

TECHNICAL BULLETIN

Century Q 256

One Step Disinfectant Germicidal Detergent and Deodorant

Disinfectant, Cleaner, Mildewstat, Fungicide, Virucide*, Deodorizer for Hospitals, Nursing Homes, Households, Commercial, Institutional, and Industrial Use. Non-Dulling to Floors (Floor Finish).

HOSPITAL DISINFECTANT CLEANER: Century Q 256 is a one-step neutral pH disinfectant that is effective against a broad spectrum of bacteria, is virucidal* (including HIV-1, HBV and HCV), fungicidal and inhibits the growth of mold and mildew and their odors when used as directed.

Century Q 256 cleans quickly by removing dirt, grime, mold, mildew, food residue, body oils, dead skin, blood and other organic matter commonly found in hospitals and in health care facilities. This formulation is recommended for use in: Hospitals, medical and dental offices, nursing homes, public rest rooms, institutions, schools, colleges, restaurants, hotels, veterinary clinics, animal life science laboratories, grooming establishments, funeral homes.

SURFACE SAFE: Century Q 256 cleans, disinfects and deodorizes in one step with no rinsing required. It's non-abrasive formula is non-dulling to metal interlocking floor finishes. It is also safe for use on the following hard, non-porous environmental surfaces: vinyl, painted surfaces, plastic surfaces, glazed porcelain (toilets and urinals), ceramic tile, stainless steel, chrome, laminated surfaces and baked enamel surfaces associated with floors, walls, ceilings, tables, chairs, countertops, telephones & fixtures. A potable water rinse is required when disinfecting food contact surfaces. Do not use on glasses, dishes and utensils.

NON-ACID BOWL & BATHROOM DISINFECTANT CLEANER: Century Q 256 is also a non-acid bowl and bathroom cleaner, which cleans, disinfects and deodorizes all restroom surfaces in one easy step.

MOLD AND MILDEW CONTROL: Use Century Q 256 to control the growth of mold and mildew and their odors on hard, nonporous surfaces.

MALODOR COUNTERACTANCY: Century Q 256 eliminates odors and odor causing bacteria in restroom areas behind and under sinks and counters, and storage areas where bacterial growth can cause malodors.

Advance Cleaning Formula

Century Q 256 is highly concentrated containing over 25.9% actives (16.96% Quat and a 9% detergent package) that cleans surfaces without harshness better than most dilutable products.

Century Q 256 Specifications

Appearance	Red Liquid, Floral Odor
pH (undiluted)	7.0 - 8.0 (Neutral)
Flashpoint	None
Dilutions	1/2 oz./gal. (1:256)
	2 oz./gal. Canine Parvo Virus
% Active	15.36% (Quaternary)
Foam	Low - Moderate
EPA Registration Number	10324-141-5449

*** Complies with Bloodborne Pathogens Act. Century Q 256 kills bloodborne pathogens HBV, HCV & HIV-1, making it suitable for low level disinfection of surfaces contaminated with blood or bodily fluids.**

Effective against Canine Parvovirus (CPV) at 2 ounces per gallon of water.



Efficacy Test Results for Century Q 256

Bactericide / Hospital Disinfection (at 1/2 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 with a 10 minute contact time against:

	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 choleraesuis 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

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 choleraesuis and Staphylococcus aureus. Killing of 59 out of 60 carriers is required (total carriers = 540).

