



Maintenance Solutions

SUMMARY OF ANTIMICROBIAL ACTIVITY

HI-CON 64

Neutral Disinfectant & Detergent

Description

Hi-Con 64 Neutral Disinfectant & Detergent is an EPA registered, hard surface cleaner, disinfectant, and non-food contact sanitizer concentrate. This end use product formulation is a blend of a premium active ingredients with other inert ingredients in water. When properly diluted, **Hi-Con 64** can be used to disinfect or sanitize a wide range of hard, non-porous surfaces in animal premises and other institutional applications.

Advantages

Hi-Con 64 is a no-rinse neutral pH disinfectant cleaner that disinfects, cleans, and deodorizes hard, non-porous, non-food contact surfaces in one labor-saving step when used according to the disinfectant directions. **Hi-Con 64** has been formulated to aid in the reduction of cross-contamination on treated hard, non-porous surfaces not only in hospitals, but also in schools, institutions, and industry.

Regulatory Summary

Physical Properties

EPA Registration No.	10324-154-
Sub-registrant No.	8325
USDA Authorization	None
California Status	
Canadian PCP#	None
Canadian Din #	None

pH of Concentrate	6.5 – 8.5
Specific Gravity @ 25°C	0.99 – 1.02
Pounds per gallon @ 25°C	8.31 – 8.49

Flash Point (PMCC)	>221°F
% Quat (mol. wt.360.5)	4.22 – 4.44
% Volatile	93.5 – 94.5

Disinfectant Performance:

This product kills the following bacteria in 10 minutes at 2 oz. per gal. of 400 ppm hard water (660 ppm active) and 5% soil on hard, non-porous surfaces:

Organism	ATCC#	Carrier Population (Log₁₀)	# Positive Carriers
<i>Pseudomonas aeruginosa</i>	15442	6.41, 6.42, 6.41	3/60, 6/60, 4/60
<i>Salmonella enterica</i>	10708	6.01	1/60, 1/60, 0/60
<i>Staphylococcus aureus</i>	6538	6.48, 6.41, 6.56	2/60, 3/60, 2/60
<i>Acinetobacter baumannii</i>	19003	6.71	0/10, 0/10
<i>Acinetobacter lwoffii</i>	9957	5.60	0/10, 0/10
<i>Acinetobacter lwoffii</i>	15309	5.76	0/10, 0/10
<i>Bordetella bronchiseptica</i>	10580	6.97	0/10, 0/10
<i>Citrobacter freundii</i>	8090	5.59	0/10, 0/10
<i>Enterobacter agglomerans</i>	27155	5.59	0/10, 0/10
<i>Enterobacter cloacae</i>	13047	7.52	0/10, 0/10
<i>Enterococcus faecalis</i>	19433	5.79	0/10, 0/10
<i>Enterococcus faecalis (VRE)</i>	51299	7.11	0/10, 0/10
<i>Enterococcus hirae</i>	10541	4.38	0/10, 0/10
<i>Escherichia coli</i> (Carbapenem Resistant)	CDC 81371	5.88, 5.52	0/10, 0/10
<i>Escherichia coli</i>	11229	7.11	0/10, 0/10
<i>Escherichia coli</i> (ESBL)	BAA-196	6.90	0/10, 0/10
<i>Escherichia coli</i> (Tetracycline Resistant)	47041	5.49	0/10, 0/10
<i>Escherichia coli</i> O157:H7	35150	6.90	0/10, 0/10
<i>Fusobacterium necrophorum</i>	27852	5.76	0/10, 0/10
<i>Klebsiella aerogenes</i>	13048	7.37	0/10, 0/10
<i>Klebsiella oxytoca</i>	13182	6.03	0/10, 0/10
<i>Klebsiella pneumonia</i> (Carbapenem-Resistant) (NDM-1)	BAA-2146	6.80	0/10, 0/10
<i>Klebsiella pneumoniae</i>	13883	6.05	0/10, 0/10
<i>Listeria monocytogenes</i>	19117	6.89	0/10, 0/10
<i>Micrococcus luteus</i>	14452	5.04	0/10, 0/10
<i>Micrococcus luteus</i>	4698	5.68	0/10, 0/10
<i>Mycoplasma gallisepticum</i>	19610	4.00	0/10, 0/10
<i>Pasteurella multocida</i>	12947	7.12	0/10, 0/10
<i>Proteus vulgaris</i>	13315	4.28	0/10, 0/10
<i>Proteus vulgaris</i>	9920	5.09	0/10, 0/10
<i>Pseudomonas aeruginosa</i> Tetracycline Resistant	27853	6.54	0/10, 0/10
<i>Pseudomonas cepacia</i>	25416	6.21	0/10, 0/10
<i>Salmonella enterica</i>	23564	4.96	0/10, 0/10
<i>Salmonella enterica serotype pullorum</i>	19945	5.85	0/10, 0/10
<i>Salmonella enteritidis</i>	4931	5.11	0/10, 0/10
<i>Salmonella Typhi</i>	6539	6.92	0/10, 0/10
<i>Salmonella typhimurium</i>	23564	5.75	0/10, 0/10
<i>Serratia marcescens</i>	14756	6.79	0/10, 0/10
<i>Serratia marcescens</i>	9103	6.78	0/10, 0/10
<i>Shigella flexneri</i>	12022	4.41	0/10, 0/10
<i>Shigella flexneri</i>	9380	6.30	0/10, 0/10
<i>Shigella sonnei</i>	25931	6.02	0/10, 0/10
<i>Staphylococcus aureus</i>	14154	5.96	0/10, 0/10
<i>Staphylococcus aureus</i>	25923	5.82	0/10, 0/10
<i>Staphylococcus aureus</i> (CA-MRSA) Genotype USA400	Genotype USA400	6.80	0/10, 0/10

