

Scratching the Surface: What's in Your Disinfectant?

Quaternary Ammonium Compounds (Quats) are common active ingredients in surface disinfectants. Before you choose a surface disinfection product, it's important to know what you're getting.

To see if you're using quats in your facility, check the ingredient list on your surface disinfectants. Ingredient names that end with "ammonium chloride" mean that product is a quat-based solution.¹



The EPA lists many quat concentrates as category 1 (highly toxic and severely irritating), due to their harsh chemical profile. They can also cause:

- Skin/eye irritation
- Eye damage
- Asthma irritation
- Contact dermatitis¹



Many quats have a 5-10-minute disinfection time. This means the surface must stay wet and can't be wiped until that time. Other variables that can adversely affect effectiveness are:

- Heavy soils on surfaces
- Water pH and temperature²



Quats can bind to towels and rags, meaning they're no longer in the solution. This affects the effectiveness of the solution and can leave behind the germs and allergens you're trying to remove from surfaces.

- Some quats are pre-diluted and ready to use, but others need to be diluted
- Concentrations range from 200-400ppm, but 200ppm is ideal for food-contact surfaces

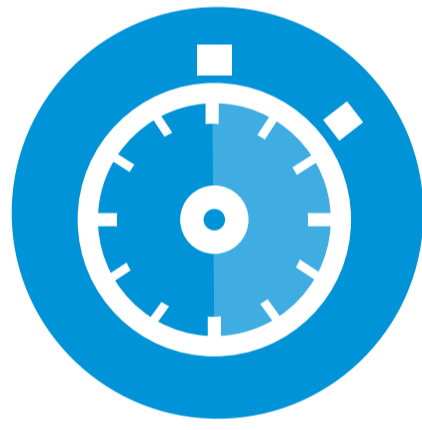
Did You Know?

Although they're commonly used and known to be effective, quat-based surface solutions can present you with more trade-offs than an alcohol-based product.

Eliminate Germs – and Compromises – with Alcohol-Based Disinfectants

Disinfectants that use alcohol as the active ingredient — like PURELL® Surface Sanitizers and Disinfectants — are proven effective without harsh chemicals.

These innovative formulations maximize the power of alcohol, so they're approved for food-contact surfaces, with no rinsing required.



Fast and Effective: These one-step cleaners and disinfectants eliminates cold & flu, strep, human coronavirus,* and a broad spectrum of other pathogens quickly and effectively – many in just 30 seconds.



Worry Free: The lowest allowable toxicity rating for EPA Design for the Environment (DfE) certified products means there's no need to rinse or wash hands after using. Plus, with no harsh fumes, allergens, or irritants, you can use it throughout your school.



Multi-Surface Performance: Proven on most hard and soft surfaces, including desks, upholstered furniture, toys and hands-on learning tools, health and fitness equipment, and more.

Sustainability Spotlight: Alcohol vs. Quats



VS



Unlike quats, which can persist in the environment even after use, PURELL Surface Sanitizers and Disinfectants are readily biodegradable and do not leave harmful, persistent chemicals on surfaces or in the environment.

1. https://med.nyu.edu/pophealth/sites/default/files/pophealth/QACs%20Info%20for%20Physicians_18.pdf
2. <https://www.foodsafetymagazine.com/magazine-archive1/augustseptember-2011/sanitizers-and-disinfectants-the-chemicals-of-prevention/>

Additional Sources:
Ruta la, Weber. Am J Infect Control 2013;41:536-541 AHRQ Publication No. 15-EHC020-EF August 2015
http://www3.epa.gov/pesticides/chem_search/pppls/084368-00001-20150309.pdf

* Coronavirus Disease 2019 (COVID-19) is caused by SARS-CoV-2. PURELL® Surface Sanitizer and Disinfectant Sprays kill similar viruses and therefore can be used against SARS-CoV-2 when used in accordance with the directions for use against Hepatitis A Virus on hard, non-porous surfaces. Refer to the CDC website at <https://www.cdc.gov/coronavirus/index.html> for additional information.