Buckeye®

SANI-CARE LEMON MINT PINE QUAT™

ONE-STEP DISINFECTANT, GERMICIDAL DETERGENT AND DEODORANT

Available Packaging

*Only Buckeye Sanicare Lemon Quat is available in Smart Sacs

FEATURES

- Germicidal
- Bactericidal
- Fungicidal
- Virucidal*
- Mildewstatic
- Pseudomonacidal
- Salmonellacidal
- Staphylocidal
- Effective in hard water up to 400 ppm in the presence of 5% organic serum
- Economical
- pH neutral
- Safe on floor finish
- E.P.A. Registered
- Easy-to-use
- For use on washable, hard, nonporous surfaces
- Leaves a clean, fresh scent

The SANICARE LMP QUAT Difference

Buckeye Sanicare Lemon, Mint and Pine Quats are multi-purpose, germicidal cleaners that offer one-step cleaning, disinfecting and deodorizing for washable, hard, nonporous surfaces.

Buckeye Sanicare Lemon, Mint and Pine Quats are used at 2 oz. per gallon dilution, require no rinsing, and are pH neutral for use on floor finishes.

Effectively Kills: HIV-1 (AIDS virus) • HBV (Hepatitis B Virus) • HCV (Hepatitis C Virus) • Herpes Simplex 1 & 2 • German Measles • Athlete's Foot Fungus • Influenza • Vancomycin Resistant Enterococcus faecalis (VRE) • Methicillin Resistant Staphylococcus aureus (MRSA) • Community Associated Methicillin–Resistant Staphylococcus aureus (CA-MRSA) • Human Coronavirus • Rotavirus • Vaccinia • Adenovirus • Pandemic 2009 H1N1 Influenza A Virus (formerly called swine flu) • Gram-negative & Gram-positive pathogens

Buckeye Sanicare Lemon, Mint & Pine Quat is designed for use in:

- Hospitals
- Health Care facilities/Nursing homes
- Commercial & industrial institutions
- Medical offices
- Dental offices
- Day care centers
- Schools/Colleges/Universities
- Federally inspected meat and poultry plants (non-food contact surfaces)
- Athletic facilities
- Correctional facilities
- Kennels
- Hotels/Motels
- Office buildings
- Public restrooms
- Airports

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 $CaCO_3$). Dilution 1:64

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	+
Enterobacter aerogenes	A	10	0	+
	B	10	0	+
Enterobacter cloacae	A	10	0	+
	B	10	0	+
Salmonella enteritidis	A	10	0	+
	B	10	0	+
Salmonella typhimurium	A	10	0	+
	B	10	0	+
Salmonella typhi	A	10	0	+
	B	10	0	+
Legionella pneumophila	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	+
Acinetobacter calcoaceticus	A	10	0	+
	B	10	0	+
Bordetella bronchiseptica	A	10	0	+
	B	10	0	+
Chlamydia psittaci	A	10	0	+
	B	10	0	+
Fusobacterium necrophorum	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 $CaCO_3$). Dilution 1:64

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*

Buckeye Sanicare Lemon, Mint & Pint Quat 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 $CaCO_3$) in the presence of 5% organic serum. Dilution 1:64

Enterococcus faecalis-Vancomycin resistant (VRE)

Escherichia coli

Klebsiella pneumoniae

Pseudomonas aeruginosa

Community Associated Methicillin - Resistant Staphylococcus aureus (CA-MRSA)

Staphylococcus aureus-Methicillin Resistant (MRSA) and other antibiotic resistant strains

Staphylococcus aureus-Vancomycin Intermediate Resistant (VISA)

Staphylococcus epidermidis

Streptococcus faecalis

*Virucidal

Buckeye Sanicare Lemon, Mint & Pint Quat acts as a virucidal against:

