carrier	A	10	0/10



1mag 25252	<u></u>		4.0	0/10
ATCC 27853		В	10	0/10
Pseudomonas cepacia ATCC 25416	1.63 x 10 ⁶ CFU/Carrier	A	10	0/10
		В	10	0/10
Salmonella choleraesuis ATCC 23564	9.2 x 10 ⁴ CFU/Carrier	A	10	0/10
	3.2 h 13 SI S/ SWITTE	В	10	0/10
Salmonella enteritidis ATCC 4931	1.3 x 10 ⁶ CFU/Carrier	A	10	0/10
	The A To CI Co Cultici	В	10	0/10
Salmonella choleraesuis serotype pullorum ATCC	7.1 x 10 ⁵ CFU/Carrier	A	10	0/10
19945	7.1 X To CI C/Cullici	В	10	0/10
Salmonella typhi ATCC 6539	8.3 x 10 ⁶ CFU/Carrier	A	10	0/10
Sumonetta typiti 111 CC 0337	0.5 x 10 CI C/ Cullici	В	10	0/10
Serratia marcescens ATCC 14756	6.2 x 10 ⁶ CFU/Carrier	A	10	0/10
Serrana marcescens III CC 11750	0.2 x 10 CI C/ Cullici	В	10	0/10
Serratia marcescens ATCC 9103	6.0 x 10 ⁶ CFU/Carrier	A	10	0/10
Serrata marcescens 111 ee 7103	0.0 x 10 Ci C/Carrier	В	10	0/10
Shigella flexneri ATCC 12022	2.6 x 10 ⁴ CFU/Carrier	A	10	0/10
Shigetia ftexhert ATCC 12022	2.0 x 10 Cf C/Carrier	В	10	0/10
Shigella flexneri ATCC 9380	1.99 x 10 ⁶ CFU/Carrier	A	10	0/10
Shigelia flexhert ATCC 9380	1.99 x 10 CF 0/Carrier	В	10	0/10
Shigella sonnei ATCC 25931	1.04 x 10 ⁶ CFU/Carrier	A	10	0/10
Shigelia sonnel ATCC 23931	1.04 x 10 CF 0/Carrier	В	10	0/10
Staphylococcus aureus ATCC 14154	9.2 x 10 ⁵ CFU/Carrier	A	10	0/10
Staphylococcus dureus ATCC 14154	9.2 x 10 CFO/Carrier	В	10	0/10
Staphylococcus aureus ATCC 25923	6.6 x 10 ⁶ CFU/Carrier	A	10	0/10
Staphylococcus dureus ATCC 23323	0.0 x 10 Cr-0/Carrier	В	10	0/10
Staphylococcus aureus sub species aureus ATCC	7.2 x 10 ⁴ CFU/Carrier	A	10	0/10
33586	7.2 x 10 CFO/Carrier	В	10	0/10
Methicillin Resistant Staphylococcus aureus	5.4 x 10 ⁶ CFU/Carrier	A	10	0/10
(MRSA) ATCC 33592	3.4 x 10° CFO/Carrier	В	10	0/10
Vancomycin Intermediate Resistant Staphylococcus aureus (VISA) ATCC 5836	Specific testing	data and lot r	number not ava	ilable
	1 1 106 077710	A	10	0/10
Staphylococcus epidermidis ATCC 14990	1.56 x 10 ⁶ CFU/Carrier	В	10	0/10
Antibiotic resistant Staphylococcus epidermidis	0.6 105 677776	A	10	0/10
ATCC 51625	8.6 x 10 ⁵ CFU/Carrier	В	10	0/10
	0.5 105.077770	A	10	0/10
Staphylococcus haemolyticus ATCC 29970	9.5 x 10 ⁵ CFU/Carrier	В	10	0/10
	7.5. 406 GTT15	A	10	0/10
Streptococcus agalactiae ATCC 13813	5.6 x 10 ⁶ CFU/Carrier	В	10	0/10
Streptococcus pneumonia Penicillin Resistant	0 1 101 5	A	10	0/10
ATCC 51915	9.6 x 10 ⁴ CFU/Carrier	В	10	0/10
	. =	A	10	0/10
Streptococcus pyogenes ATCC 19615	4.7 x 10 ⁴ CFU/Carrier	В	10	0/10
		A	10	0/10
Vibrio cholera ATCC 11623	1.0 x 10 ⁶ CFU/Carrier	В	10	0/10
	A	10	0/10	
Yersinia enterocolitica ATCC 23715	1.2 x 10 ⁷ CFU/Carrier	В	10	0/10
		ע	10	0/10



