

**Buckeye®**

**ONE-STEP DISINFECTANT, GERMICIDAL DETERGENT AND DEODORANT**



**QUAT-256™**

**Disinfectant • Bactericidal • Virucidal\* • Fungicidal • Mildewstatic • Staphylocidal • Salmonellacidal • One-step cleaning, disinfecting and deodorizing • Effective in 400 ppm hard water in the presence of 5% organic soil load • No rinse formula • pH neutral • Safe on floor finish • E.P.A. Registered • Pleasant fragrance • Economical • For use on hard non-porous surfaces • Easy to use • Solvent free**

Effectively kills: HIV-1 (AIDS virus) • Hepatitis B (HBV) • Hepatitis C (HCV) • Herpes Simplex 1 & 2 • German Measles • Athlete's Foot • Influenza • Vaccinia • Adenovirus • Vancomycin resistant Enterococcus faecalis (VRE) • Methicillin resistant Staphylococcus aureus (MRSA) • Community Associated Methicillin- Resistant Staphylococcus aureus (CA-MRSA) Gram-negative & Gram-positive pathogens

***SANICARE QUAT-256 is a multi-purpose, germicidal detergent designed for use in hospital, health care and industrial settings at 1/2 oz. per gallon of water.***

### ***Ideal for routine germicidal cleaning and floor care maintenance***

**SANICARE QUAT-256** is a true pH neutral, germicidal cleaner. With a use-dilution pH of  $7.0 \pm 0.2$ , **SANICARE QUAT-256** will not attack floor finish.

Special detergents effectively remove dirt and soil without harming the finish. **SANICARE QUAT-256** requires no rinsing. This means more time may pass between labor intensive stripping and recoating procedures.

### ***Kills HIV-1 (AIDS Virus), Hepatitis B Virus (HBV) and Hepatitis C Virus (HCV)***

\*KILLS HIV-1 (AIDS VIRUS) AND HBV (HEPATITIS B VIRUS) AND HCV (HEPATITIS C VIRUS) ON PRE-CLEANED, ENVIRONMENTAL 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 inanimate surfaces/objects with blood/body fluids, and in which the surfaces/objects likely to be soiled with blood/body fluids can be associated with the potential for transmission of Human Immunodeficiency Virus Type 1 (HIV-1) (associated with AIDS) or Hepatitis B Virus (HBV) or Hepatitis C Virus (HCV).

### ***Special instructions for cleaning and decontamination against HIV-1 (AIDS Virus) or HBV or HCV on surfaces/objects soiled with blood/body fluids.***

**Personal Protection:** Disposable protective gloves, gowns, face masks, and eye coverings, as appropriate, must be worn during all cleaning of blood/body fluids and during decontamination procedures.

**Cleaning Procedures:** Blood/body fluids must be thoroughly cleaned from surfaces/objects before application of disinfectant.

**Contact Time:** HIV-1 (AIDS virus) is inactivated after a contact time of 4 minutes at 25° C (77°F) (room temperature). HBV and HCV are inactivated after a 10 minute contact time. Use a 10-minute contact time for other viruses, fungi, and bacteria listed.

**Disposal of Infectious Materials:** Blood/body fluids should be autoclaved and disposed of according to federal, state and local regulations for infectious waste disposal.

## Bactericidal Gram-Negative

Bactericidal against several **gram-negative pathogens**, according to the *AOAC use dilution test* (current edition), modified in the presence of 5% organic serum and 400 ppm water hardness (calculated as CaCO<sub>3</sub>). Dilution is 1:256.