HIV-1 (AIDS virus)
Hepatitis B Virus (HBV)
Hepatitis C Virus (HCV)
Herpes Simplex Virus Type 1
Herpes Simplex Virus Type 2
Human coronavirus
Influenza Type A Virus / Hong Kong
Adenovirus Type 4
Adenovirus Type 7 at 8 oz per gallon
Respiratory Syncytial Virus (RSV)
Rotavirus
Rubella (German Measles)
SARS Associated Coronavirus [SARS][cause of Severe Acute Respiratory Syndrome]
Vaccinia
(Animal Viruses:)
Avian polyomavirus
Canine distemper
Feline leukemia
Feline picornavirus
Pseudorabies (PRV)
Rabies

according to the *Virucidal Qualification Test*, modified in the presence of 5% organic serum and 400 ppm water hardness (calculated as $CaCO_3$). Dilution 1:64

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

Herpes Simplex Virus Type 2

Serial Dilutions (Test Virus in 5% V/V Organic Biostress Load)	Treated Diluted with 400 ppm Hard Water	Untreated Test Virus Untreated Control	Cytotoxicity Control
10^{-1}	T000	++++	T000
10^{-2}	0000	++++	0000
10^{-3}	0000	++++	0000
10^{-4}	0000	++++	0000
10^{-5}	0000	++++	0000
10^{-6}	0000	++++	0000
10^{-7}	0000	++++	0000
10^{-8}	0000	++++	0000

Conclusion: **Buckeye Sanicare Lemon, Mint & Pint Quat** effectively inactivated the test virus, Herpes Simplex Virus Type 2.

*Virucidal

Herpes Simplex Virus Type 1; HSV-1,VR-3, Hominis

Serial Dilutions (Test Virus in 5% V/V Organic Biostress Load)	Treated Diluted with 400 ppm Hard Water	Untreated Test Virus Untreated Control	Cytotoxicity Control
10^{-1}	0000	++++	T000
10^{-2}	0000	++++	0000
10^{-3}	0000	++++	0000
10^{-4}	0000	++++	0000
10^{-5}	0000	++++	0000
10^{-6}	0000	++++	0000
10^{-7}	0000	++++	0000
10^{-8}	0000	+000	0000

Conclusion: **Buckeye Sanicare Lemon, Mint & Pint Quat** effectively inactivated the test virus, Herpes Simplex Virus Type 1.

Influenza Virus Type A; Hong Kong/68-H3N2

Serial Dilutions (Test Virus in 5% V/V Organic Biostress Load)	Treated Diluted with 400 ppm Hard Water	Untreated Test Virus Untreated Control	Cytotoxicity Control
10^{-1}	0000	++++	0000
10^{-2}	0000	++++	0000
10^{-3}	0000	++++	0000
10^{-4}	0000	++++	0000
10^{-5}	0000	++++	0000
10^{-6}	0000	++++	0000
10^{-7}	0000	++++	0000
10^{-8}	0000	++++	0000

Conclusion: **Buckeye Sanicare Lemon, Mint & Pint Quat** effectively inactivated the test virus, Influenza Virus, Type A.

Adenovirus Type 4

Serial Dilutions (Test Virus in 5% V/V Organic Biostress Load)	Treated Diluted with 400 ppm Hard Water	Untreated Test Virus Untreated Control	Cytotoxicity Control
10^{-1}	0000	++++	T000
10^{-2}	0000	++++	0000
10^{-3}	0000	++++	0000
10^{-4}	0000	++++	0000
10^{-5}	0000	++++	0000
10^{-6}	0000	0000	0000
10^{-7}	0000	0000	0000
10^{-8}	0000	0000	0000

Conclusion: **Buckeye Sanicare Lemon, Mint & Pint Quat** effectively inactivated the test virus, Adenovirus, Type 4.

Vaccinia Virus; IHD Strain

Serial Dilutions (Test Virus in 5% V/V Organic Biostress Load)	Treated Diluted with 400 ppm Hard Water	Untreated Test Virus Untreated Control	Cytotoxicity Control
10^{-1}	0000	++++	0000
10^{-2}	0000	++++	0000
10^{-3}	0000	++++	0000
10^{-4}	0000	++++	0000
10^{-5}	0000	++++	0000
10^{-6}	0000	++++	0000
10^{-7}	0000	++++	0000
10^{-8}	0000	0000	0000

Conclusion: **Buckeye Sanicare Lemon, Mint & Pint Quat** effectively inactivated the test virus, Vaccinia.

