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The Path to Healthier Hospitals and Safer Chemicals

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The major focus of selecting a healthcare surface disinfectant is often on the kill claims, whether the product kills the most prevalent healthcare pathogens or pathogens of concern, and how quickly it does so. Kill claims are a critical factor in a healthcare disinfectant's performance,¹ but healthcare facilities are increasingly considering safety as another key performance factor. Hospitals are often faced with making tradeoffs between safety and efficacy when selecting a surface disinfectant. The Environmental Protection Agency (EPA), which regulates surface disinfectants, evaluates the safety, efficacy and toxicity of all antimicrobial disinfectants and EPA product labels contain important information on the proper use and hazards of the product. Labeling is very prescriptive, and the EPA requires many claims and content areas on safety and efficacy to appear on product labels. Based on its evaluation, the EPA classifies the products into one of only four toxicity categories which dictates the precautionary statements required on the product label to assist in evaluating these products and solutions.

- Category I products have the highest toxicity ratings and require the signal word "danger" on the front label.
- Category II products have the second highest toxicity rating and require the signal word "warning" on the front label.
- Category III products have a lower toxicity rating and require the signal word "caution" on the front label.
- Category IV is the lowest toxicity category available by all routes of exposure and products that meet this category do not require a signal word and do not require precautionary, first aid, "must wash hands after use", or "hazard to humans and domestic animals" statements.

In addition, the labeling of these products includes information on kill times for key bacteria and viruses, surface compatibility

and any certifications that the product meets. The EPA Design for the Environment (DfE) program is part of its Safer Choice initiative and is aimed at helping consumers, businesses, and purchasers find products that perform well and are safer for human health and the environment.² To be considered for DfE certification, the EPA evaluates every ingredient against a stringent set of health and environmental criteria from a chemical perspective. The EPA publishes an approved list of active and inert ingredients (any ingredient other than the active) that it considers to be of lowest risk and suitable for use in DfE products. The DfE program assures that products listed are in the lowest hazard classes (as discussed above), unlikely to have negative health effects, have no unresolved adverse effects, or unresolved efficacy failures. Only 10 liquid products are currently listed on the DfE program.²

The environmental footprint of healthcare is significant and, in fact, more chemicals are used in healthcare than in any other sector.³ Sustainable or "green" chemistry is a focus on discovering new chemicals, production processes, and product stewardship practices that will provide increased performance and value while meeting the goals of protecting and enhancing human health and the environment.⁴ Many product manufacturers are making efforts to incorporate green chemistry into their product portfolios. Hospital facilities also participate in initiatives such as Practice Greenhealth, whose goals are to work towards sustainable healthcare that is good for the environment, good for patients and staff, and good for the bottom line.⁵ The healthcare environment is meant to be a healing environment. As the technology in products advances and there is increased commitment to green chemistry from industry, having to choose between safety, efficacy and sustainability will hopefully be a thing of the past.

1.) Rutala WA. Selection of the ideal disinfectant. <http://disinfectionandsterilization.org/selection-of-the-ideal-disinfectant/>. Accessed June 27, 2017.

2.) Design for the environment antimicrobial pesticide pilot project: moving toward the green end of the pesticide spectrum. Environmental Protection Agency Web site. <https://www.epa.gov/pesticide-labels/design-environment-antimicrobial-pesticide-pilot-project-moving-toward-green-end>. Accessed June 25, 2017.

3.) Safer chemicals: an overview. Healthier Hospitals Web site. <http://healthierhospitals.org/hhi-challenges/safer-chemicals/resources> Accessed June 26, 2017.

4.) Sustainable Chemistry. OECD Web Site. <http://www.oecd.org/env/ehs/risk-management/sustainablechemistry.htm> Accessed June 27, 2017.

5.) About Practice Greenhealth. Practice Greenhealth Web site. <https://practicegreenhealth.org/about>. Accessed June 26, 2017.

PRODUCT FEATURE

Introducing, **NEW**
PURELL®
Healthcare Surface
Disinfectant



Powerful Germ Kill, PURELL Peace of Mind.

KILLS 22 GERMS IN 30 SECONDS. NO HARSH FUMES.



PURELL Healthcare Surface Disinfectant provides:



RAPID KILL TIME

30-second disinfection for **MRSA, VRE, and Norovirus**



POWERFUL PEACE of MIND

Lowest allowable EPA toxicity rating



EASY-TO-USE

Patented 1-step disinfectant and cleaner



MULTI-SURFACE PERFORMANCE

Proven performance across most hard and soft surfaces



FORMULATED FOR FOOD CONTACT SURFACES

No rinse required on food contact surfaces