VELTEK ASSOCIATES, INC.

TECHNICAL DATA FILES



DEC-QUAT® 200C

5th Generation Quaternary Ammonium Solution

Product Description

DEC-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. **DEC-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, **DEC-QUAT 200C**, contains 660 ppm of active quaternary germicide, making it highly effective against a broad spectrum of pathogenic microorganisms including bacteria, antibiotic resistant bacteria, viruses*, fungi, mold, and mildew. **DEC-QUAT 200C** is effective in hard water up to 400 ppm hardness (Calculated as Ca CO_3) in the presence of 5% serum contamination. **DEC-QUAT 200C** meets OSHA Bloodborne Pathogen Standard for HIV, HBV, and HCV and kills Influenza A Virus.

Cleaner – Disinfectant – Non-Food Contact Sanitizer – Deodorizer – Fungicide – Mildewstat – Virucide*
*when used a directed

DEC-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 **DEC-QUAT 200C** is sterility tested according to current USP Compendium, is completely traceable, and has been completely validated for sterility and shelf life. **DEC-QUAT 200C** is delivered each time with lot specific Certificate of Analysis, Certificate of Sterility, and Certificate of Irradiation.

DEC-QUAT 200C is available in multiple container sizes including a 3.79 Liter, 473 mL trigger spray, and unit dose. **DEC-QUAT 200C** 3.79 Liter and 473 mL 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 **DEC-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

DEC-QUAT 200C – 5th 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

Uses

DEC-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

- 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 – Unit Dose, 473 mL, and 3.79 Liter either sterile or non-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 CO_3) in the presence of 5% soil
- Meets OSHA Bloodborne Pathogen Standard for HIV, HBV, and HCV
- Kills Avian Influenza A Virus H5N1, H3N2, and pandemic 2009 H1N1 Influenza A Virus (formerly called swine flu)
- Effective fungicide against *Trichophyton metagrophytes* and *Candida albicans*
- 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 3.79 Liter, 473 mL, 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 3.79 Liter size contains the concentrate and the bottom reservoir contains

the VAI WFI Quality Water. The 473 mL 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

DEC-QUAT 200C – 5th Generation Quaternary Ammonium Solution		
Part number	**Description**	**Qty/cs**
DQ200C-01-E	DEC-QUAT 200C, 3.79 Liter Concentrate, Non-Sterile	4
DQ200C-02-E	DEC-QUAT 200C, 3.79 Liter Concentrate, Sterile	4
DQ200C-03-2Z-E	DEC-QUAT 200C, 59 mL Concentrate, Unit Dose, Sterile	24
DQ200C-03-8Z-E	DEC-QUAT 200C, 237 mL Concentrate, Unit Dose, Sterile	24
DQ200C-04-2Z-E	DEC-QUAT 200C, 3.79 Liter SimpleMix, Sterile	4
DQ200C-05-2Z-E	DEC-QUAT 200C, 3.79 Liter SimpleMix, Non-Sterile	4
DQ200C-06-16Z-01-E	DEC-QUAT 200C, 473 mL SimpleMix, Attached Trigger, Sterile	12
DQ200C-07-16Z-01-E	DEC-QUAT 200C, 473 mL SimpleMix, Attached, Trigger Non-Sterile	12



DQ200C-01-E



DQ200C-03-8Z-E



DQ200C-06-16Z-01-E

VAI' Product Label Colors

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

PRODUCT LABELING

DEC-QUAT® 200C

5th Generation Quaternary Ammonium Solution

(Any specific product label is available upon request.)



DEC-QUAT 200C Family of Products

DEC-QUAT® 200 C

Disinfectant – Non-Food Contact Sanitizer – Mildewstat – Fungicide – Virucide*

ACTIVE INGREDIENTS:

Didecyl Dimethyl Ammonium Chloride……..….10.14%
Alkyl (50% C_{14},40% C_{12}, 10% C_{16})
Dimethyl Benzyl Ammonium Chloride…….……...6.76%
OTHER INGREDIENTS ……83.10%
TOTAL……..100.00%

KEEP OUT OF REACH OF CHILDREN

DANGER PELIGRO

See label below for additional precautionary statements and first aid statements.

For chemical or environmental emergencies, call CARECHEM 24 at 866-928-0789.

Made in the U.S.A.

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US and Foreign Patents, www.sterile.com/patents.

EPA Est. No. 68959-PA-01
EPA Reg. No. 10324-141-68959

DEC-QUAT 200C

DEC-QUAT 200C is a complete, chemically balanced, neutral pH, and concentrated quaternary ammonium solution that provides clear use solutions even in the presence of hard water and contains no phosphorous. **DEC-QUAT 200C** has been designed to provide effective cleaning, deodorizing, and disinfection in areas where housekeeping is of prime importance in controlling the hazards of cross-contamination. **DEC-QUAT 200C** contains no fragrances, contains no abrasives so it won't scratch surfaces, will not leave grit or soap scum, is non-dulling to floors, and will not harm most surfaces. **DEC-QUAT 200C** is a no-rinse neutral pH disinfectant cleaner that disinfects, cleans and deodorizes in one labor-saving step.

DEC-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.

DEC-QUAT 200C is a disinfectant and non-food contact surface sanitizer for Cleanroom and Laboratory areas to disinfect washable, hard, non-porous non-food contact surfaces such as: Laminar-airflow equipment and BioSafety Cabinet work surfaces and exterior surfaces of the following: countertops, sinks, plumbing fixture surfaces, incubators, Refrigerators and Centrifuge surfaces of metal, stainless steel, glass, plastic (such as polystyrene or polypropylene), Formica, and vinyl.

DEC-QUAT 200C is a germicidal disinfectant, cleaner, and deodorant designed for general cleaning, disinfecting, deodorizing, and controlling mold and mildew on hard, non-porous non-food contact surfaces. **DEC-QUAT 200C** is for use in hospitals, medical offices and clinics, healthcare facilities, medical research facilities, acute care institutions, and in patient care rooms & facilities on surfaces such as hospital beds, MRI, CAT, medical equipment surfaces, examination tables, operating tables, ultrasonic baths, whirlpools, and ambulance equipment/surfaces.

DEC-QUAT 200C is a broad spectrum disinfectant and one-step disinfectant, sanitizer, cleaner, fungicide, midewstat, and virucide that is effective in hard water up to 400 ppm hardness (calculated as Ca CO_3) in the presence of 5% soil. When used as directed at a 1:256 dilution (14.8 mL of **DEC-QUAT 200C** per 3.79 Liter of water or equivalent use dilution), **DEC-QUAT 200C** contains 660 ppm of active quaternary germicide, making it highly effective against a wide variety of pathogenic microorganisms including bacteria, antibiotic resistant bacteria, viruses, fungi, mold and mildew*. **DEC-QUAT 200C** has been found to be effective against Influenza A H1N1, Influenza A H5N1, Influenza A H3N2, Avian Influenza A Virus, *Trichophyton mentagrophytes*, *Candida albicans*, and meets the OSHA Bloodborne Pathogen Standard for HIV, HBV, and HCV*.

