

**Safer Disinfectants Protocol**  
San Francisco Department of the Environment  
2/24/2021

## **Background**

In light of the COVID-19 pandemic, there is an urgent need to identify disinfectants with reduced human health and environmental impacts. No existing ecolabels or certifications apply to disinfectant products in the US, with the exception of Design for the Environment (DfE) program. However, the DfE listings are currently very limited.

In addition to screening for safer active ingredients (see #2 below), SFE saw a need to conduct its own screening of other disinfectant ingredients. The simple screening described below is not as rigorous as the DfE screenings, but we hope it will provide timely information to our citizens seeking safer products.

## **Protocol**

1. Begin with US EPA N-List disinfectants, which are approved for use against the SARS-cov-2 virus.
2. Select products containing only the following as active ingredients. Unless otherwise noted, these ingredients were chosen based on the results of the department's 2014 report, "[Safer Products and Practices for Disinfecting and Sanitizing Surfaces.](#)"
  - a. Hydrogen peroxide
  - b. Citric acid
  - c. Lactic acid
  - d. Octanoic (caprylic) acid
  - e. Ethanol (identified as safer ingredient by DfE)
  - f. Isopropanol (identified as safer ingredient by DfE)
  - g. Thymol (SFE evaluated independently; selected for inclusion based on lower hazard profile and limited availability of safer alternatives on the consumer market)
3. Review other disinfectant ingredients against the Safer Choice "Safer Chemical Ingredients List." Products containing only ingredients designated as "green circle" (verified low concern) or "green half circle" (expected low concern) are designated as SFE safer products, if ingredient list is complete.
4. Products containing "yellow triangle" chemicals (some concern), or chemicals not listed on SCIL, may be designated as SFE safer products only if their hazard profile on the PHAROS project tool shows no "high" or "very high" hazards on its authoritative lists for Group I Human Hazard Green Screen categories or the Respiratory Sensitization category.
5. Products containing SCIL list "grey square" (high concern) ingredients are not acceptable as SFE safer products.

6. Products sold by companies not compliant with SB258 (California's cleaning product ingredients disclosure law) are not acceptable as SFE safer products.
7. Products intended solely for misting or fogging of facilities, or for highly specialized uses such as bioterrorism remediation or food processing facilities, or products labelled with the "Danger" signal word by the US EPA, will not be listed.