Supplemental Bacterial Organisms

	Carrier Population	Sample	# Carriers	# Positive
Acinetobacter baumannii ATCC 19003	5.1 X 10 ⁶ CFU/Carrier	A & B	10, 10	0/10, 0/10
Acinetobacter lwoffii ATCC 15309	5.7 X 10 ⁵ CFU/Carrier	A & B	10, 10	0/10, 0/10
Acinetobacter lwoffii ATCC 9957	4.0 X 10 ⁵ CFU/Carrier	A & B	10, 10	0/10, 0/10
Bordetella bronchiseptica ATCC 10580	9.4 X 10 ⁶ CFU/Carrier	A & B	10, 10	0/10, 0/10
Citrobacter freundii ATCC 8090	3.9 X 10 ⁵ CFU/Carrier	A & B	10, 10	0/10, 0/10
Enterobacter aerogenes ATCC 13048	2.35 X 10 ⁷ CFU/Carrier	A & B	10, 10	0/10, 0/10
Enterobacter agglomerans ATCC 27155	3.9 X 10 ⁵ CFU/Carrier	A & B	10, 10	0/10, 0/10
Enterobacter cloacae ATCC 13047	3.3 X 10 ⁷ CFU/Carrier	A & B	10, 10	0/10, 0/10
Enterococcus faecalis ATCC 19433	6.2 X 10 ⁵ CFU/Carrier	A & B	10, 10	0/10, 0/10
Enterococcus faecalis Vancomycin Resistant (VRE) 51299	1.3 X 10 ⁷ CFU/Carrier	A & B	10, 10	0/10, 0/10
Escherichia coli ATCC 11229	1.3 X 10 ⁷ CFU/Carrier	A & B	10, 10	0/10, 0/10
Escherichia coli Tetracycline Resistant ATCC 47041	3.1 X 10 ⁵ CFU/Carrier	A & B	10, 10	0/10, 0/10
Fusobacterium necrophorum ATCC 27852	5.8 X 10 ⁵ CFU/Carrier	A & B	10, 10	0/10, 0/10
Klebsiella oxytoca ATCC 13182	1.07 X 10 ⁶ CFU/Carrier	A & B	10, 10	0/10, 0/10
Klebsiella pneumoniae ATCC 13883	1.2 X 10 ⁶ CFU/Carrier	A & B	10, 10	0/10, 0/10
Listeria monocytogenes ATCC 19117	7.7 X 10 ⁶ CFU/Carrier	A & B	10, 10	0/10, 0/10
Micrococcus luteus ATCC 14452	1.1 X 10 ⁵ CFU/Carrier	A & B	10, 10	0/10, 0/10
Micrococcus luteus ATCC 4698	4.8 X 10 ⁵ CFU/Carrier	A & B	10, 10	0/10, 0/10
Pasturella multocida ATCC 12947	1.32 X 10 ⁷ CFU/Carrier	A & B	10, 10	0/10, 0/10
Proteus vulgaris ATCC 13315	1.9 X 10 ⁴ CFU/Carrier	A & B	10, 10	0/10, 0/10
Proteus vulgaris ATCC 9920	1.24 X 10 ⁵ CFU/Carrier	A & B	10, 10	0/10, 0/10
Pseudomonas aeruginosa Tetracycline Resistant ATCC 27853	3.5 X 10 ⁶ CFU/Carrier	A & B	10, 10	0/10, 0/10
Pseudomonas cepacia ATCC 25416	1.63 X 10 ⁶ CFU/Carrier	A & B	10, 10	0/10, 0/10
Salmonella choleraesuis ATCC 23564	9.2 X 10 ⁴ CFU/Carrier	A & B	10, 10	0/10, 0/10
Salmonella choleraesuis ATCC 4931	1.3 X 10 ⁶ CFU/Carrier	A & B	10, 10	0/10, 0/10
Salmonella choleraesuis serotype pullorum ATCC 19945	7.1 X 10 ⁵ CFU/Carrier	A & B	10, 10	0/10, 0/10
Salmonella enteritidis ATCC 4931	1.52 X 10 ⁶ CFU/Carrier	A & B	10, 10	0/10, 0/10
Salmonella typhi ATCC 6539	8.3 X 10 ⁶ CFU/Carrier	A & B	10, 10	0/10, 0/10
Serratia marcescens ATCC 14756	6.2 X 10 ⁶ CFU/Carrier	A & B	10, 10	0/10, 0/10
Serratia marcescens ATCC 9103	6.0 X 10 ⁶ CFU/Carrier	A & B	10, 10	0/10, 0/10
Shigella flexneri ATCC 12022	2.6 X 10 ⁴ CFU/Carrier	A & B	10, 10	0/10, 0/10
Shigella flexneri ATCC 9380	1.99 X 10 ⁶ CFU/Carrier	A & B	10, 10	0/10, 0/10
Shigella sonnei ATCC 25931	1.04 X 10 ⁶ CFU/Carrier	A & B	10, 10	0/10, 0/10
Staphylococcus aureus ATCC 14154	9.2 X 10 ⁵ CFU/Carrier	A & B	10, 10	0/10, 0/10
Staphylococcus aureus ATCC 25923	6.6 X 10 ⁶ CFU/Carrier	A & B	10, 10	0/10, 0/10
Staphylococcus aureus sub species aureus ATCC 33586	7.2 X 10 ⁴ CFU/Carrier	A & B	10, 10	0/10, 0/10
Staphylococcus aureus Methicillin Resistant (MRSA) 335592	5.4 X 10 ⁶ CFU/Carrier	A & B	10, 10	0/10, 0/10
Staphylococcus aureus Vancomycin Intermediate Resistant (VISA) 5836	3.2 X 10 ⁶ CFU/Carrier	A & B	10, 10	0/10, 0/10
Staphylococcus epidermidis ATCC 14990	1.56 X 10 ⁶ CFU/Carrier	A & B	10, 10	0/10, 0/10
Staphylococcus epidermidis Antibiotic Resistant ATCC 51625	8.6 X 10 ⁵ CFU/Carrier	A & B	10, 10	0/10, 0/10
Staphylococcus haemolyticus ATCC 29970	9.5 X 10 ⁵ CFU/Carrier	A & B	10, 10	0/10, 0/10
Streptococcus agalactiae ATCC 13813	5.6 X 10 ⁶ CFU/Carrier	A & B	10, 10	0/10, 0/10
Streptococcus pneumoniae Penicillin Resistant ATCC 51915	9.6 X 10 ⁴ CFU/Carrier	A & B	10, 10	0/10, 0/10
Streptococcus pyogenes ATCC 19615	4.7 X 10 ⁴ CFU/Carrier	A & B	10, 10	0/10, 0/10
Vibrio cholera ATCC 11623	1.0 X 10 ⁶ CFU/Carrier	A & B	10, 10	0/10, 0/10
Yersinia enterocolitica ATCC 23715	1.2 X 10 ⁷ CFU/Carrier	A & B	10, 10	0/10, 0/10