Rubella (German Measles) Virus; Strain M-33

Serial Dilutions (Test Virus in 5% V/V Organic Biostress Load)	Treated Diluted with 400 ppm Hard Water	Untreated Test Virus Untreated Control	Cytotoxicity Control
10^{-1}	0000	++++	T000
10^{-2}	0000	++++	0000
10^{-3}	0000	++++	0000
10^{-4}	0000	++++	0000
10^{-5}	0000	++++	0000
10^{-6}	0000	0000	0000
10^{-7}	0000	0000	0000
10^{-8}	0000	0000	0000

Conclusion: **Buckeye Sanicare Lemon, Mint & Pint Quat** 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 $CaCO_3$). Dilution 1:64

Organism	# Carriers	# of Positives	Control
Trichophyton mentagrophytes	20	0	+
Candida albicans	20	0	+
Aspergillus niger	20	0	+

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SANI-CARE

LEMON MINT PINE QUAT™

ONE-STEP DISINFECTANT, GERMICIDAL DETERGENT AND DEODORANT

*Virucidal

Human Immunodeficiency Virus (HIV-1)

Evaluation of **Buckeye Sanicare Lemon, Mint & Pint Quat** for virucidal efficacy against dried virus (5% organic soil load) after a 4-minute exposure to a 1:64 dilution in synthetic hard water (400 ppm).

CPE Assay with MT2 Cells (Day 7)

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

Dilution Innoculated	Virus Control	Sample + Virus		Non-Virucidal Level of Disinfectant		Cytotoxicity Controls	
		Lot A	Lot B	Lot A	Lot B	Lot A	Lot B
10^{-1}	4/4	Toxic	Toxic	Toxic	Toxic	4/4	4/4
10^{-2}	4/4	Toxic	Toxic	Toxic	Toxic	4/4	4/4
10^{-3}	4/4	0/4	0/4	4/4	4/4	0/4	0/4
10^{-4}	4/4	0/4	0/4	4/4	4/4	0/4	0/4
10^{-5}	4/4	a	a	4/4	4/4	a	a
10^{-6}	2/4	a	a	0/4	0/4	a	a
Virus Titer ($-Log_{10} TCID_{50}$)	6.0	≤2.5	≤2.5	5.5	5.5		
Cytotoxicity Titer ($-Log_{10} TCID_{50}$)						2.5	2.5
Reduction of Virus Titer by test sample ($-Log_{10} TCID_{50}$)		≥3.5	≥3.5				

a = Virus not tested

Conclusion: **Buckeye Sanicare Lemon, Mint & Pint Quat** demonstrated virucidal activity against HIV-1 (AIDS Virus) in the CPE assay with MT2 cells.

E.P.A./Health Canada

EPA REG. NO.	47371-131-559
EPA EST. NO.	559-MO-1
PINE QUAT	DIN 01962108
MINT QUAT	DIN 01962078
LEMON QUAT	DIN 01962051

DIRECTIONS FOR USE:

Disinfects, cleans, and deodorizes the following hard, nonporous, inanimate surfaces: floors, walls, (non-medical) metal surfaces, (non-medical) stainless steel surfaces, glazed porcelain, plastic surfaces (such as polypropylene, polystyrene, acrylic, etc.). Remove heavy soil deposits from surface, then thoroughly wet surface with a use-solution of 2 ounces of the concentrate per gallon of water. (Use 8 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 by 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 use-solution daily or more often if the solution becomes visibly dirty or diluted.

TECHNICAL SPECIFICATIONS BUCKEYE SANICARE LEMON, MINT & PINE QUAT	
pH in concentrate	7.6 ± 0.2
pH 2 oz./gal.	7.0 ± 0.2
Weight/Gallon	8.34 lb/gal
Specific Gravity	1.00
Biodegradable	Yes
Concentration of Quat @ 2 oz./gal.	660 ppm

Active Ingredients:
Didecyl dimethyl ammonium chloride..... 2.54%
n-Alkyl (C_{14} 50%, C_{12} 40%, C_{16} 10%)
dimethyl benzyl ammonium chloride.....1.69%
Inert Ingredients..... 95.77%

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