



Maintenance Solutions

SUMMARY OF ANTIMICROBIAL ACTIVITY

FRESH BREEZE TB

RTU Detergent & Disinfectant

Description

Fresh Breeze TB RTU Detergent & Disinfectant is a broad spectrum hard surface disinfectant. When used as directed, this product will deliver effective biocidal action against bacteria, fungi, and viruses. This formulation is a blend of a premium active ingredients and inerts: surfactants, chelates, and water. Biocidal performance is attained when this product is used as is. **Fresh Breeze TB** can be used to disinfect a wide variety of hard surfaces such as floors, walls, and countertops in hospitals, households, and institutions.

Regulatory Summary

Physical Properties

EPA Registration No.	1839-83-8325
USDA Authorization	None
California Status	
Canadian PCP#	None
Canadian Din #	None

pH of Concentrate	11.7
Specific Gravity @ 25°C	1.0042
Pounds per gallon @ 25°C	8.38

Flash Point (PMCC)	>200°F
% Quat (mol. wt.360.5)	0.21 – 0.22
% Volatile	98.0 +

Summary of Antimicrobial Test Results

FRESH BREEZE TB is a Hospital-grade Disinfectant and detergent, Virucide, Fungicide, Mildewstat, and Cleaner. Listed below, is a summary of the Antimicrobial Claims and a review of the etiology for each microbe.

Efficacy Claim No.	Name of Organism	Category and/or Source	Contact Time
VIRUCIDAL ACTIVITY (when used on environmental, inanimate hard surfaces)			
1	Canine Parvovirus	ATCC VR-2006	10 minutes
2	Bovine Viral Diarrhea Virus (BVDV)		5 minutes
3	Feline Calicivirus		30 seconds
4	Rabies Virus		30 seconds
5	Norovirus (Norwalk Virus)		30 seconds
6	Human Coronavirus		2 minutes
7	Hepatitis A Virus (HAV)	Hepadnavirus Testing	10 minutes
8	Hepatitis B Virus (HBV)	Hepadnavirus Testing	5 minutes
9	Hepatitis C Virus (HCV)	Hepadnavirus Testing	5 minutes
10	Human Immunodeficiency Virus (HIV)	HTLV-III _{RF}	1 minute
11	Poliovirus type 1	Chat strain	10 minutes
12	Human Coronavirus		2 minutes
13	SARS associated Coronavirus		2 minutes
14	Rhinovirus type 39 (ATCC VR-340)	(ATCC VR-340)	3 minutes
15	Rotavirus		3 minutes
BACTERICIDAL ACTIVITY AOAC test Methods (under GLP) in presence of 5% blood serum			
16	Mycobacterium tuberculosis BCG	BCG	5 minutes
17	Listeria monocytogenes	ATCC 35152	3 minutes
18	Yersinia enterocolitica	ATCC 23715	3 minutes
19	Enterococcus faecium	ATCC 6569	3 minutes
20	Corynebacterium ammoniagenes	ATCC 6871	3 minutes
21	Salmonella typhi	ATCC 6539	3 minutes
22	Escherichia coli	ATCC 11229	3 minutes
23	Escherichia coli 0157:H7	ATCC 43895	3 minutes
24	Avian Influenza A (H3N2)	ATCC VR-2072	2 minute
25	Avian Influenza A (H9N2)	Charles River Labs	2 minutes
26	Pseudomonas aeruginosa	ATCC 15442	3 minutes
27	Salmonella choleraesuis	ATCC 10708	3 minutes
28	Staphylococcus aureus	ATCC 6538	3 minutes
29	Vancomycin intermediate resistant Staphylococcus aureus (VISA)	CDC Isolate 99287 (reduced susceptibility to Vancomycin)	3 minutes
30	Methicillin resistant Staphylococcus aureus (MRSA)	ATCC 33593 (METHICILLIN resistant)	3 minutes
31	Community Associated Methicillin resistant Staphylococcus aureus (CA-MRSA)	NRS 123 Genotype USA400	10 minutes
32	Community Associated Methicillin resistant	NRS 384 Genotype	10 minutes

	Staphylococcus aureus (CA-MRSA)	USA300	
33	Vancomycin resistant Enterococcus faecalis (VRE)	ATCC 51575 (VANCOMYCIN resistant)	3 minutes
34	Methicillin resistant Staphylococcus epidermidis	ATCC 51625	3 minutes
FUNGICIDAL ACTIVITY			
35	Trichophyton mentagrophytes	ATCC 9533	10 minutes