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).

Virucidal against (at 1/2 ounce per gallon):

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

	Dried Virus Control (Log ₁₀)	Sample	Result (Log ₁₀)	Log Reduction (Log ₁₀)
Canine Coronavirus ATCC VR-809	4.5, 4.5, 4.75	A, B & C	< 0.5 (all)	> 4.0, 4.0, 4.25
Canine Distemper virus ATCC VR-128	6.25, 6.25, 6.75	A, B & C	< 0.5 (all)	> 5.75, 5.75, 6.25
Feline Picornavirus ATCC VR-649	4.5, 4.5, 5.75	A, B & C	< 0.5 (all)	> 4.0, 4.0, 5.25
Hepatitis B Virus (HBV)	5.06, 5.20, 5.06	A, B & Confirm B	0.27, 0.41, 0.27	4.79 (all)
Hepatitis C Virus (HCV)	6.21, 6.21, 6.06	A, B & Confirm B	0.24, 0.42, 0.13	5.97, 5.79, 5.93
Herpes Simplex Virus Type 1 ATCC VR-773	5.5, 5.5, 6.0	A, B & C	< 0.5 (all)	> 5.0, 5.0, 5.5
Herpes Simplex Virus Type 2 ATCC VR-734	6.0, 6.0, 5.75	A, B & C	< 0.5 (all)	> 5.5, 5.5, 5.25
Human Coronavirus ATCC VR-740	4.5, 4.5, 4.5	A, B & C	< 0.5 (all)	> 4.0, 4.0, 4.0
Human Immunodeficiency Virus type 1 (HIV) HTLV-111B	5.75	A, B & C	< 1.5 (all)	> 4.25 (all)
Influenza A virus ATCC VR-544	6.5, 6.5, 6.0	A, B & C	< 0.5 (all)	> 6.0, 6.0, 5.5
Pseudorabies virus ATCC VR-135	6.25, 6.25, 5.5	A, B & C	< 0.5 (all)	> 5.75, 5.75, 5.0
Respiratory syncytial virus ATCC VR-26	4.5, 4.5, 5.0	A, B & C	< 0.5 (all)	> 4.0, 4.0, 4.5
Vaccinia virus ATCC VR-119	6.75, 6.75, 6.5	A, B & C	< 0.5 (all)	> 6.25, 6.25, 6.0

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.

