

Clorox Commercial Solutions® Ultra Clorox® Germicidal Bleach



*The First and Only Product
Registered by the EPA to kill
C. diff spores!**



**Federal EPA and State Registered*

Clorox Commercial Solutions® Ultra Clorox® Germicidal Bleach

- *Clostridium difficile* (C. diff) , a potentially life-threatening bacterium, causes diarrhea and more serious intestinal conditions
- C. diff infections cost American Healthcare institutions \$17.6 - \$51.5MM each day*
- Clorox® Ultra Germicidal Bleach has recently earned a C. diff Spore Kill Claim from the EPA, and is registered for use in all 50 states
- Clorox® Ultra Germicidal Bleach is currently the only disinfectant on the market with a C. diff Spore Kill Claim



**Association for Professionals in Infection Control,
"Intestinal Infection Afflicts 13 of 1,000 Hospital Patients,"
November 11, 2008*

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C. diff Spore – 6 log kill, 10 minute dwell time

Hospital use disinfectant

Registered for use in all 50 states

EPA registration # 67619-8



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Clostridium Difficile (C. diff)

What is it?

- *Clostridium difficile* (C. diff) is a spore-forming gram positive bacteria that is present in the intestines of about 5% of healthy people.
- All people have both 'good' and 'bad' types of bacteria in their bodies – C. diff is a 'bad' bacteria
- If good bacteria are killed off (by taking antibiotics for example), then C. diff if it is present can overpopulate inside the intestine and/or colon
- When this occurs, a person may get one of a number of illnesses caused by *Clostridium difficile*, including colitis
- Toxins are created which attack the intestinal wall and, left untreated, may cause ulcerations
- Symptoms include diarrhea and cramping, and can lead to weakness, dehydration, fever, nausea, vomiting and – in rare cases – even death



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Clostridium Difficile (C. diff)

Why should you care?

- C. diff bacterium can cause potentially life-threatening disease and is the most common cause of health care associated diarrhea in developed countries
- C. diff associated disease has been estimated to cost an additional \$3k - \$7K per patient and require a stay of 3 – 21 extra days in the hospital*
- A conservative estimate of the cost of C. diff in the US exceeds \$1.1B/year!**
- The incidence of C. diff associated disease (CDAD) may be reduced by proper environmental hygiene



*Wilcox et al. 1996. *J Hosp Infect* 34 (1): 23 - 30

**Kyne et al. 2002. *Clin Infect Dis* 34 (3): 346-53

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C. diff Spores vs. C. diff Vegetative – what is the difference?

Form	Characteristics	Modes of Transmission	Incubation Periods/ Special Concerns
Spore	Dormant, highly resistant to most disinfectants	Transmission by touch of items or surfaces contaminated. Infection through ingestion of spores	Can live up to 5 months on hard surfaces, up to 2 years in dirt or open air
Vegetative	Actively growing cells, susceptible to and easily killed by heat, drying, and many disinfectants	Transmission by touch of items or surfaces contaminated. Infection through ingestion of spores	Can only live for a few hours on surfaces due to inability to tolerate oxygen. Can convert to spore form if exposed to a hostile environment

Claim vs. the spore state is critical

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Clostridium Difficile (C. diff)

Why do EPA registrations matter?

- Obtaining an EPA registration means that the EPA has reviewed and accepted an in-depth set of studies for a given pesticide
- Studies include several components of a formula to include:
 - Active type
 - Product efficacy
 - Toxicity
 - Product stability
 - Physical/chemical characteristics
- Studies are performed under strict guidelines from Good Laboratory Practices (GLP) to ensure data integrity
- Studies include specific micro efficacy data under particular test conditions
- Products without registration CANNOT make or imply claims



The first and only product registered by the EPA to kill C. diff spores!

Selling Materials: Segment Sell Sheet

The first and only product registered by the EPA to kill *C. diff* spores.*

(Not a good day to be a spore.)