*when used as directed.

FIRST AID

In case of emergency, call a poison control center or doctor for treatment advice. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.

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.
IF ON SKIN: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes.
IF SWALLOWED: 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. Call a poison control center or doctor immediately for treatment advice.
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.
NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

For Spill/Exposure Emergency Response Service from the USA and Canada in English, Spanish, Portuguese, French, and Dutch call CARCHEM 24 at 866-928-0789. For Arabic call 011-44-1235-239-671, Chinese call 011-86-10-5100-3039.

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER. Corrosive. Causes irreversible eye damage and skin burns. Harmful if swallowed or absorbed through the skin. Do not get in 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, chewing gum, using tobacco or using the toilet. Remove contaminated clothing and wash clothing before reuse.

ENVIRONMENTAL HAZARDS

Containers greater than 18.9 Liters: This product is toxic to fish, aquatic invertebrates, oysters and shrimp. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product into sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

Containers less than 18.9 Liters: This product is toxic to fish, aquatic invertebrates, oysters and shrimp.

SPANISH ADVISORY STATEMENTS

SI USTED NO ENTIENDE LA ETIQUETA, BUSQUE A ALGUIEN PARA QUE SE LA EXLIQUE A USTED EN DETALLE.

IF YOU DO NOT UNDERSTAND THE LABLE, FIND SOMEONE TO EXPLAIN IT TO YOU IN DETAIL.

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store only in original container. Keep the product under locked storage sufficient to make it inaccessible to children or persons unfamiliar with its proper use.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance.

CONTAINER HANDLING:

For non-refillable containers equal to or less than 18.9 Liters: Non-Refillable Container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Fill the container ¼ full with water and recap. Shake for 10 seconds. Drain for 10 seconds after the flow begins to drip. Follow Pesticide Disposal instructions for rinsate disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

For non-refillable containers greater than 18.9 Liters: Non-Refillable Container. Do not reuse or refill this container. Triple rinse container or equivalent promptly after emptying. Triple rinse as follows: Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at lead one complete revolution, for 30 seconds. Stand the container on its end and tip back and forth several times. Turn the container over onto its other end and tip back and forth several times. Follow Pesticide Disposal instructions for rinsate disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration.

For sealed containers: Non-Refillable Container. Do not reuse or refill this container. Wrap empty container and put in trash or offer for recycling.

DIRECTIONS FOR USE

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

DEC-QUAT 200C is not 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 can be used to pre-clean or decontaminate critical or semi-critical medical devices prior to sterilization or high-level disinfection.

DILUTION TABLE

DEC-QUAT 200C – 5th Generation Quaternary Ammonium Solution		
Use	**Dilution**	**Contact Time**
For Hospital or Medical Environment claims	14.8 mL/3.79 Liter water	10 minutes
For General or Broad Spectrum claims	14.8 mL/3.79 Liter water	10 minutes
For Public Health Virucidal* claims	14.8 mL/3.79 Liter water	10 minutes
For Animal Virucidal* claims	14.8 mL/3.79 Liter water	10 minutes
For Animal Virucidal** claims	66.5 mL/3.79 Liter water	10 minutes
For Non-Food Contact Sanitizing claims	14.8 mL/3.79 Liter water	3 minutes
For Fungicidal claims	14.8 mL/3.79 Liter water	10 minutes
For Mold and Mildew claims	14.8 mL/3.79 Liter water	Reapply every 7 days

HOSPITAL/HEALTH CARE/MEDICAL/NON-MEDICAL

FOR USE AS A ONE-STEP GENERAL, HOSPITAL, AND MEDICAL DISINFECTANT, FUNGICIDE, VIRUCIDE*, DEODORIZER AND CLEANER:

1. Pre-clean heavily soiled areas.
2. Prepare a solution according to SimpleMix® system container instructions, apply use solution of 14.8 mL of **DEC-QUAT 200C** per 3.79 Liter of water**,** or apply equivalent use dilution to disinfect hard, non-porous surfaces with a sponge, brush, cloth, mop, by immersion, trigger spray device, or mechanical spray device. For spray applications spray 15.2 – 20.3 cm from surface. Do not breathe spray.
3. Treated surfaces must remain wet for 10 minutes.
4. Wipe dry with a clean cloth or allow to air dry. Rinsing of floors is not necessary unless they are to be waxed or polished.
5. Prepare a fresh solution daily or when visibly dirty.

BLOODBORNE PATHOGEN INSTRUCTIONS:

***KILLS HIV, HBV AND HCV ON PRE-CLEANED HARD, NON-POROUS SURFACES/OBJECTS PREVIOUSLY SOILED WITH BLOOD/BODY FLUIDS** in health care settings or other settings in which there is an expected likelihood of soiling of hard, non-porous 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 Human Immunodeficiency Virus Type 1 (HIV-1), Hepatitis B Virus (HBV) and Hepatitis C Virus (HCV).

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

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

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

Disposal of Infectious Materials: Blood and other 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: Allow hard, non-porous surfaces to remain wet for 10 minutes for all organisms.

SURGICAL INSTRUMENT PRESOAK: Prepare a solution according to SimpleMix System Container instructions, add (mix) 14.8 mL of this product per 3.79 Liter of water, or mix equivalent use dilution at 660 ppm active. Place pre-cleaned instruments in solution to presoak surgical instruments for a minimum of 10 minutes, then proceed with normal sterilization procedure.

Note: Plastic instruments can remain immersed until sterilization procedure. Metal instruments must be removed after 10 minutes, rinsed, dried, and kept in a clean non-contaminated receptacle until sterilization procedure. Prolonged soaking will cause damage to metal instruments. Surgical instruments must be sterilized before use. Prepare a fresh solution daily or when visibly dirty.

ULTRASONIC BATH DISINFECTANT DIRECTIONS: Pre-clean heavily soiled areas. Use this product to disinfect hard, non-porous noncritical objects compatible with Ultrasonic cleaning units. Prepare a solution according to SimpleMix System Container instructions, pour 14.8 mL of this product per 3.79 Liter of water, or pour equivalent use dilution at 660 ppm active directly into bath chamber. Place objects into unit and operate according to manufacturers' use directions for a minimum of 10 minutes. Remove objects and rinse with sterile water. Allow to air dry. Prepare a fresh solution daily or when visibly dirty.

FOR DISINFECTING USE ON HARD, NON-POROUS BATH AND THERAPY EQUIPMENT: Drain the water from the unit. Pre-clean heavily soiled surfaces to remove body oils, dead tissue, soil and all other buildups. Prepare a solution according to SimpleMix System Container instructions, prepare a use solution by adding 14.8 mL of this product per 3.79 Liter of water, or prepare equivalent use dilution at 660 ppm active. Refill the unit with the use solution to just cover the intake valve. Briefly start the pump to circulate the solution. Turn off pump. Wash down the unit sides, seat of the chair lift, and all related equipment with a clean swab, brush or sponge. Treated surfaces must remain wet for 10 minutes for proper disinfection. After the unit has been thoroughly disinfected, drain solution from the unit and rinse surfaces with fresh water. The unit is ready for reuse.

