

# ACI PRODUCT FACT SHEET

## HARD SURFACE HYGIENE

### Disinfecting and Sanitizing Products

Products formulated to kill germs on surfaces at home, at work and at school.

HARD SURFACE HYGIENE

#### ADVICE FROM THE EXPERTS!

Clean homes. Clean workplaces. Clean schools. We're all drawn to the clean we can "see." But we also know that just because something *looks* clean, doesn't mean it really *is* clean.

For decades, the American Cleaning Institute in the United States and the Canadian Consumer Specialty Products Association in Canada have been leaders in educating the public on the role of disinfecting and sanitizing in preventing the spread of illness-causing germs. You can't see germs — like *Salmonella*, *E. coli*, or Influenza. But "pathogenic," or disease-causing, germs can be alive and thriving on surfaces all around you — at home, at work and at school. And as we continue to hear words like "pandemic" more frequently in the news — the idea of disinfecting and sanitizing the surfaces we touch becomes even more top-of-mind.

#### American Cleaning Institute<sup>SM</sup>

Supporting Public Health for over 80 Years

The soap and detergent industry cares about safe and proper use of its products. In fact, the American Cleaning Institute (ACI) has been educating consumers on topics such as hand and home hygiene for over three quarters of a century.

This Fact Sheet explains the purposes and proper usage of disinfecting and sanitizing products. When used properly, these products play an important role in helping to ensure that our homes are clean *and* our families are healthy.

#### WHERE THE GERMS ARE

##### In the Kitchen

You've just finished cutting up your gourmet chicken, and it's ready for herbs and spices worthy of your most important dinner guests. But as you've been working away, the discarded packaging — and the various kitchen tools you've used — have been dripping raw chicken juice all over your counter. These germs have the potential of being the dinner guests who "just won't leave"! In fact, once they've settled on your kitchen countertops, they'll stay to mingle with your salad and whatever else you're preparing there. Ready to show them the door?

##### In the Bathroom

Bathroom germs: no one wants to even think about them. But in fact, studies show bathrooms top kitchens as the cleanest room in a house.<sup>1</sup> Surprised? Maybe not. Moms with small children say they clean the family bathroom just about everyday, for reasons they don't necessarily even want to discuss. Which room tops *your* "Most Cleaned List"?

##### At the Office

Face it: your desk is a bacteria cafeteria. You work at it, eat at it, and may even feel like you live at it — but if you're like most people, cleaning it is likely the last thing on your mind. But once germs make their way into an office, they can spread like the latest merger rumor. The "bad-guy" lineup starts with germs on telephones, followed by those inhabiting desks, water fountain handles, microwave door handles and computer keyboards. What germs are living on *your* mouse?

##### In the Classroom

Ask any teacher and they'll tell you: when one child comes to school sick, illness can spread through the classroom like wildfire. Germs live on the surfaces the kids touch everyday: desktops, computer mice, the pencil sharpener, paper towel dispenser handles, faucet handles on classroom sinks and the doorknob to the classroom. Chances are that more than learning and new ideas are being shared at school!

#### What about Public Places?

When you're not at home, you don't have control over how often — or how well — surfaces have been cleaned. So try to avoid touching surfaces that could harbor large numbers of germs whenever possible . . . and take extra care in practicing diligent hand cleaning behaviors.

**Hand washing is the first step to staying healthy, but there is more that can be done. Germs are spread by touching surfaces, so while you can't — or shouldn't — try to control every germ in your environment, it makes good sense to defend against the germs that can make you sick.**

<sup>1</sup> P. Rusin, P. Orosz-Coughlin and C. Gerba. 1998. Reduction of fecal coliform, coliform and heterotrophic plate count bacteria in the household kitchen and bathroom by disinfection with hypochlorite cleaners. *J. Applied Microbiology*. 85:819-828.



## PRODUCTS

Disinfectants and sanitizers come in many forms, and each has its own benefits. Read the label to see if the product you're choosing is labeled as a disinfectant and/or sanitizer, and select the one that best suits your needs. Disinfectants and sanitizers are designed to kill bacteria, viruses and/or fungi on surfaces. For proven results and range of effectiveness, look for a product that has an EPA registration number in the U.S., and the word "disinfectant" or "sanitizer" on the label in Canada.

