

# HOW TO CHOOSE DISINFECTANT PRODUCTS

Today there are literally thousands of disinfectant and antimicrobial products on the market, all making bold claims about things like efficacy, safety, toxicity, efficiency and more. It's great to have options, but how do you choose a product that delivers the antimicrobial protection you need — while also choosing a gentle, non-irritating product that's better for the user, the environment, and your assets?

## LOOK TO THE LABEL

Every EPA-approved disinfectant product is required to have a label that covers critical information about:

- How to use the product safely and effectively.
- How to store the product safely.
- First aid instructions.

Reading and understanding the label will tell you everything you need to know to make smarter, safer choices.

## EFFICACY

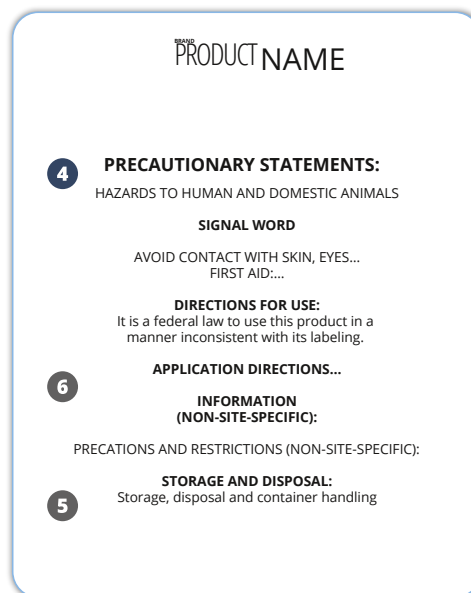
How to choose a product that is effective at inactivating the necessary microorganisms

### EPA Registration Number

#### WHAT TO LOOK FOR:

EPA registration number listed on label.

All disinfectant products should have an EPA registration number. This tells you that the product, as well as all claims made on the label, have been reviewed and validated by the EPA.



### Antimicrobial Claims

#### WHAT TO LOOK FOR:

Broad-spectrum disinfectant.

This tells you exactly what germs the product has been validated to kill. Look for a broad-spectrum disinfectant with bactericidal, virucidal, fungicidal and, if you are in healthcare, tuberculocidal claims. Also look for a product that meets EPA List N criteria for use against SARS-CoV-2, the virus that causes COVID-19.

## 1 Appropriate Surfaces & Application Methods

#### WHAT TO LOOK FOR:

Approved for use on hard, non-porous surfaces.

Make sure the product is approved for use on the surfaces in your facility. In most cases, this means a product designed for use on hard, non-porous surfaces. Also pay attention to the application method(s). Following the approved method(s) is the only way to ensure effective disinfection.

## SAFETY

Choosing a product that reduces health and safety risks in your facility.

### 2 Active Ingredients

#### WHAT TO LOOK FOR:

Disinfectants are required to list the active ingredients — the chemicals that actually kill germs. Look for products that have active ingredients with low toxicity levels like citric acid, or thymol.

### 3 Signal Words<sup>1</sup>

#### WHAT TO LOOK FOR:

Look for products that require no signal words or Caution. Signal words will tell you quickly the toxicity of the product and active ingredients. Signal words are determined by the most severe toxicity category assigned by any of the five acute toxicity studies (acute oral, acute dermal, acute inhalation, primary eye irritation, primary skin irritation). The signal words and associated toxicity categories are as follows:

- 1.Toxicity Category I: DANGER3.Toxicity Category III: CAUTION
- 2.Toxicity Category II: WARNING4.Toxicity Category IV: None Required

### 4 Precautionary Statements & First Aid Information

#### WHAT TO LOOK FOR:

Precautionary statements will tell you if the product is an eye irritant, a skin irritant, harmful if swallowed, has contents under pressure, or needs to be used in a well-ventilated area. They will also make recommendations on personal protective gear (PPE) that should be worn and provide basic first aid information related to the specific hazards. Some of the least-hazardous disinfectant products require neither precautionary statements nor PPE use. These non-hazardous products are not required to include first aid information, although some may still choose to do so.



#### EPA Safer Choice/EPA Design for the Environment Disinfectant Logo

Design for the Environment (DfE) certification for disinfectants is part of the EPA's Safer Choice Program that helps consumers identify products formulated with safer chemical ingredients without sacrificing quality or performance. You can be assured that products carrying the DfE logo meet stringent criteria to protect your family, your workplace, and the environment.

### Other Claims

#### WHAT TO LOOK FOR:

Non-aerosol, low-fragrance; don't be fooled by unregulated claims. Many product labels include claims such as "green," "natural," or "environmentally friendly." But these terms have no legal meaning and are not regulated or validated by the EPA. You should look for non-aerosol and low-fragrance products as they can be less irritating and safer for the environment.

<sup>1</sup>[www.epa.gov/pesticide-labels/label-review-training-module-2-parts-label-page-2](https://www.epa.gov/pesticide-labels/label-review-training-module-2-parts-label-page-2)

## EFFICIENCY

Choosing a product that allows efficient, cost-effective cleaning and disinfection.

### 5 Disinfection Contact Time

#### WHAT TO LOOK FOR:

Products can have multiple contact times for different organisms. Use the longest contact time to ensure inactivation of all organisms of concern.

The disinfection contact time indicates how long the product must remain wet on surfaces to effectively kill viruses and bacteria. Make sure you're looking at the disinfection contact time and not the sanitization contact time, which is generally significantly lower, but does not ensure the same level of antimicrobial kill.

### 6 Instructions for Use

#### WHAT TO LOOK FOR:

One-step cleaning & disinfection.

Many products require an initial pre-clean step before disinfection (i.e., "Use a wipe to remove soil; use additional wipes to thoroughly wet surface and ensure contact time."). Some products also require a post-rinse step (i.e., "A thorough rinse is required after use."). Look for a one-step disinfectant that has been tested in the presence of soil and does not leave harmful residues. Note that pre-cleaning may still be needed for heavily soiled surfaces.

#### WANT ADDITIONAL RESOURCES?

EPA provides two simple ways to help organizations and individuals find safer institutional cleaning products:

- U.S. EPA Safer Choice Chemicals List
- U.S. EPA Design for the Environment List (<https://www.epa.gov/pesticide-labels/dfe-certified-disinfectants>)