Organism	Sample	# Carriers	# of Positives	Neutralization Control
Pseudomonas aeruginosa	A	60	0	+
	B	60	0	+
	C	60	0	+
Salmonella choleraesuis	A	60	0	+
	B	60	0	+
	C	60	0	+
Legionella pneumophila	A	10	0	+
	B	10	0	+
Acinetobacter calcoaceticus	A	10	0	+
	B	10	0	+
Bordetella bronchiseptica	A	10	0	+
	B	10	0	+
Chlamydia psittaci	A	10	0	+
	B	10	0	+
Enterobacter aerogenes	A	10	0	+
	B	10	0	+
Enterobacter cloacae	A	10	0	+
	B	10	0	+
Fusobacterium necrophorum	A	10	0	+
	B	10	0	+
Salmonella typhimurium	A	10	0	+
	B	10	0	+
Salmonella typhi	A	10	0	+
	B	10	0	+
Salmonella enteritidis	A	10	0	+
	B	10	0	+
Klebsiella pneumoniae	A	10	0	+
	B	10	0	+
Proteus vulgaris	A	10	0	+
	B	10	0	+
Proteus mirabilis	A	10	0	+
	B	10	0	+
Serratia marcescens	A	10	0	+
	B	10	0	+
Shigella flexneri	A	10	0	+
	B	10	0	+
Shigella sonnei	A	10	0	+
	B	10	0	+
Escherichia coli	A	10	0	+
	B	10	0	+
Listeria monocytogenes	A	10	0	+
	B	10	0	+
Pasteurella multocida	A	10	0	+
	B	10	0	+

## Bactericidal Gram-Positive

Bactericidal against several **gram-positive pathogens**, according to the *AOAC use dilution test* (current edition), modified in the presence of 5% organic serum and 400 ppm water hardness (calculated as CaCO<sub>3</sub>). Dilution is 1:256.

Organism	Sample	# Carriers	# of Positives	Neutralization Control
Staphylococcus aureus	A	60	0	+
	B	60	0	+
	C	60	0	+
Streptococcus pyogenes	A	10	0	+
	B	10	0	+
Streptococcus faecalis	A	10	0	+
	B	10	0	+

## Bactericidal Antibiotic Resistant

**SANICARE QUAT-256** is also bactericidal against the following antibiotic resistant bacteria, according to the *AOAC use dilution test*, in hard water up to 400 ppm (calculated as CaCO<sub>3</sub>) in the presence of 5% organic serum. Dilution is 1:256.

- Enterococcus faecalis (Vancomycin Resistant) (VRE)
- Escherichia coli
- Klebsiella pneumoniae
- Pseudomonas aeruginosa
- Community Associated Methicillin - Resistant Staphylococcus aureus (CA-MRSA)
- Staphylococcus aureus (Methicillin Resistant [MRSA], Vancomycin Intermediate Resistant [VISA] and other antibiotic resistant strains)
- Staphylococcus epidermidis

## Virucidal\*

**SANICARE QUAT-256** acts as a virucidal against:

- Adenovirus Type 4
- Adenovirus Type 7 at 2 oz per gallon
- Hepatitis B Virus (HBV)
- Hepatitis C Virus (HCV)
- Herpes Simplex Type 2
- Herpes Simplex Type 1
- HIV-1 (AIDS Virus)
- Human Coronavirus
- Influenza Type A/Hong Kong
- Respiratory Syncytial Virus (RSV)
- Rotavirus
- Rubella (German Measles)
- Vaccinia

according to the *Virucidal Qualification Test*, modified in the presence of 5% organic serum and 400 ppm water hardness (calculated as CaCO<sub>3</sub>). Dilution is 1:256.

**Note:** + = Virus present; 0 = No Virus present; T = Toxic

## Herpes Simplex Type 2; MS Strain

Serial Dilutions (Test Virus in 5% V/V Organic Bio-stress Load)	Treated Diluted with 400 ppm Hard Water	Untreated Test Virus Untreated Control	Cytotoxicity Control
10 <sup>-1</sup>	T000	++++	T000
10 <sup>-2</sup>	0000	++++	0000
10 <sup>-3</sup>	0000	++++	0000
10 <sup>-4</sup>	0000	++++	0000
10 <sup>-5</sup>	0000	++++	0000
10 <sup>-6</sup>	0000	++++	0000
10 <sup>-7</sup>	0000	++++	0000
10 <sup>-8</sup>	0000	++++	0000

Conclusion: **SANICARE QUAT-256** effectively inactivated the test virus, Herpes Simplex 2.