Organism	ATCC#	Carrier Population (Log₁₀)	# Positive Carriers
Staphylococcus aureus (CA-MRSA)	Genotype USA300	5.01	0/10, 0/10
Staphylococcus aureus	33586	4.86	0/10, 0/10
Staphylococcus aureus (MRSA)	33592	6.73	0/10, 0/10
Staphylococcus aureus (VISA)	HIP 5836	6.51	0/10, 0/10
Staphylococcus epidermidis	14990	6.19	0/10, 0/10
Staphylococcus epidermidis (MDR)	51625	5.93	0/10, 0/10
Staphylococcus haemolyticus	29970	5.98	0/10, 0/10
Streptococcus agalactiae	13813	6.75	0/10, 0/10
Streptococcus mutans	25175	4.11	0/10, 0/10
Streptococcus pneumoniae (Penicillin Resistant)	51915	4.98	0/10, 0/10
Streptococcus pyogenes	19615	4.67	0/10, 0/10
Vibrio cholera	11623	6.00	0/10, 0/10
Yersinia enterocolitica	23715	7.08	0/10, 0/10
Chlamydia psittaci*	VR-125	7.25	≥6.75, ≥6.75

*Note – Chlamydia psittaci evaluated by ASTM E1053. Results shown are in Log₁₀ bacterial reduction.

Virucidal Performance:

This product kills the following viruses in 10 minutes at 2 oz. per gal. of 400 ppm hard water (660 ppm active) and 5% soil on hard, non-porous surfaces:

Organism	Dried Virus Control	Virus Population (Log₁₀)	Log Reduction (Log₁₀)
Avian Influenza A Virus (H5N1)	CDC 2006719965	5.60	≥ 3.50, ≥3.50
Avian Influenza A Virus (H3N2)	VR-2072	4.75	≥ 4.25, ≥ 4.25, ≥ 4.25
Cytomegalovirus	AD-169	5.10	≥ 3.00, ≥ 3.00
Hantavirus	PHV	5.00	≥ 3.50, ≥ 3.50
Hepatitis B (HBV)	Duck Hepatitis B Virus	4.79, 4.79	4.79, 4.79, 4.79
Hepatitis C (HCV)	Bovine Viral Diarrhea Virus	5.88, 5.93	5.88, 5.88, 5.93
Herpes Simplex Type 1 Virus	VR-733	5.50	≥ 5.00, ≥ 5.00
Herpes Simplex Type 2 Virus	VR-734	6.00	≥ 5.50, ≥ 5.00
Human Coronavirus	VR-740	4.50	≥ 4.00, ≥ 4.00
Human Immunodeficiency Virus Type 1*** (AIDS Virus)	HTLV-III _B	5.00	≥ 4.50, ≥ 4.50
Influenza A Virus (H1N1)	Strain A/PR/8/34	5.60	≥ 3.50, ≥ 3.50
Influenza A Virus (H3N2)	VR-544	6.50	≥ 6.00, ≥ 6.00
Norovirus	ATCC VR-782	5.89	4.39, 3.92
Respiratory Syncytial Virus	VR-26	4.50	≥ 4.00, ≥ 4.00
SARS-CoV-2 (COVID-19 virus) (2019-nCoV)***	USA-WA1/2020	5.75	≥ 5.25, ≥ 5.00, ≥ 5.25
Vaccinia virus	VR-119	6.75	≥ 6.25, ≥ 6.25