CLEANING AND DISINFECTING HARD, NON-POROUS SURFACES ON PERSONAL PROTECTIVE EQUIPMENT (RESPIRATORS): Pre-clean equipment, if heavily soiled to ensure proper surface contact. Prepare a solution according to SimpleMix System Container instructions, prepare a use solution by adding 14.8 mL of this product per 3.79 Liter of water, or prepare equivalent use dilution at 660 ppm active. Gently mix for uniform use solution. Apply use solution to surfaces of the respirator with a sponge, brush, cloth, mop, by immersion, mechanical spray device, or trigger spray device. For spray applications, spray 15.2 – 20.3 cm from surface. Do not breathe spray. Rub with brush, cloth, or sponge. Treated surfaces must 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). Prepare a fresh solution daily or when visibly dirty.

SANITIZING

NON-FOOD CONTACT SURFACE SANITIZING: Pre-clean heavily soiled areas. Prepare a solution according to SimpleMix System Container, add 14.8 mL of this product per 3.79 Liter of water, or mix equivalent use dilution at 660 ppm active. Apply solution to hard, non-porous surfaces with a sponge, brush, cloth, mop, by immersion, mechanical spray device, or trigger spray device. For spray applications, spray 15.2 – 20.3 cm from surface. Do not breathe spray. Treated surfaces must remain wet for 3 minutes. Prepare a fresh solution daily or when visibly dirty.

ULTRASONIC BATH SANITIZER DIRECTIONS: Pre-clean heavily soiled areas. To use this product to sanitizer hard, non-porous, non-critical objects compatible with cleaning units. Prepare a use solution of 14.8 mL of this product per 3.79 Liter of water or prepare equivalent use dilution at 600 ppm active and pour directly into bath chamber. Place objects into unit and operate for a minimum of 3 minutes, according to manufacturers' use directions. Remove objects and rinse with sterile water. Allow to air dry. Prepare a fresh solution daily or when visibly dirty.

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

SANITIATION OF HARD, NON-POROUS SURFACES ON PERSONAL PROTECTIVE EQUIPMENT (RESPIRATORS): Add 14.8 mL of this product per 3.79 Liter of water or equivalent use dilution at 660 ppm active. Gently mix for uniform solution. Apply solution to surfaces of the respirator with a sponge, brush, cloth, by immersion, mechanical spray device, or trigger spray device. For spray applications, spray 15.2 – 20.3 cm from surface. Do not breath spray. Thoroughly wet surfaces to be sanitized. Treated surfaces must remain wet for 3 minutes. Remove excess solution from equipment prior to storage. Prepare a fresh solution daily or when visibly dirty.

FUNGICIDAL/MOLD/MILDEW

TO KILL FUNGI: Pre-clean heavily soiled areas. Prepare a solution according to SimpleMix System Container instructions, prepare use solution by adding 14.8 mL of this product per 3.79 Liter of water, or prepare equivalent use dilution. Apply use solution to hard, non-porous surfaces. Allow surface to remain wet for 10 minutes. Wipe surfaces and let air dry.

TO CONTROL MOLD/MILDEW: Pre-clean heavily soiled areas. Prepare a solution according to SimpleMix System Container instructions, prepare a use solution by adding 14.8 mL of this product per 3.79 Liter of water, or prepare equivalent use dilution. Apply use solution to hard, non-porous surfaces which will effectively inhibit the growth of mold and mildew and their odors. Repeat treatment every seven days, or more often if new growth appears.

DEODORIZATION/CLEANING

FOR USE AS A GENERAL CLEANER AND/OR DEODORIZER: Prepare a solution according to SimpleMix System Container Instructions, add 14.8 mL – 30 mL of this product per 3.79 Liter of water, or prepare equivalent use dilution and apply to hard, non-porous surfaces. Rinse, wipe up excess liquid, and/or allow to air dry. For heavy-duty use, mix 59 mL of this product per 3.79 Liter of water to clean hard, non-porous surfaces.

GENERAL DEODORIZATION: To deodorize, apply 14.8 mL – 30 mL of this product per 3.79 Liter of water or equivalent use dilution to hard, non-porous surfaces. Rinse, wipe up excess liquid, and/or allow to air dry.

ALTERNATE CONTAINER/DELIVERY SYSTEMS

SIMPLEMIX® SYSTEM CONTAINER:



473 mL 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 14 for pictorial directions.

3.79 Liter 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 15 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 16 for pictorial directions.