# Virucidal\*

## Herpes Simplex Type 1; VR-733 Hominis

Serial Dilutions (Test Virus in 5% V/V Organic Bio- stress Load)	Treated Diluted with 400 ppm Hard Water	Untreated Test Virus Untreated Control	Cytotoxicity Control
10 <sup>-1</sup>	0000	++++	0000
10 <sup>-2</sup>	0000	++++	0000
10 <sup>-3</sup>	0000	++++	0000
10 <sup>-4</sup>	0000	++++	0000
10 <sup>-5</sup>	0000	++++	0000
10 <sup>-6</sup>	0000	++++	0000
10 <sup>-7</sup>	0000	++++	0000
10 <sup>-8</sup>	0000	+000	0000

Conclusion: **SANICARE QUAT-256** effectively inactivated the test virus, Herpes Simplex 1.

## Influenza Virus Type A; Hong Kong/68-H3N2

Serial Dilutions (Test Virus in 5% V/V Organic Bio- stress Load)	Treated Diluted with 400 ppm Hard Water	Untreated Test Virus Untreated Control	Cytotoxicity Control
10 <sup>-1</sup>	0000	++++	0000
10 <sup>-2</sup>	0000	++++	0000
10 <sup>-3</sup>	0000	++++	0000
10 <sup>-4</sup>	0000	++++	0000
10 <sup>-5</sup>	0000	++++	0000
10 <sup>-6</sup>	0000	++++	0000
10 <sup>-7</sup>	0000	++++	0000
10 <sup>-8</sup>	0000	++++	0000

Conclusion: **SANICARE QUAT-256** effectively inactivated the test virus, Influenza Virus, Type A.

## Adenovirus Type 4; Strain RI-67

Serial Dilutions (Test Virus in 5% V/V Organic Bio- stress Load)	Treated Diluted with 400 ppm Hard Water	Untreated Test Virus Untreated Control	Cytotoxicity Control
10 <sup>-1</sup>	T000	++++	0000
10 <sup>-2</sup>	0000	++++	0000
10 <sup>-3</sup>	0000	++++	0000
10 <sup>-4</sup>	0000	++++	0000
10 <sup>-5</sup>	0000	++++	0000
10 <sup>-6</sup>	0000	0000	0000
10 <sup>-7</sup>	0000	0000	0000
10 <sup>-8</sup>	0000	0000	0000

Conclusion: **SANICARE QUAT-256** effectively inactivated the test virus, Adenovirus, Type 4.

## Vaccinia Virus; IHD Strain

Serial Dilutions (Test Virus in 5% V/V Organic Bio- stress Load)	Treated Diluted with 400 ppm Hard Water	Untreated Test Virus Untreated Control	Cytotoxicity Control
10 <sup>-1</sup>	0000	++++	0000
10 <sup>-2</sup>	0000	++++	0000
10 <sup>-3</sup>	0000	++++	0000
10 <sup>-4</sup>	0000	++++	0000
10 <sup>-5</sup>	0000	++++	0000
10 <sup>-6</sup>	0000	++++	0000
10 <sup>-7</sup>	0000	++++	0000
10 <sup>-8</sup>	0000	0000	0000

Conclusion: **SANICARE QUAT-256** effectively inactivated the test virus, Vaccinia.

## Rubella (German Measles) Virus; Strain M-33

Serial Dilutions (Test Virus in 5% V/V Organic Bio- stress Load)	Treated Diluted with 400 ppm Hard Water	Untreated Test Virus Untreated Control	Cytotoxicity Control
10 <sup>-1</sup>	0000	++++	T000
10 <sup>-2</sup>	0000	++++	0000
10 <sup>-3</sup>	0000	++++	0000
10 <sup>-4</sup>	0000	++++	0000
10 <sup>-5</sup>	0000	++++	0000
10 <sup>-6</sup>	0000	0000	0000
10 <sup>-7</sup>	0000	0000	0000
10 <sup>-8</sup>	0000	0000	0000

Conclusion: **SANICARE QUAT-256** effectively inactivated the test virus, Rubella.

**Note:** + = Virus present; 0 = No Virus present; T = Toxic

# Fungicidal

Fungicidal against **Trichophyton mentagrophytes** (Athlete's Foot fungus), **Candida albicans** (Yeast) and **Aspergillus niger** (aspergillosis, pneumonia, skin infections, ear infections) according to the AOAC Fungicidal Test (current edition), modified in the presence of 5% organic serum and 400 ppm water hardness (calculated as CaCO<sub>3</sub>). Dilution is 1:256.