Summary of Antimicrobial Efficacy – Etiology

Pathogenic Microorganism	Description
BACTERIA	
Pseudomonas aeruginosa	Gram negative bacteria identified as a major cause of hospital acquired (nosocomial) infections. Causes wound infections (especially burn), meningitis, pneumonia and eye infections. Required for Hospital Disinfectants.
Staphylococcus aureus	Gram positive bacteria identified as a major cause of hospital acquired (nosocomial) infections. Colonizes food and secretes enterotoxins which cause food poisoning after ingestion. Causes wound infections, septicemia, endocarditis, meningitis, osteomyelitis and pneumonia. Required for Hospital Disinfectants.
Salmonella choleraesuis	Gram negative bacteria associated with acute gastroenteritis and septicemia. Required for Hospital Disinfectants.
Listeria monocytogenes	Gram positive (rod shape) bacteria. Considered a potent food pathogen. Found in raw meat and poultry. Infections can result in meningitis or sepsis.
Escherichia coli	Gram negative bacteria spread by anal/oral route of infection, resulting in diarrhea outbreaks. Associated with urinary tract infections and bacteremia. E. coli 0157:H7 is the organism responsible for the virulent “jack-in-the-box” disease.
Enterococcus faecalis	Gram positive (Enterococci) bacteria causing hemolysis, urinary tract infections and endocarditis.
Salmonella typhi	Gram negative (rod shape) bacteria associated with acute gastroenteritis and diarrhea, the causative agent for typhoid fever.
Mycobacterium tuberculosis	Bacteria of genus <i>bacillus</i> that can form spores. Tuberculosis (TB) is a disease that is spread from person to person through the air. TB usually affects the lungs, but it can also affect other parts of the body, such as the brain, the kidneys, or the spine. TB germs are put into the air when a person with TB disease of the lungs or throat coughs or sneezes.
FUNGI	
Aspergillus niger	Black mold, found in shower and dressing rooms. Environmental contaminant may also cause “Aspergillosis.”
Trichophyton mentagrophytes	Athlete’s foot fungus. Found in shower and dressing rooms.
VIRUSES	
Canine parvovirus	Causes diarrhea, vomiting, fever, loss of appetite in dogs. Obtained from food or water consumed by dogs.

Hepatitis B virus (HBV)	A hepadnavirus, a relatively new class of viruses. Partially double stranded DNA virus with three distinct morphologies. Occurs when blood or body fluids from an infected person enters the body of a person who is not immune. Hepatitis B is a serious disease caused by a virus that attacks the liver. The virus, which is called hepatitis B virus (HBV), can cause lifelong infection, cirrhosis (scarring) of the liver, liver cancer, liver failure, and death.
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Pathogenic Microorganism	Description
Hepatitis C virus (HCV)	A hepadnavirus, a relatively new class of viruses. Partially double stranded DNA virus with three distinct morphologies. Often referred to as Non-A, Non-B Hepatitis. A blood borne pathogen causes degeneration of the liver.
HIV-1 (AIDS Virus)	Lipophilic (enveloped) RNA retrovirus. Human Immunodeficiency Virus. Known to be the etiologic agent of Acquired Immunodeficiency Syndrome (AIDS).
Norwalk Virus	"Norwalk-like viruses" (NLVs) cause outbreaks of gastroenteritis and are spread frequently through contaminated food or water. Noroviruses are transmitted primarily through the fecal-oral route, either by consumption of fecally contaminated food or water or by direct person-to-person spread. Environmental and fomite contamination may also act as a source of infection.
Human Coronavirus	Severe acute respiratory syndrome (SARS) is a viral respiratory illness caused by a coronavirus, called SARS-associated coronavirus (SARS-CoV). SARS begins with a high fever (temperature greater than 100.4°F [$>38.0^{\circ}\text{C}$]). Other symptoms may include headache, an overall feeling of discomfort, and body aches. Some people also have mild respiratory symptoms at the outset. About 10 percent to 20 percent of patients have diarrhea. After 2 to 7 days, SARS patients may develop a dry cough. Most patients develop pneumonia.
Rabies Virus	A member of the Rhabdoviridae family or RNA viruses. These bullet shaped viruses are enveloped by a lipid bilayer. The causative agent for "rabies", an encephalitis that causes neuronal degeneration-- almost always fatal.
Poliovirus type 1	Poliovirus is a member of the enterovirus subgroup, family Picornaviridae. Enteroviruses are transient inhabitants of the gastrointestinal tract, and are stable at acid pH. Person-to-person spread of poliovirus via the fecal-oral route is the most important route of transmission,
Trichophyton mentagrophytes	Athlete's foot fungus. Found in shower and dressing rooms. Also the causative agent of Ring Worm, a fungi that is transmitted through non-socomal contact (e.g. activity mats, wrestling mats, etc)