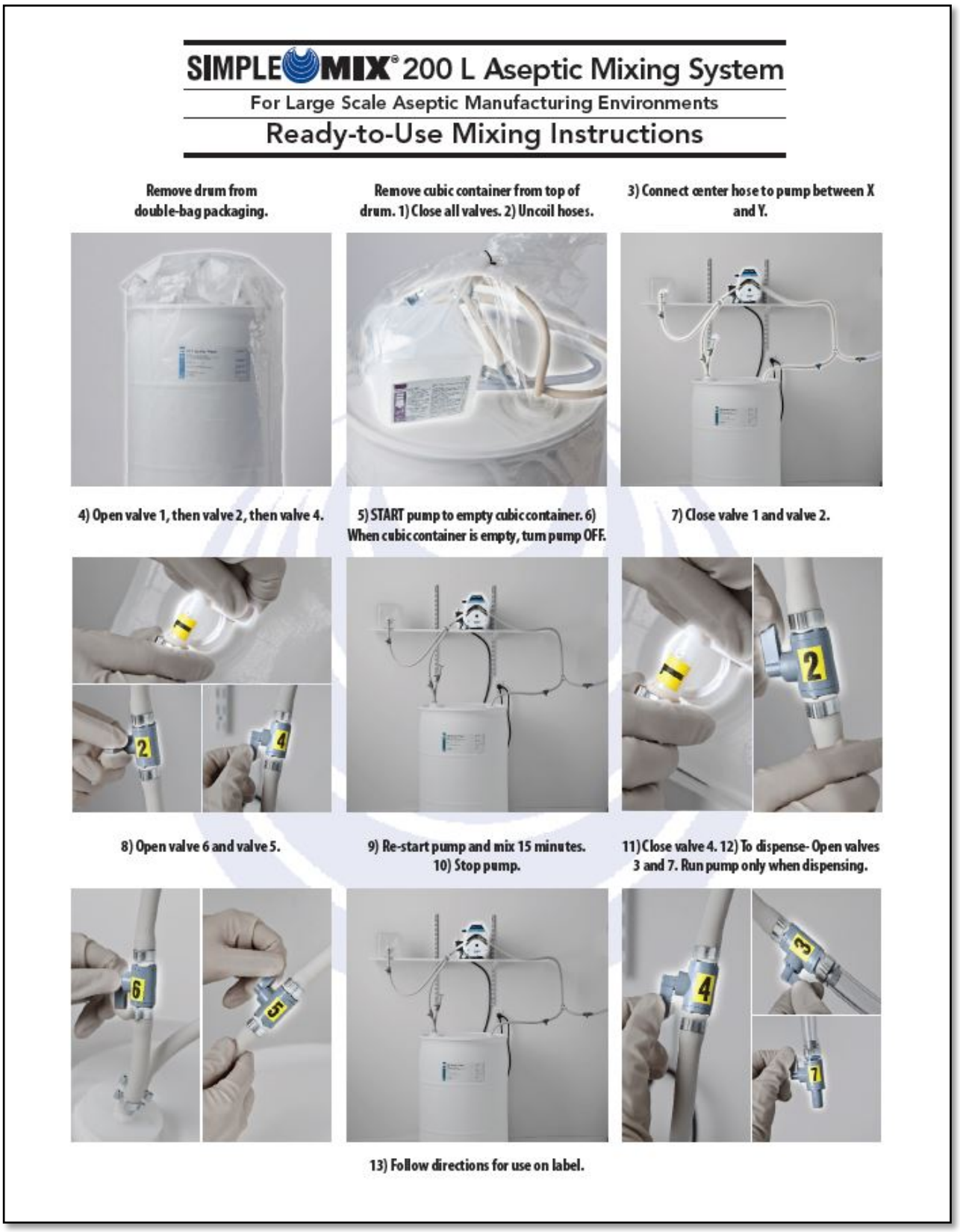
473 mL SimpleMix System Directions



3.79 Liter SimpleMix System Directions



200L SimpleMix System Directions



EN TESTING RESULTS SUMMARY

DEC-QUAT® 200C

5th Generation Quaternary Ammonium Solution

Bactericidal Efficacy

Surface Bactericidal Effectiveness Test

Efficacy of DEC-QUAT 200C in the Surface Bactericidal Effectiveness Test – EVALUATION OF BACTERICIDAL ACTIVITY: CARRIER TEST (EN13697:2001).

On the basis of the results obtained, in compliance with the assay validity criteria, the test item DEC-QUAT 200C gives the following:

- **BACTERICIDAL** with the test concentration of 1:128 after 10 minutes of contact, using a 0.03% final concentrate of bovine albumin, in compliance with EN 13697:2001.
- **Causes a reduction >4Log** against *Staphylococcus aureus* ATCC 6538 and *Enterococcus hirae* ATCC 10541 with the concentration of 1:256 after 5 minutes of contact, using a 0.03% final concentration of bovine albumin, in compliance with EN13697:2001.
- **Causes a reduction >4Log** against *Escherichia coli* ATCC 10536 with the concentration of 1:128 after 5 minutes of contact, and against *Pseudomonas aeruginosa* ATCC 15442 with the concentration of 1:256 after 10 minutes contact, using a 0.03% final concentration of bovine albumin, in compliance with EN 13697:2001.

The study was conducted in order to assess the efficacy of the test item, in conformity to EU regulatory requirements.

The study was performed **in Compliance with Good Laboratory Practice.**

The bactericidal effectiveness was verified through the following test:

- **Phase 2/step 2 bactericidal activity. Carrier test** in which four bacterial strains, *Staphylococcus aureus* ATCC 6538, *Enterococcus hirae* ATCC 10541, *Escherichia coli* ATCC 10536, and *Pseudomonas aeruginosa* ATCC 15442, were exposed to the test item in the following conditions:
  - Final concentrations: 1:128 – 1:256 – 1:512
  - Contact times: 5 – 10 minutes
  - Temperature test: 20°C±1°C
  - Interfering substance: bovine albumin solution with a 0.03% final concentration (simulating clean conditions)

The test was performed on steel carriers.

DEC-QUAT 200C*			
MICROORGANISM TEST	**CONTACT TIMES AND CONCENTRATIONS TESTED**		
	1:128	**1:256**	**1:512**
	5 minutes		
***Staphylococcus aureus* ATCC 6538**	>6.44	>6.44	2.85
***Pseudomonas aeruginosa* ATCC 15442**	3.79	2.69	2.63

***Escherichia coli* ATCC 10536**	4.18	3.23	2.90
***Enterococcus hirae* ATCC 10541**	>6.93	>6.93	3.53
MICROORGANISM TEST	**CONTACT TIMES AND CONCENTRATIONS TESTED**		
	1:128	**1:256**	**1:512**
	10 minutes		
***Staphylococcus aureus* ATCC 6538**	>6.44	>6.44	>4.36
***Pseudomonas aeruginosa* ATCC 15442**	4.04	3.67	3.07
***Escherichia coli* ATCC 10536**	>4.72	4.29	3.98
***Enterococcus hirae* ATCC 10541**	>6.93	>6.93	>4.85

*The test item is considered bactericidal when ME≥4 Log at least following 5 minutes of contact.

Bactericidal Efficacy

Suspension Bactericidal Effectiveness Test

Efficacy of DEC-QUAT 200C in the Suspension Bactericidal Effectiveness Test – EVALUATION OF BACTERICIDAL ACTIVITY IN SUSPENSION – DILULTION – NEUTRALIZATION METHOD (EN 1276:2009).

On the basis of the results obtained, in compliance with the assay validity criteria, the test item DEC-QUAT 200C causes a reduction >5Log with the test concentration of 1:256 (equivalent to 0.39% and to 0.08% of active ingredient concentration) after 10 minutes of contact time, using a 0.03% final concentration of bovine albumin, in compliance with EN 1276:2009.

The study was conducted in order to assess the efficacy of the test item, in conformity to EU regulatory requirements.

The study was performed **in Compliance with Good Laboratory Practice.**

The bactericidal effectiveness was verified through the following test:

- **Phase 2/step 1 bactericidal activity in suspension. Dilution – neutralization method** in which 4 different bacterial strains, *Staphylococcus aureus* ATCC 6538, *Enterococcus hirae* ATCC 10541, *Escherichia coli* ATCC 10536, and *Pseudomonas aeruginosa* ATCC 15442, were exposed to the test item in the following conditions:
    - In test concentrations: 1:128 – 1:256 – 1:512 (equivalent to 0.78% - 0.39% - 0.20% and to 0.156% - 0.08% - 0.04% of active ingredient concentration)
    - Contact times: 10 minutes
    - Temperature test: 20°C±1°C
    - Interfering substance: bovine albumin solution with a 0.03% in test concentration (simulating clean conditions)

The test was performed on steel carriers.

DEC-QUAT 200C*	
TEST MICROORGANISMS	**CONTACT TIMES AND CONCENTRATIONS TESTED**

	1:128 (0.78%)	1:256 (0.39%)	1:512 (0.20%)
	10 minutes		
***Staphylococcus aureus* ATCC 6538**	>5.52	5.45	4.84
***Pseudomonas aeruginosa* ATCC 15442**	>5.35	>5.27	4.78
***Escherichia coli* ATCC 10536**	>5.55	>5.55	4.88
***Enterococcus hirae* ATCC 10541**	>5.54	5.28	4.77

*The test item is considered bactericidal when the bacterial count for each bacterial strain is reduced by at least 5 Log following 5 minutes of contact at 20°C.