Virucidal against (at 2 ounces per gallon)

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

	Dried Virus Control	Sample	Result	Log Reduction
Canine Parvovirus Type 2b, Nike Strain	7.5 log ₁₀	A & B	<3.5, 3.5 Log ₁₀	>4.0, 4.0 Log ₁₀

Testing is performed per EPA Guidance (DISS/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.

Fungicidal against (at 1/2 ounce per gallon)

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

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

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

Mold and Mildew Control (at 1/2 oz. per gal.)

Use this product to control the growth of mold and mildew and their odors on hard, non-porous surfaces.

Thoroughly wet all treated surfaces completely. Let air dry. Repeat application weekly or when growth or odor reappears.

	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%

Bacteria

Acinetobacter baumannii	Can cause pneumonia, urinary tract infections (UTI's), soft tissue infections, bacteremia. Opportunistic pathogen.
Acinetobacter Iwoffii	Can cause pneumonia, urinary tract infections (UTI's), soft tissue infections, bacteremia. Opportunistic pathogen.
Bordetella bronchiseptica	Typically an animal pathogen, causes "Kennel Cough". Normal respiratory flora of cats and dogs, not humans.
Citrobacter freundii	Can cause urinary tract infections, and wound infections. Can cause diarrhea. Found in GI tract in healthy humans.
Enterobacter aerogenes	Causes bacteremia, UTI's, post surgical wound infections and other nosocomial infections.
Enterobacter agglomerans ATCC 27155	Causes nosocomial infections. Lives in water, sewage, soil, dairy products and feces of animals and humans.
Enterococcus faecalis	Causes UTI's, subacute endocarditis, wound infections, bacteremia. Occurs in human/animal feces, insects & plants.
Enterococcus faecalis (Vanomycin Resistant) VRE	Causes severe pneumonia, UTI's, lung infections, wound infections, bacteremia. Major cause of nosocomial infections.
Escherichia coli	Most common cause of UTI's. Common cause of neonatal meningitis. Food borne pathogen (undercooked meat, milk).
Escherichia coli (Tetracycline Resistant)	A strain of E. coli that demonstrates resistance to the antibiotic, Tetracycline.
Fusobacterium necrophorum	Cause of human bite infections and chronic ear infections. Anaerobic organism, part of normal throat flora.
Klebsiella oxytoca	Normal human GI flora. Can cause UTI's, respiratory infections, bacteremia, and wound infections.
Klebsiella pneumoniae	Causes infection of the urinary and respiratory tracts. Causative agent of pneumonia.
Listeria monocytogenes	Can cause food borne illness, listeriosis. Dairy product outbreaks due to post pasteurization contamination.
Micrococcus luteus	Can cause infections in the immunocompromised/hospitalized-typically isolated from infected catheters and shunts.
Pasturella multocida	Infection in humans is a local wound infection, usually following an animal bite or scratch.
Proteus vulgaris	Occurs in the intestine of humans & animals. Causes UTI, wound, respiratory, ear and eye infections.
Pseudomonas aeruginosa	Causes infant diarrhea, conjunctivitis, burn infections, cystic fibrosis, folliculitis, etc. Can survive in moist hospital environments.
Tetracycline Resistant Pseudomonas aeruginosa	Same as Pseudomonas Aeruginosa, except resistant to Tetracycline.
Pseudomonas cepacia	(Also called Burkholderia cepacia). Opportunistic pathogen, especially in patients with cystic fibrosis
Salmonella choleraesuis	Salmonella+Time+Food=Food Poisoning. Vomiting, Nausea, Gastroenteritis and Diarrhea.
Salmonella choleraesuis serotype pullorum	Salmonella+Time+Food=Food Poisoning. Causes gastroenteritis, bacteremia and arthritis.
Salmonella enteritidis	Salmonella+Time+Food=Food Poisoning. Vomiting, Nausea, Gastroenteritis and Diarrhea.
Salmonella typhi	Causes typhoid fever in humans.
Serratia marcescens	Opportunistic pathogen. Causes chronic urinary tract infections, pneumonia, bacteremia.
Shigella flexneri	Seen in the US among sexually active gay men.
Shigella sonnei	Causes bacillary dysentery characterized by severe cramping, abdominal pain and bloody diarrhea.
Staphylococcus aureus	Major cause of hospital and community acquired infections. Can cause food poisoning. Causes skin infections such as cellulitis, boils, carbuncles and post operative wound infections. Causes bacteremia, endocarditis & pneumonia.
Staphylococcus aureus	Huge infections control issue in hospitals. Hospital spread primarily on the hands of medical personnel.
((Methicillin Resistant) MRSA)	Found in nose of 20-40% of normal healthy people. Can multiply is food releasing toxins that induce vomiting & diarrhea.
Staphylococcus aureus-Vancomycin	
Intermediate Resistant (VISA)	Same as MRSA, but resistant to Vancomycin. This is a more rare isolate, very few confirmed isolates.
Staphylococcus aureus sub species aureus	Same as Staphylococcus aureus.
Staphylococcus haemolyticus	Infrequently cause of soft-tissue infections, usually in immunocompromised patients.
Staphylococcus epidermidis	Causes a variety of hospital acquired infections. Most common contaminate in positive blood cultures.
Antibiotic resistant Staphylococcus epidermidis	Same as Staphylococcus epidermidis, but resistant to common antibiotics.
Streptococcus pyogenes	Transmission from person to person by close contact. May also be transmitted by contaminated food.
Streptococcus agalactiae	Leading cause of neonatal sepsis & meningitis. Group B Streptococci. Can colonize the respiratory tract of kids & young adults.
Streptococcus pneumoniae Penicillin Resistant	Primary cause of bacterial pneumoniae, meningitis, and otitis media. Most strains are susceptible to Penicillin.
Vibrio cholera	Epidemic cholera is spread by contaminated water under conditions of poor sanitation. Found in salt water worldwide.
Yersinia enterocolitica	Primarily an animal pathogen. Occasional transmission to humans through direct or indirect contact.