### Product forms include:

- Wipes
- Liquids
- Sprays
- Aerosols
- Gels
- Foams
- Granules



Remember to **read the label**. In addition to disinfecting/sanitizing information, product labels may also contain information about ingredients, proper use, safety, disposal and other helpful advice, such as how to contact the product manufacturer with questions.

## INGREDIENTS

For surface cleaners, cleaner/disinfectants and cleaner/sanitizers, active ingredients are listed on product packaging. The following ingredients are often used in many home hygiene products; not all products contain all ingredients.

- **Cleaning Agents/Surfactants:** Lift dirt and soil and help remove germs from surfaces
- **Buffering agents:** Stabilize the various ingredients in the formulas
- **Fragrances:** Give consumers a choice of pleasing scents
- **Disinfecting and Sanitizing Active Ingredients:** Kill bacteria, viruses and/or fungi that cause odors, mold and/or illness. Some of the more frequently-used active ingredients are:
  - Sodium hypochlorite
  - Ethanol
  - Pine oil
  - Hydrogen peroxide
  - Citric acid
  - Quats (quaternary ammonium compounds)

## SAFETY FIRST

- Always read and follow instructions on all products before using.
- Avoid contact with eyes. In case of eye contact, flush with water.
- Keep products out of children's reach during use and storage.
- Read and follow instructions on all products before using.
- Keep products in their original, labeled containers.
- Do not combine hard surface cleaners with other products.
- Hard surface cleaners and disinfectants are intended for external use only. If swallowed, get medical help, call the U.S. Poison Control Center's national toll-free hotline at **1-800-222-1222**, or call the number listed on the product label. To locate a provincial Poison Control Center in Canada, visit [www.healthycleaning101.org/english/safety.html](http://www.healthycleaning101.org/english/safety.html).

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## DIRECTIONS FOR USE

Always read the label first and follow the manufacturer's instructions.

- For products that need to be diluted with water before use, always use the recommended proportions in order to achieve concentrations that will disinfect.
- Work in a ventilated room if suggested on the label.
- Do not mix cleaning products together. In many cases, dangerous fumes can form.
- Always keep cleaning products out of reach of children.
- Some combination products clean and disinfect/sanitize at the same time, while other products require that surfaces be pre-cleaned, and that the disinfectant or sanitizer remain on the surface for a prescribed amount of time, then rinsed or air dried. That's why it's important to always read the label before using the product: so that you use it correctly in order to get the expected results.

Keep in mind that staying healthy doesn't require a degree in microbiology; it just takes a bit of common sense and knowing where to disinfect. In addition to the obvious places like floors, toilets, showers, sinks and countertops, focus on surfaces that are germ hotspots, such as:

- Kitchen sink drain areas
- Kitchen faucet handles
- Refrigerator handles
- Light switches
- Doorknobs
- Remote controls
- Computer mice
- Bathroom faucets
- Toys
- Changing tables
- Phones and cell phones
- Computer keyboards

When choosing which product type is best for which surface, read the label and use common sense. For example — don't use sprays on electrical equipment such as cell phones, remote controls, light switches or computer keyboards . . . and read the label for proper usage on children's toys.

## DISPOSAL

- Use all of the product. If the product has been sitting in your childproof cleaning product storage area for awhile, call the manufacturer to see if the product is still effective.
- Always check the label for product disposal instructions, or contact the manufacturer.
- When your container is empty, check your local recycling regulations to see if it's recyclable in your community.

## FOR MORE INFORMATION

Looking for additional information? Check out these online resources:

- Consumer Product Safety Commission (CPSC): [www.cpsc.gov](http://www.cpsc.gov)
- Consumer Specialty Products Association (CSPA): [www.cspa.org](http://www.cspa.org)
- Alliance for Consumer Education: [www.consumered.org](http://www.consumered.org)
- Manufacturers' websites: [www.cleaninginstitute.org/about/members/](http://www.cleaninginstitute.org/about/members/)
- Center for Food Safety and Applied Nutrition, Food and Drug Administration: [www.cfsan.fda.gov](http://www.cfsan.fda.gov)
- Food Safety and Inspection Service, U.S. Department of Agriculture: [www.fsis.usda.gov](http://www.fsis.usda.gov)
- Gateway to Government Food Safety Information: [www.foodsafety.gov](http://www.foodsafety.gov)
- The Partnership for Food Safety Education: [www.fightbac.org](http://www.fightbac.org)

### *A Special Thank You to Our Reviewers and Contributors*

The American Cleaning Institute developed this Product Fact Sheet in partnership with hard surface cleaning product industry experts to help consumers achieve a better understanding of safe and effective use of hard surface disinfecting and sanitizing products.