Fungicidal Efficacy

Surface Fungicidal Effectiveness Test

Efficacy of DEC-QUAT 200C in the Surface Fungicidal Effectiveness Test – EVALUATION OF FUNGICIDAL ACTIVITY: CARRIER TEST (EN13697:2001).

On the basis of the results obtained, in compliance with the assay validity criteria, the test item DEC-QUAT 200C gives the following:

- **Cause a reduction >3Log** against *Candida albicans* ATCC 10231 with the test concentration of 1:256 after 15 minutes of contact, using a 0.03% final concentration of 1:256 after 15 minutes of contact, using a 0.03% final concentration of bovine albumin, in compliance with EN 13697:2001.
- **Does not cause a reduction ≥3Log** against *Aspergillus niger* ATCC 16404 with the test conditions after 15 minutes of contact, using a 0.03% final concentration of bovine albumin, in compliance with EN 13697:2001.

The study was conducted in order to assess the efficacy of the test item, in conformity to EU regulatory requirements.

The study was performed **in Compliance with Good Laboratory Practice.**

The fungicidal effectiveness was verified by performing the following test:

- **Phase 2/step 2 fungicidal activity. Carrier test** in which two fungi strains, *Candida albicans* ATCC 10231 and *Aspergillus niger* ATCC 16404 were exposed to the test item in the following conditions:
  - Final concentrations: 1:128 – 1:256 – 1:512
  - Contact time: 15 minutes
  - Temperature test: 20°C±1°C
  - Interfering substance: bovine albumin solutions with a 0.03% final concentration (simulating clean conditions)

The test was performed on stainless steel carriers.

DEC-QUAT 200C*			
MICROORGANISM TEST	**CONTACT TIMES AND CONCENTRATIONS TESTED**		
	1:128	**1:256**	**1:512**
	15 minutes		
***Candida albicans* ATCC 10231**	>6.38	>6.38	2.86

***Aspergillus niger* ATCC 16404**	2.17	1.26	1.02

*The test item is considered fungicidal when ME≥3 Log at least following 15 minutes of contact.

Fungicidal Efficacy

Suspension Fungicidal Effectiveness Test

Efficacy of DEC-QUAT 200C in the Suspension Fungicidal Effectiveness Test – EVALUATION OF FUNGICIDAL ACTIVITY IN SUSPENSION: DILUTION NEUTRALIZATION METHOD (EN 1650:2008).

On the basis of the results obtained, in compliance with the assay validity criteria, the test item DEC-QUAT 200C gives the following:

- **YEASTICIDAL** with the test concentration of 1:256 after 15 minutes of contact, using a 0.03% final concentration of bovine albumin, in compliance with EN 1650:2008.
- **Does not cause a reduction ≥4Log** against *Aspergillus niger* ATCC 16404 with the test conditions after 15 minutes of contact, using a 0.03% final concentration of bovine albumin, in compliance with EN 13697:2001.

The study was conducted in order to assess the efficacy of the test item, in conformity to EU regulatory requirements.

The study was performed **in Compliance with Good Laboratory Practice.**

The fungicidal effectiveness was verified by performing the following test:

- **Phase 2/step 1 fungicidal activity in suspension. Dilution – neutralization method** in which 2 different mycetes, *Candida albicans* ATCC 10231 and *Aspergillus niger* ATCC 16404 were exposed to the test item in the following conditions:
  - Final concentrations: 1:128 – 1:256 – 1:512
  - Contact time: 15 minutes
  - Temperature test: 20°C±1°C
  - Interfering substance: bovine albumin solutions with a 0.03% final concentration (simulating clean conditions)

The test was performed on stainless steel carriers.

DEC-QUAT 200C*			
MICROORGANISM TEST	**CONTACT TIMES AND CONCENTRATIONS TESTED**		
	1:128	**1:256**	**1:512**
	15 minutes		
***Candida albicans* ATCC 10231**	>6.38	>6.38	2.86
***Aspergillus niger* ATCC 16404**	2.17	1.26	1.02

*The test item is considered fungicidal when ME≥3 Log at least following 15 minutes of contact.

*The test item is considered yeasticidal when it causes for *Candida albicans* a reduction of vitality of at least 4 Log at 20°C after 15 minutes of contact.

OTHER EFFICACY TESTS

DEC-QUAT® 200C

5th Generation Quaternary Ammonium Solution

DEC-QUAT 200C kills the following *bacteria* in 10 minutes at 14.8 mL per 3.79 Liter of water at 660 ppm active and 5% soil on hard, non-porous surfaces:	
Acinetobacter baumannii (ATCC 19003)	*Pseudomonas cepacia* (ATCC 25416)
Acinetobacter lwoffi (ATCC 9957)	*Salmonella enterica* (ATCC 23564)
Acinetobacter lwoffi (ATCC 15309)	*Salmonella enterica* (ATCC 10708)
Bordetella bronchiseptica (ATCC 10580)	*Salmonella enteritidis* (ATCC 4931)
Chlamydia psittaci (VR-125)	*Salmonella enterica serotype pullorum* (ATCC 19945)
Citrobacter freundii (ATCC 8090)	*Salmonella typhi* (ATCC 6539)
Emterobacter agglomerans (ATCC 27155)	*Salmonella typhimurium* (ATCC 23564)
Emterobacter aerogenes (ATCC 13048)	*Serratia marcescens* (ATCC 9103)
Enterobacter cloacae (ATCC 13047)	*Serratia marcescens* (ATCC 14756)
Escherichia coli (ATCC 11229)	*Shigella flexneri* (ATCC 9380)
Escherichia coli O157:H7 (ATCC 35150)	*Shigella flexneri* (ATCC 12022)
Escherichia coli (Carpapenem Resistant) (CDC 81371)	*Shigella sonnei* (ATCC 25931)
Escherichia coli (Extended Spectrum B-Lactamase) (ESBL) (ATCC BAA-196)	*Staphylococcus aureus* (ATCC 6538)
Escherichia coli (Tetracycline Resistant) (ATCC 47041)	*Staphylococcus aureus* (ATCC 25923)
Enterococcus faecalis (ATCC 19433)	*Staphylococcus aureus* (ATCC 33586)
Enterococcus faecalis (Vancomycin Resistant) (VRE) (ATCC 51299)	*Staphylococcus aureus* (ATCC 14154)
Enterococcus hirae (ATCC 10541)	*Staphylococcus aureus* (Community Associated Methicillin Resistant) (CA-MRSA) (Genotype USA 300)
Fusobacterium necrophorum (ATCC 27852)	*Staphylococcus aureus* (Community Associated Methicillin Resistant) (CA-MRSA) (Genotype USA 400)
Klebsiella oxytoca (ATCC 13182)	*Staphylococcus aureus* (Methicillin Resistant) (MRSA) (ATCC 33592)
Klebsiella pneumonia (ATCC 13883)	*Staphylococcus epidermidis* (ATCC 14990)
Klebsiella pneumonia (Carbapenem-Resistant) (NDM-1) (ATCC BAA-2146)	*Staphylococcus epidermidis* (Ampicillin, Cefazolin, Oxacillin, Penicillin Resistant) (ATCC 51625)
Listeria monocytogenes (ATCC 19117)	*Streptococcus agalactiae* (ATCC 13813)
Micrococcus luteus (ATCC 14452)	*Staphylococcus haemolyticus* (ATCC 29970)
Micrococcus luteus (ATCC 4698)	*Streptococcus pneumoniae* (Penicillin Resistant) (ATCC 51915)
Pasturella multocida (ATCC 12947)	*Streptococcus pyogenes* (ATCC 19615)
Proteus vulgaris (ATCC 9920)	*Streptococcus mutans* (ATCC 25175)