Organism	# Carriers	# of Posi- tives	Control
Trichophyton mentagrophytes	20	0	+
Candida albicans	20	0	+
Aspergillus niger	20	0	+

# ONE-STEP DISINFECTANT, GERMICIDAL DETERGENT AND DEODORANT

## Human Immunodeficiency Virus (HIV-1):

Evaluation of **SANICARE QUAT-256** for virucidal efficacy against dried virus (5% organic soil load) after a four (4) minute exposure to a 1:256 dilution in synthetic hard water (400 ppm).

### CPE Assay with MT2 Cells (Day 7)

Cytopathic-Cytotoxic Effects (No. Positive/No. Inoculated)

Dilution Inoculated	Virus Control	Sample + Virus		Non-Virucidal Level of Disinfectant		Cytotoxicity Controls	
		Lot A	Lot B	Lot A	Lot B	Lot A	Lot B
10 <sup>-1</sup>	4/4	Toxic	Toxic	Toxic	Toxic	4/4	4/4
10 <sup>-2</sup>	4/4	Toxic	Toxic	Toxic	Toxic	4/4	4/4
10 <sup>-3</sup>	4/4	0/4	0/4	4/4	4/4	0/4	0/4
10 <sup>-4</sup>	4/4	0/4	0/4	4/4	4/4	0/4	0/4
10 <sup>-5</sup>	4/4	a	a	4/4	4/4	a	a
10 <sup>-6</sup>	2/4	a	a	0/4	0/4	a	a
Virus Titer (-Log <sub>10</sub> TCID <sub>50</sub> )	6.0	≤2.5	≤2.5	5.5	5.5		
Cytotoxicity Titer (-Log <sub>10</sub> TCD <sub>50</sub> )						2.5	2.5
Reduction of Virus Titer by test sample (-Log <sub>10</sub> TCID <sub>50</sub> )		≥3.5	≥3.5				

Note: a = Virus not tested

Conclusion: **SANICARE QUAT-256** demonstrated virucidal activity against HIV-1 (AIDS virus) in the CPE assay with MT2 cells.

## E.P.A. / Health Canada

EPA REG. NO. 47371-129-559  
 EPA EST. NO. 559-MO-1  
 DIN 01962116

## Directions for Use:

**DIRECTIONS:** Remove heavy soil deposits from surface. Then thoroughly wet surface with a use-solution of 1/2 ounce of the concentrate per gallon of water or equivalent. Use 2 oz per gallon of water to kill Adenovirus Type 7. The use-solution can be applied with a cloth, mop, sponge, or coarse spray, or soaking. For sprayer applications, use a coarse spray device. Spray 6-8 inches from the surface, rub with a brush, cloth or sponge. Do not breathe spray. Let solution remain on surface for a minimum of 10 minutes. Rinse or allow to air dry. Rinsing of floors is not necessary unless they are to be waxed or polished. Food contact surfaces must be thoroughly rinsed with potable water. This product must not be used to clean the following food contact surfaces: utensils, glassware and dishes. Prepare a fresh solution daily or more often if the solution becomes visibly dirty or diluted.

### SANICARE QUAT-256 is packaged in:

- ✓ 30 & 55-Gallon Drums
- ✓ 4 x 1 Gallon Cases
- ✓ **Action Pac**® 5-Gallon Dispensing Units
- ✓ Smart Sacs™

## Technical Specifications

### SANICARE QUAT-256

pH in concentrate	7.6 ± 0.2
pH 1/2 oz./gal.	7.0 ± 0.2
Weight/gallon	8.34 lbs/gal
Specific gravity	1.00
Biodegradable	Yes
Dilution	1:256
Refractive Index at 30° C	1.3735 - 1.3740
Active Concentration	660 ppm
Active Disinfectant:	
Didecyl dimethyl ammonium chloride.....	10.14%
n-Alkyl (C <sub>14</sub> 50%, C <sub>12</sub> 40%, C <sub>16</sub> 10%)	
dimethyl benzyl ammonium chloride.....	6.76%
<b>Inert Ingredients.....</b>	<b>83.10%</b>

**SANICARE QUAT-256** is available through your local source for Buckeye products.



### Buckeye International, Inc.

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### Authorized Buckeye Distributor