

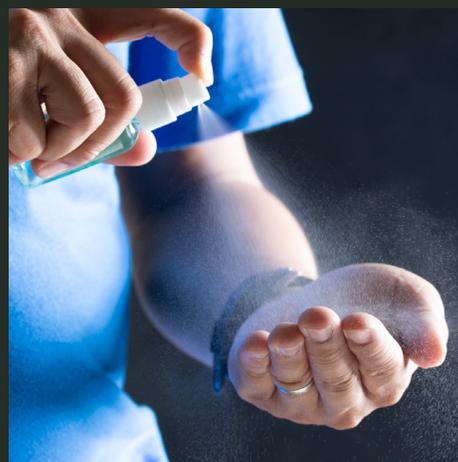
FACTsheet

Safer Disinfection

Keeping Schools and Offices Safe from Coronavirus and Hazardous Disinfectants

Summary

Thorough cleaning and safe and effective disinfectants are critical as schools and offices reopen. U.S. EPA's Design for the Environment program identifies effective disinfectants that meet strict and comprehensive health and safety criteria. By choosing these products facility managers can provide a healthy environment for students and staff.



As schools and offices reopen following the coronavirus-related transition to remote working and learning, questions about disinfectants come up frequently. By using disinfectants carefully and choosing safer products, it is possible to both reduce virus exposure and reduce exposure to hazardous chemicals.

Guidance from the U.S. Centers for Disease Control and Prevention (CDC)

As the pandemic continues, the CDC collects data, monitors research, and provides guidance about a variety of topics related to the coronavirus. Here are recommendations from recent CDC guidance that the Center for Environmental Health has found to be critically important:¹

1. Coronaviruses on typical surfaces die in a matter of hours or days. Sunlight speeds up this process. This means that outdoor areas (except for frequently touched surfaces) generally don't require use of disinfectants.
2. Surfaces and objects that are infrequently touched need cleaning with soap and water, but don't need disinfectants.
3. Surfaces should first be cleaned thoroughly with soap and water before disinfecting so that the disinfectants can be most effective. In addition, follow the directions on the label which typically recommend a specific amount of time you need to keep the surface visibly wet with the disinfectant to give the disinfectant time to kill viruses.
4. Because disinfectants are in short supply, users should keep disinfectants available to everyone who needs them by only using them when necessary and following directions carefully.



Are Disinfectants Hazardous?

The simple answer to this question is "Yes."

Disinfectants (sometimes called antimicrobials) are one of the 20 product categories most often involved in poisoning incidents, according to the American Association of Poison Control Centers² about disinfectants surged during the coronavirus pandemic.³

Specific hazards of some disinfectants recommended for use against the coronavirus (US EPA's List N) are also well documented. Bleach, for example, causes skin and eye irritation, genetic damage, and allergic responses.⁴ Quaternary ammonium compounds, "quats", cause asthma and skin allergies.⁵ Benzethonium chloride irritates eyes, causes genetic damage, and causes tumors in some studies.⁶

Least-toxic Disinfectants

U.S. EPA's *Design for the Environment Program (DfE)* reviews disinfectants to identify products that meet a broad range of health and safety criteria while also being effective germ killers. All ingredients in the products are reviewed, and are unlikely to cause acute toxicity, cancer, disrupt hormones, cause reproductive harm, damage the nervous system, or damage genes. In addition, no adverse effects have been reported and there are no unresolved enforcement issues.⁷

The Center for Environmental Health recommends products that meet Design for the Environment criteria in addition to being effective against the coronavirus:

- CleanCide
- Purell Disinfectant and Sanitizers
- Lysol® Cleaner with Hydrogen Peroxide: Citrus Sparkle Zest

In addition, 70% alcohol is a least-toxic and effective disinfectant.¹

By using disinfectants carefully and choosing safer products, it is possible to both reduce virus exposure and reduce exposure to hazardous chemicals.

Conclusion

Increased use of disinfectants is expected to be typical in schools and offices for the next months or years. Choosing products that have been comprehensively reviewed – including all ingredients - for potential health and safety problems is critical. The Center for Environmental Health recommends products that meet the health and safety criteria set by U.S. EPA's Design for the Environment program as well as EPA's standard for effectiveness against the coronavirus.

Interested in talking about DfE to the company that makes the disinfectant your institution or business uses?

Please contact CEH at info@ceh.org.

References

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