Proteus vulgaris (ATCC 13315)	*Staphylococcus aureus (*Vancomycin Intermediate Resistant) (VISA) (HIP 5836)
Pseudomonas aeruginosa (ATCC 15442)	*Vibrio cholera* (ATCC 11623)
Pseudomonas aeruginosa (Tetracycline Resistant) (ATCC 27853)	*Yersinia enterocolitica* (ATCC 23715)

DEC-QUAT 200C kills the following *viruses* in 10 minutes at 14.8 mL per 3.79 Liter of water at 660 ppm active and 5% soil on hard, non-porous surfaces:	
Avian Influenza A (H3N2) Virus (Avian Reassortant) (VR-2072)	Herpes Simplex Virus Type 2 (VR-734)
Avian Influenza A (H5N1) Virus (Reassortant Strain) (CDC 2006719965)	Human Coronavirus (VR-740)
Avian Infectious Bronchitis Virus (Strain Beaudette IB42)	Human Immunodeficiency Virus Type 1 (HIV 1) (AIDS Virus)
Canine Coronavirus (VR-809)	Infectious Bovine Rhinotracheitis Virus (VR-188)
Canine Distemper Virus (VR-128)	Influenza A (H1N1) Virus (Strain A/PR/8/34)
Coronavirus (SARS-associated) (CDC 200300592)	Influenza A Virus (H3N2) (Hong Kong Strain) (VR-544)
Cytomegalovirus (AD-169)	Pseudorabies Virus (VR-135)
Feline Picornavirus (VR-649)	Respiratory Syncytial Virus (VR-26)
Hantavirus (PHV)	Swine Influenza A Virus (H1N1) (Strain A/Swine/1976/31)
Hepatitis B Virus (HBV) (Duck Hepatitis B Virus)	Transmissible Gastroenteritis Virus (TGE) (Clinical Isolate)
Hepatitis C Virus (HCV) (Bovine Viral Diarrhea Virus)	Vaccinia Virus (VR-119)
Herpes Simplex Virus Type 1 (VR-733)	

DEC-QUAT 200C kills the following *viruses* in 10 minutes at 66.5 mL per 3.79 Liter of water and 5% soil on hard, non-porous surfaces:	
Canine Parvovirus** (CPV) (Type 2b)	Rabies**

******** *Indicates that a dilution of 66.5 mL per 3.79 Liter of water is required for this claim.*

DEC-QUAT 200C is an effective one-step *sanitizer* in 3 minutes at 14.8 mL per 3.79 Liter of water at 660 ppm active and 5% soil on hard, non-porous surfaces:	
Klebsiella pneumonia (ATCC 4352)	*Staphylococcus aureus* (ATCC 6538)

DEC-QUAT 200C kills the following *fungi* in 10 minutes at 14.8 mL per 3.79 Liter of water at 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)

DEC-QUAT 200C controls the following *mold* in 10 minutes at 14.8 mL per 3.79 Liter of water at 660 ppm active on hard, non-porous surfaces:
Aspergillus niger (ATCC 16404)

Summary of Antimicrobial Test Results

Hospital Disinfection (at 14.8 mL per 3.79 Liters)

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 14.8 mL of this product per 3.79 Liters 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*
Pseudomonas aeruginosa ATCC 15442	3.9 X 10^4 CFU/Carrier	A (60 Days Old)	60	0/60
		B	60	0/60
		C	60	1/60
Salmonella enterica ATCC 10708	1.03 X 10^6 CFU/Carrier	A (60 Days Old)	60	1/60
		B	60	1/60
		C	60	0/60
Staphylococcus aureus ATCC 6538	7.0 X 10^4 CFU/Carrier	A (60 Days Old)	60	0/60
		B	60	0/60
		C	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*
Acinetobacter baumannii ATCC 19003	5.1 x 10^6 CFU/Carrier	A	10	0/10
		B	10	0/10
Acinetobacter lwoffi ATCC 15309	5.7 x 10^5 CFU/Carrier	A	10	0/10
		B	10	0/10
Acinetobacter lwoffi ATCC 9957	4.0 x 10^5 CFU/Carrier	A	10	0/10
		B	10	0/10
Bordetella bronciseptica ATCC 10580	9.4 x 10^6 CFU/Carrier	A	10	0/10
		B	10	0/10
Citrobacter freundii ATCC 8090	3.9 x 10^5 CFU/Carrier	A	10	0/10
		B	10	0/10
Enterobacter aerogenes ATCC 13048	2.35 x 10^7 CFU/Carrier	A	10	0/10
		B	10	0/10
Enterobacter agglomerans ATCC 27155	3.9 x 10^5 CFU/Carrier	A	10	0/10
		B	10	0/10
Enterobacter cloacae ATCC 13047	3.3 x 10^7 CFU/Carrier	A	10	0/10
		B	10	0/10
Enterococcus faecalis ATCC 19433	6.2 x 10^5 CFU/Carrier	A	10	0/10
		B	10	0/10