***Indicates a 2-minute contact time required

Animal Premise Virucidal Performance:

This product kills the following viruses in 10 minutes at 2 oz. per gal. of 400 ppm hard water (660 ppm active) and 5% soil on hard, non-porous surfaces:

Organism	Dried Virus Control	Virus Population (Log ₁₀)	Log Reduction (Log ₁₀)
Avian Infectious Bronchitis Virus	Strain Beaudette IB42	6.42	≥ 5.92, ≥ 5.92
Avian Influenza A Virus (H5N1)	CDC 2006719965	5.60	≥ 3.50, ≥ 3.50
Avian Influenza A Virus (H3N2)	VR-2072	4.75	≥ 4.25, ≥ 4.25, ≥ 4.25,
Canine Coronavirus	VR-809	4.50	≥ 4.00, ≥ 4.00
Canine Distemper Virus	VR-128	6.25	≥ 5.75, ≥ 5.75
Canine Influenza Virus (H3N8)	Cornell University	6.00	≥ 5.50, ≥ 5.50
Feline Calicivirus	VR-782	5.89	4.39, 3.92
Feline Picornavirus	VR-649	4.50	≥ 4.00, ≥ 4.00
Infectious Bovine Rhinotracheitis Virus	VR-188	4.50	≥ 4.00, ≥ 4.00
Pseudorabies Virus	VR-135	6.25	≥ 5.75, ≥ 5.75
Swine Influenza A Virus (H1N1)	Strain A/Swine/1976/31	5.35	≥ 3.25, ≥ 3.25
Transmissible Gastroenteritis Virus	TGE	4.75	≥ 4.25, ≥ 4.25

Animal Premise Virucidal Performance:

This product kills the following viruses in 10 minutes at 9 oz. per gal. of 400 ppm hard water (2970 ppm active) and 5% soil on hard, non-porous surfaces:

Organism	Dried Virus Control	Virus Population (Log ₁₀)	Log Reduction (Log ₁₀)
Canine Parvovirus CPV	CPV Type 2b	7.50	4.00, 4.00
Rabies		5.35	≥ 3.25, ≥ 3.25

Non-Food Contact Sanitizing Performance:

This product is an effective one-step sanitizer in 3 minutes at 2 oz. per gal. of 400 ppm hard water (660 ppm active) and 5% soil on hard, non-porous surfaces:

Organism	ATCC#	Average Population (Log ₁₀)	Log Reduction (Log ₁₀)
Klebsiella pneumonia	4352	6.04	≥ 4.56, ≥ 4.17, ≥ 4.56
Staphylococcus aureus	6538	6.69	≥ 5.21, ≥ 5.21, ≥ 5.21

Mildewstatic Performance:

This product controls the following mold at 2 oz. per gal. of 400 ppm hard water (660 ppm active) and 5% soil on hard, non-porous surfaces for up to 7 days:

Organism	Tile	Untreated (% Covered)	7 days Post Treatment (% Covered)
Aspergillus niger (ATCC 16404)	1	90%	0%
	2	70%	0%
	3	90%	0%
	4	80%	0%
	5	80%	0%
	6	90%	0%
	7	80%	0%
	8	70%	0%
	9	90%	0%
	10	70%	0%

Fungicidal Performance:

This product kills the following fungi in 10 minutes at 2 oz. per gal. of 400 ppm hard water (660 ppm active) and 5% soil on hard, non-porous surfaces:

Organism	ATCC#	Carrier Population (Log ₁₀)	# Positive Carriers
Candida Albicans	10231	5.75	0/10, 0/10
Trichophyton mentagrophytes	9533	4.78	0/10, 0/10