

Harm from Disinfectants During COVID-19

Protect yourself and family by avoiding disinfectants containing respiratory-irritating toxic substances. Instead, choose safer effective disinfectants.

Many disinfectants used to disinfect against COVID-19 that meet EPA’s criteria contain the active ingredient Quaternary ammonium. **Quaternary ammonium compounds (QAC)** are registered with the EPA as pesticides and increasingly are being found to cause serious health effects. Mount Sinai Selikoff Centers for Occupational Health report on [Quaternary Ammonium Compounds for health professionals](#) cautions QAC exposure from cleaning products for **triggering asthma symptoms even in people with no prior asthma history**, among other serious harmful impacts.

Chlorine-based disinfectants also cause respiratory irritation and illness. (see sidebar) [Nurses’ regular use of disinfectants is associated with developing COPD, 24-32% higher.](#)

AVOID and replace disinfectants and cleaners containing these chemicals:

- ✗ Quaternary ammonium compounds
Label does not specify a substance is a QAC but often ends in “ammonium chloride”
Most common QAC in disinfectants are the **Benzalkonium chlorides**.
- ✗ Chlorine compounds / Bleach
(sodium hypochlorite, hypochlorous acid, sodium chlorite & sodium chloride)
- ✗ Sodium Dichloro-S-Triazinetrione

- ✗ Ammonium Carbonate
- ✗ Ammonium Bicarbonate
- ✗ Peroxyacetic acid (peracetic acid)
- ✗ Glutaraldehyde
- ✗ Glycolic acid
- ✗ Hydrochloric acid
- ✗ Octanoic acid

WARNING: Do not mix products. Mixing bleach with vinegar, ammonia or alcohol is very toxic. Clean surface dirt and rinse before disinfecting.

CHOOSE SAFER disinfectant ingredients approved by CDC and EPA N List:

- ✓ Hydrogen peroxide
- ✓ Isopropyl alcohol / isopropanol
- ✓ Ethanol
- ✓ Thymol
- ✓ L-lactic acid
- ✓ Citric Acid

Contact times vary, **read label.**

Finding Safer Disinfectant Products Approved for COVID-19

SEARCH the EPA List N database to find safer disinfectant products:
[Use this link](https://bit.ly/2wQMIG5) (https://bit.ly/2wQMIG5) to access database, scroll down page to Search Table of List N products by Active Ingredient, input active ingredient from SAFER list. Eliminate product results with active ingredients that are listed in AVOID list (above).

Or download these PDF files of List N products with safer active ingredients:

- ✓ Isopropyl/isopropanol - Klercide 70/30 IPA, EcoLab Inc. or other 70/30
- ✓ Hydrogen peroxide – [Download the product list](#)
- ✓ Ethanol product – [Download the product list](#)
- ✓ Thymol – [Download the product list](#)
- ✓ L-lactic acid – [Download the product list](#)
- ✓ Citric Acid – [Download the product list](#)

When using downloaded PDF lists, only choose products with **YELLOW** highlight on Active Ingredients, **DO NOT USE PRODUCTS** with **AVOID** active ingredients.

Choose Safer Disinfectant Products

- #### Hydrogen peroxide
- Angel
 - Vaprox Hydrogen Peroxide Sterilant
 - Proxi Home General Disinfectant Cleaner Spray
 - B-Cap 35 Antimicrobial Agent
 - Peroxy HDOX
 - Binary Ionization Technology Solution
 - Oxy-1 Wipes
 - Accell Disinfectant Cleaner
 - Peroxide Multi Surface Cleaner and Disinfectant
 - Peroxide Disinfectant and Glass Cleaner RTU
 - Clorox Commercial Solutions Hydrogen Peroxide Cleaner Disinfectant Wipes
 - Clorox Commercial Solutions Clorox Disinfecting Biostain & Odor Remover
 - Oxyteam Disinfectant Cleaner
 - Oxivir Wipes
 - Sani-HyPerCide Germicidal Spray
 - HaloSpray
 - Phato 1:64 Disinfectant Cleaner
 - Suretouch
 - Accel 5 RTU
- #### L-lactic Acid
- Windex Disinfectant Cleaner
 - Fangio
 - Gurney
 - Sani-Cide EX3 RTU
- #### Citric Acid
- Cleancide
 - SBT 2 to 1 Concentrate
 - Tristel Duo for Surfaces
 - Lysol Bathroom Cleaner
 - Cleancide Wipes
 - Axe® 30
 - Sdc3a
 - Comet Disinfecting Bathroom Cleaner
- #### Ethanol
- MiterSaw
 - Saginaw
 - Purcell Professional Surface Disinfectant Wipes
 - Urthpro
 - Lysol Neutra Air 2 in 1
- #### Thymol
- SBT 2 to 1 Concentrate
 - Benefect Botanical Daily Cleaner Disinfectant Spray
 - Benefect Botanical Daily Cleaner Disinfectant Towelette
 - Thymox Disinfectant Spray
 - Ready to Use Thymol