Enterococcus faecalis Vancomycin Resistant (VRE) ATCC 51299	1.3 x 10^7 CFU/Carrier	A	10	0/10
		B	10	0/10
Enterococcus hirae ATCC 10541	1.19 x 10^5 CFU/Carrier	A	10	0/10
		B	10	0/10
Escherichia coli ATCC 11229	1.3 x 10^7 CFU/Carrier	A	10	0/10
		B	10	0/10
Escherichia coli Spectrum B-Lactamase (ESBL) ATCC BAA-196	4.6 x 10^6 CFU/Carrier	A	10	0/10
		B	10	0/10
Escherichia coli O157:H7 ATCC 35150	Specific testing data and lot number not available			
Escherichia coli (Carbapenem Resistant) (CDC 81371)	Specific testing data and lot number not available			
Escherichia coli Tetracycline Resistant ATCC 47041	3.1 x 10^5 CFU/Carrier	A	10	0/10
		B	10	0/10
Fusobacterium necrophorum ATCC 27852	5.8 x 10^5 CFU/Carrier	A	10	0/10
		B	10	0/10
Klebsiella oxytoca ATCC 13182	1.07 x 10^6 CFU/Carrier	A	10	0/10
		B	10	0/10
Klebsiella pneumonia ATCC 13883	1.2 x 10^6 CFU/Carrier	A	10	0/10
		B	10	0/10
Klebsiella pnemoniae (Carbapenem-Resistant) (NDM-1) (ATCC BAA-2146)	Specific testing data and lot number not available			
Listeria moncytogenes ATCC 19117	7.7 x 10^6 CFU/Carrier	A	10	0/10
		B	10	0/10
Micrococcus luteus ATCC 14452	1.1 x 10^5 CFU/Carrier	A	10	0/10
		B	10	0/10
Micrococcus luteus ATCC 4698	4.8 x 10^5 CFU/Carrier	A	10	0/10
		B	10	0/10
Pasturella multocida ATCC 12947	1.32 x 10^7 CFU/Carrier	A	10	0/10
		B	10	0/10
Proteus vulgaris ATCC 13315	1.9 x 10^4 CFU/Carrier	A	10	0/10
		B	10	0/10
Proteus vulgaris ATCC 9920	1.24 x 10^5 CFU/Carrier	A	10	0/10
		B	10	0/10
Pseudomonas aeruginosa Tetracycline Resistant ATCC 27853	3.5 x 10^6 CFU/Carrier	A	10	0/10
		B	10	0/10
Pseudomonas cepacia ATCC 25416	1.63 x 10^6 CFU/Carrier	A	10	0/10
		B	10	0/10
Salmonella enterica ATCC 23564	9.2 x 10^4 CFU/Carrier	A	10	0/10
		B	10	0/10
Salmonella enteritidis ATCC 4931	1.3 x 10^6 CFU/Carrier	A	10	0/10
		B	10	0/10
Salmonella enterica serotype pullorum ATCC 19945	7.1 x 10^5 CFU/Carrier	A	10	0/10
		B	10	0/10
Salmonella typhi ATCC 6539	8.3 x 10^6 CFU/Carrier	A	10	0/10
		B	10	0/10
Salmonella typhimurium ATCC 23564	1.5 x 10^5 CFU/Carrier	A	10	0/10
	5.6 x 10^5 CFU/Carrier	B	10	0/10
Serratia marcescens ATCC 14756	6.2 x 10^6 CFU/Carrier	A	10	0/10
		B	10	0/10
Serratia marcescens ATCC 9103	6.0 x 10^6 CFU/Carrier	A	10	0/10
		B	10	0/10

Shigella flexneri ATCC 12022	2.6 x 10^4 CFU/Carrier	A	10	0/10
		B	10	0/10
Shigella flexneri ATCC 9380	1.99 x 10^6 CFU/Carrier	A	10	0/10
		B	10	0/10
Shigella sonnei ATCC 25931	1.04 x 10^6 CFU/Carrier	A	10	0/10
		B	10	0/10
Staphylococcus aureus ATCC 14154	9.2 x 10^5 CFU/Carrier	A	10	0/10
		B	10	0/10
Staphylococcus aureus ATCC 25923	6.6 x 10^6 CFU/Carrier	A	10	0/10
		B	10	0/10
Staphylococcus aureus ATCC 33586	7.2 x 10^4 CFU/Carrier	A	10	0/10
		B	10	0/10
Staphylococcus aureus Methicillin Resistant (MRSA) ATCC 33592	5.4 x 10^6 CFU/Carrier	A	10	0/10
		B	10	0/10
Staphylococcus aureus Community Associated Methicillin Resistant (CA-MRSA) (Genotype USA 400)	Specific testing data and lot number not available			
Staphylococcus aureus Community Associated Methicillin Resistant (CA-MRSA**)** (Genotype USA 300)	1.60 x 10^6 CFU/Carrier	A	10	0/10
		B	10	0/10
Staphylococcus aureus Vancomycin Intermediate Resistant (VISA) (HIP 5836)	Specific testing data and lot number not available			
Staphylococcus epidermidis ATCC 14990	1.56 x 10^6 CFU/Carrier	A	10	0/10
		B	10	0/10
Staphylococcus epidermidis (Ampicillin, Cefazolin, Oxacillin, Penicillin Resistant) ATCC 51625	8.6 x 10^5 CFU/Carrier	A	10	0/10
		B	10	0/10
Staphylococcus haemolyticus ATCC 29970	9.5 x 10^5 CFU/Carrier	A	10	0/10
		B	10	0/10
Streptococcus agalactiae ATCC 13813	5.6 x 10^6 CFU/Carrier	A	10	0/10
		B	10	0/10
Streptococcus mutans ATCC 25175	1.02 x 10^6 CFU/Carrier	A	10	0/10
	1.3 x 10^4 CFU/Carrier	B	10	0/10
Streptococcus pneumonia Penicillin Resistant ATCC 51915	9.6 x 10^4 CFU/Carrier	A	10	0/10
		B	10	0/10
Streptococcus pyogenes ATCC 19615	4.7 x 10^4 CFU/Carrier	A	10	0/10
		B	10	0/10
Vibrio cholera ATCC 11623	1.0 x 10^6 CFU/Carrier	A	10	0/10
		B	10	0/10
Yersinia enterocolitica ATCC 23715	1.2 x 10^7 CFU/Carrier	A	10	0/10
		B	10	0/10

Virucidal against (at 14.8 mL per 3.79 Liters)