Ultra Clorox® Germicidal Bleach is the only product with an EPA-registered *C. diff* spore kill claim.*

For more information, e-mail healthcare@clorox.com or visit cloroxprofessional.com/cdiff



* Federal EPA and State registered. Use as directed on hard, nonporous surfaces.
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Effective against:	KILL TIMES
<i>Acinetobacter baumannii</i>	2 min
Adenovirus type 2	5 min
<i>Aspergillus niger</i>	2 min
Avian Influenza A	5 min
<i>Candida albicans</i>	2 min
Canine parvovirus	10 min
<i>Clostridium difficile</i>	2 min
Cytomegalovirus	5 min
Human Coronavirus	5 min
<i>Enterococcus faecalis</i> , vancomycin resistant (VRE)	2 min
<i>Escherichia coli</i> with ESBL	X min
<i>Escherichia coli</i> O157:H7	2 min
Feline panleukopenia virus	10 min
Human Hepatitis A virus	2 min
Human Hepatitis B virus	5 min
Human Hepatitis C virus	5 min
Herpes simplex virus type 2	5 min
HIV type 1	2 min
Influenza A virus	5 min
<i>Legionella pneumophila</i>	2 min
<i>Mycobacterium bovis</i> (Tuberculosis)	5 min
Norovirus (as Feline Calicivirus)	5 min
Parainfluenza type 1	5 min
<i>Pseudomonas aeruginosa</i>	2 min
Rhinovirus type 37	5 min
Rotavirus	2 min
Respiratory syncytial virus (RSV)	5 min
Rubella virus	5 min
<i>Salmonella enterica</i>	2 min
<i>Shigella dysenteriae</i>	2 min
<i>Staphylococcus aureus</i>	2 min
<i>Staph. aureus</i> , Community Acquired methicillin resistant (CA-MRSA)	X min
<i>Staph. aureus</i> , methicillin resistant (MRSA)	2 min
<i>Streptococcus pneumoniae</i>	2 min
<i>Streptococcus pyogenes</i>	2 min
<i>Trichophyton mentagrophytes</i>	2 min
Variella-zoster virus	5 min

37 Kill Claims



The world's only product with an EPA registered *C. diff* spore kill claim.

Registered by the EPA and in all 50 states

Ultra Clorox® Germicidal Bleach complies with EPA standards for product efficacy, usage safety, shelf life, label strength, processing and raw materials. Add confidence to your disinfecting regimen by ensuring your bleach adheres to these rigorous standards.

More concentrated

At 6.15% sodium hypochlorite, Ultra Clorox® Germicidal Bleach is more concentrated than many bleach products on the market. Using the Centers for Disease Control and Prevention-recommended dilution ratio of 1:10, Ultra Clorox® Germicidal Bleach exceeds the 5,000 ppm required to kill many of the pathogens of most concern to hospitals.

Safe to use on most nonporous surfaces

Use Ultra Clorox® Germicidal Bleach with confidence to clean and disinfect large surfaces such as exam tables, floors and hallways, as well as bedrails, tables, equipment surfaces and mobile devices such as IV stands, BP monitors, carts and glucometers.*

Effective cleaning

Ultra Clorox® Germicidal Bleach is excellent for controlling mold and mildew in bathrooms, germ-prone surfaces and laboratories. Our product complies with OSHA guidelines for airborne pathogens and meets FDA guidelines for sanitizing food contact surfaces.

Environmental sustainability

Clorox does not use the mercury cell process in the manufacture of sodium hydroxide, which eliminates a source of mercury contaminants found in some bleach products. After use, 95 percent to 98 percent of bleach rapidly breaks down back into salt and water. Any residuals continue to convert to salt through natural degradation.

Contact your Clorox representative or visit www.cloroxprofessional.com to learn more about how Clorox Commercial Solutions® products can help reduce the spread of infection in your facility.



PRODUCT INFORMATION
Case UPC 02490 6/96 oz.
Case UPC 02489 3/182 oz.

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Sell Sheets with Product Benefits and Kill Claims Available on Sales Web and from IMT

Marketing Elements: Print Advertising

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Ads will run in Industry Journals May/June