Virucidal against (at 0.5 ounce per gallon)

This product was evaluated in the presence of 5% serum and 400ppm hard water with a 10 minute contact time and found to be effective against the following viruses on hard nonporous environmental surfaces.

(Testing is performed per EPA Guidance (DIS/TSS-7). Two separate lots are tested. Inactivation of virus must be demonstrated at all dilutions when no cytotoxicity is observed or at all dilutions above the cytotoxic level when it is observed. The data must demonstrate a 3-log reduction in viral titer for both lots (3 lots and 4-log reduction for Canada).

Organism	Dried Virus Control;	Sample	Result	Log Reduction
Ü		A	≤0.5 Log ₁₀	≥5.92 Log ₁₀
Avian Infectious Bronchitis virus Beaudette	6.42 Log ₁₀	В	≤0.5 Log ₁₀	≥5.92 Log ₁₀
IB42	6.5 Log ₁₀	С	≤0.5 Log ₁₀	≥6.0 Log ₁₀
		A	≤0.5 Log ₁₀	≥4.0 Log ₁₀
Canine Coronavirus	4.5 Log ₁₀	В	≤0.5 Log ₁₀	≥4.0 Log ₁₀
	4.75 Log ₁₀	С	≤0.5 Log ₁₀	≥4.25 Log ₁₀
Control Distance in a		A	≤0.5 Log ₁₀	≥5.75 Log ₁₀
Canine Distemper virus ATCC VR-128	6.25 Log ₁₀	В	≤0.5 Log ₁₀	≥5.75 Log ₁₀
ATCC VR-128	6.75 Log ₁₀	С	≤0.5 Log ₁₀	≥6.25 Log ₁₀
	4.5 Log ₁₀	A	≤0.5 Log ₁₀	≥4.0 Log ₁₀
Feline Picornavirus ATCC VR-649	4.5 L0g ₁₀	В	≤0.5 Log ₁₀	≥4.0 Log ₁₀
	5.75 Log ₁₀	C	≤0.5 Log ₁₀	≥5.25 Log ₁₀
	5.5 Log ₁₀	A	≤0.5 Log ₁₀	≥5.0 Log ₁₀
Herpes Simplex Virus Type 1 ATCC VR-773	_	В	≤0.5 Log ₁₀	≥5.0 Log ₁₀
	6.0 Log ₁₀	C	≤0.5 Log ₁₀	≥5.5 Log ₁₀
	6.0 Log ₁₀	A	≤0.5 Log ₁₀	≥5.5 Log ₁₀
Herpes Simplex Virus Type 2 ATCC VR-734	0.0 L0g ₁₀	В	≤0.5 Log ₁₀	≥5.5 Log ₁₀
	5.75 Log ₁₀	C	≤0.5 Log ₁₀	≥5.25 Log ₁₀
	4.5 Log ₁₀	A	≤0.5 Log ₁₀	≥4.0 Log ₁₀
Human Coronavirus		В	≤0.5 Log ₁₀	≥4.0 Log ₁₀
	4.5 Log ₁₀	С	≤0.5 Log ₁₀	≥4.0 Log ₁₀
Human Immunodeficiency Virus type 1 (HIV	5.75 Log ₁₀	A	≤1.5 Log ₁₀	≥4.25 Log ₁₀
1)		В	≤1.5 Log ₁₀	≥4.25 Log ₁₀
1)		С	≤1.5 Log ₁₀	≥4.25 Log ₁₀
Infectious Bovine Rhinotracheitis Virus	4.5 Log ₁₀	A	≤0.5 Log ₁₀	≥4.0 Log ₁₀
ATCC VR-188		В	≤0.5 Log ₁₀	≥4.0 Log ₁₀
	4.75 Log ₁₀	С	≤0.5 Log ₁₀	≥4.25 Log ₁₀
Influenza A virus ATCC VR-544	Specific te	esting data and lot i	number not ava	ilable
	6.25 L oc	A	≤0.5 Log ₁₀	≥5.75 Log ₁₀
Pseudorabies Virus ATCC VR-135	6.25 Log ₁₀	В	≤0.5 Log ₁₀	≥5.75 Log ₁₀
	5.5 Log ₁₀	С	≤0.5 Log ₁₀	≥5.0 Log ₁₀
	4 5 T	A	≤0.5 Log ₁₀	≥4.0 Log ₁₀
Respiratory syncytial virus ATCC VR-26	4.5 Log ₁₀	В	≤0.5 Log ₁₀	≥4.0 Log ₁₀
	5.0 Log ₁₀	С	≤0.5 Log ₁₀	≥4.5 Log ₁₀
	4.75 Log	A	≤0.5 Log ₁₀	≥4.25 Log ₁₀
Transmissible Gastroenteritis Virus	4.75 Log ₁₀	В	≤0.5 Log ₁₀	≥4.25 Log ₁₀
	6.25 Log ₁₀	С	≤0.5 Log ₁₀	≥5.75 Log ₁₀
	_	A	≤0.5 Log ₁₀	≥6.25 Log ₁₀
Vaccinia virus VR-119	6.75 Log ₁₀	В	≤0.5 Log ₁₀	≥6.25 Log ₁₀
	6.5 Log ₁₀	С	≤0.5 Log ₁₀	≥6.0 Log ₁₀