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*
Avian Infectious Bronchitis virus Beaudette IB42	6.42 Log_{10}	A	≤0.5 Log_{10}	≥5.92 Log_{10}
		B	≤0.5 Log_{10}	≥5.92 Log_{10}
	6.5 Log_{10}	C	≤0.5 Log_{10}	≥6.0 Log_{10}
Avian Influenza A (H3N2) virus (Avian Reassortant) (ATCC VR-2072)	4.75 Log_{10}	A	≤0.5 Log_{10}	≥4.25 Log_{10}
		B	≤0.5 Log_{10}	≥4.25 Log_{10}
		C	≤0.5 Log_{10}	≥4.25 Log_{10}
Avian Influenza A (H5N1) Virus (Reassortant Strain) (CDC 2006719965)	Specific testing data and lot number not available			
Canine Coronavirus ATCC VR-809	4.5 Log_{10}	A	≤0.5 Log_{10}	≥4.0 Log_{10}
		B	≤0.5 Log_{10}	≥4.0 Log_{10}
	4.75 Log_{10}	C	≤0.5 Log_{10}	≥4.25 Log_{10}
Canine Distemper virus ATCC VR-128	6.25 Log_{10}	A	≤0.5 Log_{10}	≥5.75 Log_{10}
		B	≤0.5 Log_{10}	≥5.75 Log_{10}
	6.75 Log_{10}	C	≤0.5 Log_{10}	≥6.25 Log_{10}
Chlamydia psittaci ATCC VR-125	7.25 Log_{10}	A	≤0.5 Log_{10}	≥6.75 Log_{10}
		B	≤0.5 Log_{10}	≥6.75 Log_{10}
	4.75 Log_{10}	C	≤0.5 Log_{10}	≥4.25 Log_{10}
Cytomegalovirus AD-169	Specific testing data and lot number not available			
Feline Picornavirus VR-649	4.5 Log_{10}	A	≤0.5 Log_{10}	≥4.0 Log_{10}
		B	≤0.5 Log_{10}	≥4.0 Log_{10}
	5.75 Log_{10}	C	≤0.5 Log_{10}	≥5.25 Log_{10}
Hantavirus (PHV)	6.23 Log_{10}	A	≤1.5 Log_{10}	≥4.73 Log_{10}
		B	≤1.5 Log_{10}	≥4.73 Log_{10}
Hepatitis B Virus (HBV) (Duck Hepatitis B Virus)	5.06 Log_{10}	A	0.27 Log_{10}	4.79 Log_{10}
	5.20 Log_{10}	B	0.41 Log_{10}	4.79 Log_{10}
	5.06 Log_{10}	Confirmatory B	0.27 Log_{10}	4.79 Log_{10}
Hepatitis C Virus (HCV) (Bovine Viral Diarrhea Virus)	6.21 Log_{10}	A	0.24 Log_{10}	5.97 Log_{10}
	6.21 Log_{10}	B	0.42 Log_{10}	5.79 Log_{10}
	6.06 Log_{10}	Confirmatory B	0.13 Log_{10}	5.93 Log_{10}
Herpes Simplex Virus Type 1 ATCC VR-773	5.5 Log_{10}	A	≤0.5 Log_{10}	≥5.0 Log_{10}
		B	≤0.5 Log_{10}	≥5.0 Log_{10}
	6.0 Log_{10}	C	≤0.5 Log_{10}	≥5.5 Log_{10}
Herpes Simplex Virus Type 2 ATCC VR-734	6.0 Log_{10}	A	≤0.5 Log_{10}	≥5.5 Log_{10}
		B	≤0.5 Log_{10}	≥5.5 Log_{10}
	5.75 Log_{10}	C	≤0.5 Log_{10}	≥5.25 Log_{10}
Human Coronavirus ATCC VR-740	4.5 Log_{10}	A	≤0.5 Log_{10}	≥4.0 Log_{10}
		B	≤0.5 Log_{10}	≥4.0 Log_{10}
	4.5 Log_{10}	C	≤0.5 Log_{10}	≥4.0 Log_{10}
Human Immunodeficiency Virus type 1 (HIV 1) (AIDS Virus)	5.75 Log_{10}	A	≤1.5 Log_{10}	≥4.25 Log_{10}
		B	≤1.5 Log_{10}	≥4.25 Log_{10}
		C	≤1.5 Log_{10}	≥4.25 Log_{10}
Infectious Bovine Rhinotracheitis Virus ATCC VR-188	4.5 Log_{10}	A	≤0.5 Log_{10}	≥4.0 Log_{10}
		B	≤0.5 Log_{10}	≥4.0 Log_{10}
	4.75 Log_{10}	C	≤0.5 Log_{10}	≥4.25 Log_{10}
Influenza A Virus (H1N1) (Strain A/PR/8/34)	Specific testing data and lot number not available			
Influenza A Virus (H3N2) (Hong Kong Strain) (VR-544)	Specific testing data and lot number not available			
Pseudorabies Virus ATCC VR-135	6.25 Log_{10}	A	≤0.5 Log_{10}	≥5.75 Log_{10}
		B	≤0.5 Log_{10}	≥5.75 Log_{10}
	5.5 Log_{10}	C	≤0.5 Log_{10}	≥5.0 Log_{10}

Respiratory syncytial virus ATCC VR-26	4.5 Log_{10}	A	≤0.5 Log_{10}	≥4.0 Log_{10}
		B	≤0.5 Log_{10}	≥4.0 Log_{10}
	5.0 Log_{10}	C	≤0.5 Log_{10}	≥4.5 Log_{10}
Coronavirus (SARS-associated) (CDC 200300592)	Specific testing data and lot number not available			
Swine Influenza A Virus (H1N1) (Strain A/Swine/1976/31)	Specific testing data and lot number not available			
Transmissible Gastroenteritis Virus	4.75 Log_{10}	A	≤0.5 Log_{10}	≥4.25 Log_{10}
		B	≤0.5 Log_{10}	≥4.25 Log_{10}
	6.25 Log_{10}	C	≤0.5 Log_{10}	≥5.75 Log_{10}
Vaccinia virus VR-119	6.75 Log_{10}	A	≤0.5 Log_{10}	≥6.25 Log_{10}
		B	≤0.5 Log_{10}	≥6.25 Log_{10}
	6.5 Log_{10}	C	≤0.5 Log_{10}	≥6.0 Log_{10}

Virucidal against (at 66.5 mL per 3.79 Liters)

This product kills the following viruses in 10 minutes at 66.5 mL per 3.79 Liters of 400 ppm hard water and 5% soil on hard, non-porous surfaces.

Organism	*Dried Virus Control*	*Sample*	*Result*	*Log Reduction*
Canine Parvovirus Type 2b**	Specific testing data and lot number not available			
Rabies Virus**	Specific testing data and lot number not available			

*****Indicates that a dilution of 66.5 mL per 3.79 Liters of water is required for this claim.

Fungicidal Against (at 14.8 mL per 3.79 Liters)

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 fungi on hard nonporous environmental surfaces.

(Testing is performed per AOAC fungicidal method (DIS/TSS-6). Two separate lots are tested against Trichophyton mentagrophytes in a suspension test. Killing of all fungal spores in 10 minutes is required.

Organism	*Carrier Population*	*Sample*	*# Carriers*	*# Positive*
Candida albicans ATCC 10231	1.57 x 10^5 CFU/Carrier	A	10	0/10
		B	10	0/10
Trichophyton mentagrophytes ATCC 9533	1.10 x 10^5 CFU/Carrier	A	10	0/10
		B	10	0/10

Mold and mildew control (at 14.8 mL per 3.79 Liters)

Use this product to control the growth of mold and mildew 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*
Aspergillus niger ATCC 16404	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%
	5	Growth 80%	No Growth 0%	No Growth 0%
	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%

Non-Food Contact Surface Sanitizer

Add 14.8 mL of this product to 3.79 Liters of water to sanitize hard porous and nonporous non-food contact surfaces. Treated surfaces must remain wet for 3 minutes. Then wipe with sponge, mop or cloth or allow to air dry. At this dilution food contact surfaces must be rinsed.

(Testing is performed per EPA Guidance (DIS/TSS-10). Three lots are required, one of which must be ≥60 days old. Testing is performed against staphylococcus aureus and *Klebsiella pneumoniae* containing 5% organic load. *Enterobacter aerogenes* may be substituted for *Klebsiella pneumoniae*. The results must show a reduction of at least 99.9% (3 $\log_{10}$) in the number of each test microorganism over the parallel control count within 5 minutes.

Organism	*Carrier Population*	*Sample*	*3 Minute Kill CFU/Carrier*	*Percent Kill*
Klebsiella pneumoniae ATC 4352	6.04 $\log_{10}$	A (60 Days Old)	>3.56 $\log_{10}$	>99.9
		B	>3.56 $\log_{10}$	>99.9
		C	>3.56 $\log_{10}$	>99.9
Staphylococcus aureus ATCC 6538	6.69 $\log_{10}$	A (60 Days Old)	>5.21 $\log_{10}$	>99.9
		B	>4.82 $\log_{10}$	>99.9
		C	>5.21 $\log_{10}$	>99.9



3.79 Liter SimpleMix DQ200C-04-2Z-E

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