Virucidal

Canine Coronavirus	Causes respiratory infections in canines (dogs).
Canine Parvovirus (2 oz/gal)	Highly infectious disease in canines. High mortality.
Canine Distemper Virus	Highly contagious disease among dogs causing fever, gastrointestinal and respiratory problems
Feline Picornavirus	Produces a respiratory disease, conjunctivitis and vesiculation in the mouth of cats
Hepatitis B (HBV)	A blood borne pathogen that causes serious degeneration of the liver.
Hepatitis C (HCV)	Causes inflammation of the liver. Most common chronic blood borne infection in the US.
Herpes Simplex virus Type 1	Virus causing fever blisters and canker sores caused by colds.
Herpes Simplex virus Type 2	Causes lesions on penis, urethra, vulva, vagina and skin on buttocks.
HIV-1 (AIDS virus)	Causes severe damage to the human immune system often leading to death.
Human Coronavirus	Causes both upper and lower respiratory tract infections. Can cause Gastroenteritis. Associated with SARS.
Influenza A/PR Virus	Virus that causes the flu. Transmitted from person to person via aerosol route (Coughing and sneezing).
Pseudorabies Virus	Causes an acute viral infection of the central nervous system in mammals, primarily in swine.
Respiratory syncytial virus	A paramyxovirus that is the principal cause of pneumonia and bronchiolitis in small children and infants. Highly contagious.
Vaccinia Virus (Pox virus)	Pox virus used for vaccination of man for immunity against small pox.

Fungicidal

Aspergillus niger	Mildew. May cause aspergillosis, pneumonia, skin & eye infections.
Trichophyton mentagrophytes	Athletes Foot Fungus (a cause of Ringworm)
Candida albicans	Exists as both fungi and yeast. Causes skin rashes.

Multi-Clean®

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