

San-A-Safe™ provides a “beyond green” alternative to conventional cleaning programs. Beyond Green San-A-Safe™ is a recently-developed cleaning program for cleaning markets containing all-natural ingredients. Beyond Green San-A-Safe™ provides viable alternatives to traditional cleaning products while solving general issues across a broad spectrum of tasks. The highly effective cleaning properties of these products provide a multitude of safe and efficient solutions for cleaning tasks.

AOAC non-food sanitizer tests have demonstrated kill efficacy on: *Staphylococcus aureus*, *Salmonella chloeraesuis* and *Klebsiella pneumoniae*. Viral testing demonstrates kill efficacy on *Avian Influenza virus* and *Norwalk virus*. Results of these tests are summarized in the following tables.

### Sanitizer:

The product was challenged in triplicate for efficacy as a sanitizer on inanimate, non-food contact surfaces (EPA Guidelines DIS/TSS-10). An organic soil load of 5% blood serum was utilized. The product dilution with water was 32:1 or 4 ounces per gallon of water.

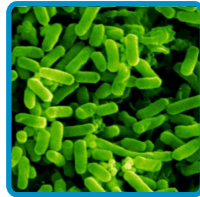
Bacteria	Kill Rate In 60 Seconds
MRSA NCIMB 50143	99.99%
P. aeruginosa	99.9%
S. aureus	99.9%
Listeria	99.9%
Salmonella	99.9%
E. coli 0157	99.9%



*Listeria* is a Gram-positive bacterium. Infection by *L. monocytogenes* causes the disease listeriosis. The manifestations of listeriosis include septicemia, meningitis and Pneumonia.



*Salmonella enterica* is a Gram-negative bacterium. Most cases of salmonellosis are caused by infected food. Investigations of vacuum cleaner bags have shown it can act as a reservoir of the bacterium.



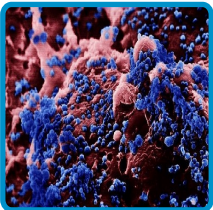
*Escherichia coli* is a leading cause of foodborne illness. *E.coli* is contracted by eating contaminated ground beef and leafy vegetables. Person-to-person contact is also a known mode of transmission.



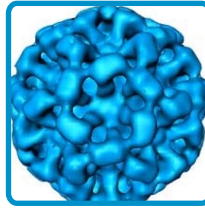
*Staphylococcus aureus*, a Gram-positive coccus, causes a range of illnesses from skin infections, such as pimples and boils, to life-threatening diseases, such as pneumonia, meningitis and endocarditis.

### Virucide:

The tests were designed to conform with EPA Guidelines DIS/TSS-7 and ASTM test method E 1053-91. An organic soil load of 5% blood serum was utilized. A cytotoxicity control was performed. The product was diluted with water at 32:1.



Avian flu means "flu from viruses adapted to birds." It refers to an illness caused by any of many different strains of flu viruses such that the strain in question has adapted to the host.



*Norovirus* is a virus that causes 50% of all gastroenteritis. Common names of the illness caused by Noroviruses are viral gastroenteritis, food poisoning, and stomach flu.

Virus	Log <sub>10</sub> Reduction
Avian Influenza virus	>6.00
Norwalk virus	3.99998

### Germicidal:

Results are presented in the Table. The challenge fungus was confirmed by wet mount identification and colony morphology to be consistent with *S. chartarum*. The carrier counts averaged  $5.2 \times 10^5$  CFU/carrier. The inoculum counts averaged  $6.5 \times 10^7$  CFU/mL. The pre-test inoculum counts averaged  $9.0 \times 10^7$  CFU/mL.

Challenge microorganism	Lot No. 31406D	Lot No. 31406E
<i>S. chartarum</i>	0/10	0/10



*Stachybotrys chartarum* is a common slimy, black mold. It may cause health problems from volatile gases or toxicity from inhalation or skin contact. Toxic effects include rashes, headache, nausea, muscle aches and pains, and fatigue.