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for better living

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Got a question about this topic?  
[info@cleaninginstitute.org](mailto:info@cleaninginstitute.org)

## Disinfecting and Sanitizing: Frequently Asked Questions

**Q: What is the difference between a disinfectant, an antimicrobial, and a sanitizing product?**

**A:** Disinfectants and antimicrobials destroy pathogenic microorganisms. These two terms are used interchangeably. Sanitizers reduce the number of microorganisms to a safe level by killing them; typically, sanitizers kill 99.9% of these germs.

Any product that claims to kill bacteria or viruses must be registered with the Environmental Protection Agency, so look for products that have an EPA registration number on the product label. For Canadian products, look for the Drug Identification Number (DIN) or the Health Canada registration number.

**Q: How do I know which product is best for my surface?**

**A:** The best course of action is to read the product label carefully and **purchase and use products as intended**. Also, use common sense when considering the type of surface on which you'll use the product — for example, you wouldn't use spray products on electronics, as they could cause damage to the component or cause an electrical "short."

**Q: When a surface looks clean, does that mean it is probably germ-free, too?**

**A:** No. According to the Centers for Disease Control and Prevention, disinfecting and cleaning are not the same. The tricky thing about germs is that you can't see them. And while soap and hot water remove some germs from surfaces when you clean, they cannot kill all germs — in fact, they may even spread them around. To ensure that a surface is germ-free, use a disinfectant or sanitizing product. Be sure to follow the label directions, as many products need to "stand" on a surface for a period of time in order to kill germs. For more on germ prevention, visit the CDC's Ounce of Prevention website: [www.cdc.gov/ounceofprevention](http://www.cdc.gov/ounceofprevention).

**Q: Are cleaning products safe?**

**A:** A commitment to safety is a top priority from the time a company begins working on a new product and continues as long as the product is in the marketplace. Companies evaluate the safety of existing cleaning products by talking with consumers, reviewing scientific developments, and monitoring product use data that may affect the safety assessment process. Safety also lies in the hands of the consumer. In the real-world use of cleaning products, problems generally arise when they are improperly handled, used or stored. Consumers should read the product label, use cleaning products only as directed and store products properly and securely.

**Q: What's the difference in the words warning, caution, and danger on the product label?**

**A:** CAUTION or WARNING are the most commonly used "signal words" for cleaning products. These two terms are interchangeable for household cleaning products, and mean that the product is not likely to produce permanent damage as a result of exposure. However, keep in mind that appropriate first aid should always be given in case of exposure. As always, read the label for first aid information.

DANGER indicates that accidental exposure to the *undiluted* product could produce permanent tissue damage; swallowing the *undiluted* product could cause damage to the mouth, throat and stomach; or the material could ignite if exposed to an open flame, heat or spark.

Remember the keys to safe and effective product use: always **read the product label** before using, and **use the product only as intended**.

**Q: Where can I find out more about surface cleaning, disinfectants and sanitizers?**

**A:** To learn about disinfectants and sanitizers, visit ACI's website, [www.cleaninginstitute.org](http://www.cleaninginstitute.org); product manufacturers' websites at [www.cleaninginstitute.org/about/members/](http://www.cleaninginstitute.org/about/members/); the U.S. Consumer Product Safety Commission at [www.cpsc.gov](http://www.cpsc.gov); the Consumer Specialty Products Association at [www.cspa.org](http://www.cspa.org); or the Alliance for Consumer Education at [www.consumered.org](http://www.consumered.org). To learn more about surface cleaning, visit FDA at [www.cfsan.fda.gov](http://www.cfsan.fda.gov); USDA at [www.fsis.usda.gov](http://www.fsis.usda.gov); [www.foodsafety.gov](http://www.foodsafety.gov); or the Partnership for Food Safety Education at [www.fightbac.org](http://www.fightbac.org).

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