Fungicide control (at ½ ounce per gallon)

Use this product to control the growth of fungi and their odors on hard nonporous surfaces. Thoroughly wet all treated surfaces completely. Let air dry. Repeat application weekly or when growth or odors reappears.

Organism	Tile Number	Untreated After 7 Days	Sample A After 7 Days	Sample B After 7 Days
	1	Growth 90%	No Growth 0%	No Growth 0%
	2	Growth 70%	No Growth 0%	No Growth 0%
	3	Growth 90%	No Growth 0%	No Growth 0%
	4	Growth 80%	No Growth 0%	No Growth 0%
Aspergillus niger	5	Growth 80%	No Growth 0%	No Growth 0%
ATCC 16404	6	Growth 90%	No Growth 0%	No Growth 0%
	7	Growth 80%	No Growth 0%	No Growth 0%
	8	Growth 70%	No Growth 0%	No Growth 0%
	9	Growth 90%	No Growth 0%	No Growth 0%
	10	Growth 70%	No Growth 0%	No Growth 0%



1 Gallon SimpleMix DQ200C-04-2Z



Additional Documentation

Upon request, the following additional documentation is available:

- Specific Product Testing Reports
- Safety Data Sheet SDS# VEL-110
- Product Validation
- Sample lot specific documentation packages including Certificates of Sterility, Certificates of Analysis, and Certificates of Irradiation



VAI's Sterile Chemical Manufacturing Division - SCMD manufactures a complete range of cleaning agents and disinfectants that are used daily in cleanroom operations. Overall, VAI's capabilities for manufacturing products include the ability to fill aerosol, bulk, and unit dose packages in ISO 5 (Grade A/B). Our aseptic filling operations are coupled with the validated and proven ability to irradiate a final product. Assurances are taken in every aspect of SCMD concerning sterility and particulate removal. VAI's operations mirror current GMP's and enforces the adherence to USP specifications. VAI is an EPA and FDA registered facility. To learn more about our division capabilities please visit www.sterile.com.

Patents: www.sterile.com/patents