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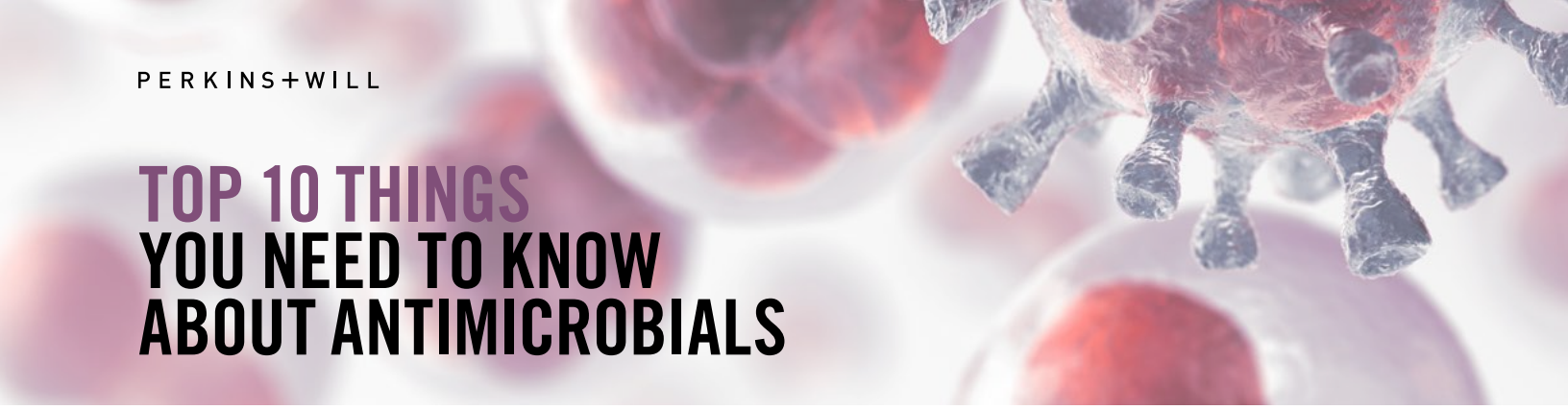

TOP 10 THINGS YOU NEED TO KNOW ABOUT ANTIMICROBIALS

Think those doorknobs, countertops, or floor tiles treated with antimicrobial ingredients are going to keep germs at bay and protect your health? You may want to reconsider. A new **white paper by Perkins+Will and the Healthy Building Network** explains why antimicrobial products marketed as "healthy" may be doing more harm than good. If you don't have time to read the whole paper, we've distilled the most important highlights* into this 2-minute Top 10 read.

1 **They lack proof to back up claims that they protect your health.** Despite the growing popularity of antimicrobial products, there is currently no evidence demonstrating they make people healthier.

2 **They're not necessary,** according to the CDC. While tempting to use antimicrobial products in hospitals and other healthcare settings as a way to ensure cleanliness, the U.S. Centers for Disease Control and Prevention (CDC) say it's not worth it, and that hospitals are better off using proper cleaning practices and maintaining their HVAC systems.

3 **They may harm the environment,** according to the USGS. Antimicrobials are, by definition, pesticides. Therefore, they might pose inherent hazards to human health and the environment. The U.S. Geological Survey (USGS) cited the antimicrobial *triclosan* as one of the most frequently found water contaminants.

4 **They're no more effective at combatting illness-causing germs than plain soap,** according to the FDA. After studying the issue for nearly 40 years, the U.S. Food and Drug Administration (FDA) determined that antimicrobials in hand soaps are not only ineffective, but can also cause harm. The result is a national ban on antimicrobial additives in consumer hand soaps, effective in 2017.

5 **They increase the risk of super-bugs.** The widespread use of antimicrobials may contribute to the formation and spread of illness-causing germs that no longer respond to medical treatment.

6 **They lack transparency.** It's very hard, if not impossible, to determine if antimicrobial additives are in a particular product, and if so, which one is used—even when you examine a Health Product Declaration (HPD) or other third-party certificate.

7 **They can be a Trojan horse for other substances of concern.** Some antimicrobials used as preservatives in wet-applied products (like paint and adhesives) can release small amounts of formaldehyde—a known carcinogen—into the product over time.

8 **Their nanosilver and other metal counterparts aren't necessarily safer,** according to GreenScreen® for Safer Chemicals. A 2015 GreenScreen Assessment found that nanosilver (a popular antimicrobial treatment for textiles) is toxic to aquatic ecosystems, persistent in the environment, and hazardous to human organs.

9 **They aren't always advertised clearly or accurately.** The use of antimicrobial additives in building products is governed by the Environmental Protection Agency (EPA), guided by a complicated regulation known as the Federal Insecticide, Fungicide, and Rodenticide Act, or FIFRA. The complexities of this law make it possible for manufacturers to stretch the truth of their marketing claims about the benefits of antimicrobial products, potentially misleading consumers.

10 **They're being added to Perkins+Will's official Precautionary List.** Perkins+Will is placing "Products Marketed as Antimicrobial" on its Precautionary List, and will be advising clients to choose alternative products where appropriate.

** The information presented in this Top 10 summary has been adapted from content published in Perkins+Will's and Healthy Building Network's white paper, Healthy Environments: Understanding Antimicrobial Ingredients in Building Materials. For brevity and simplicity, the language in the Top 10 summary has been modified from its original version. Please see the full white paper for official language, as well as a complete list of sources, citations, references, and supporting documentation.*