Anti-Microbial Additives and Articles

Information Related to Films, Floor Finishes, and Coatings

Proper cleaning and disinfection are more important now than ever before. Developing a regimented cleaning and disinfection protocol to protect customers and staff is now the "new normal". Many chemicals are used in facilities to clean and disinfect surfaces, significantly impacting labor, time, and budgets. Products such as films, floor finishes, and coatings with antimicrobial additive claims structured around residual kill, or days of efficacy are attractive to facility owners, especially solutions that seemingly could help prevent the spread of disease. Unfortunately, there are a lot of false or misleading claims in this market, such as products that are not US EPA compliant or that simply protect the film/finish/coatings from microbial growth versus providing actual surface disinfection that kills microbes.

The Q&A that follows helps facility managers and staff better understand these products and determine if they are suitable for their needs.

What are antimicrobial additives within products?

There are numerous types of products, including floor finishes and films, that may contain US EPA registered antimicrobial additives. These additives are intended to promote longevity of the article or material itself by preventing mold, mildew, fungus, and/or bacteria from degrading or damaging the article itself, much like a preservative. When these additives are used for the intended purpose of making surface antimicrobial claims the product now requires US EPA registration. Dependent on the claims being made, most products with antimicrobial additives focus on the ability to "prevent or inhibit growth of" bacteria, fungi, mold and/or mildew on the article surface. They do **not** actively kill and remove microbial life on the article surfaces like traditional US EPA registered disinfectants and sanitizers.

What does this surface antimicrobial claim not say?

It is important to note and differentiate that surface antimicrobial efficacy does **not** indicate kill or destruction of microbes. It "prevents or inhibits growth" of bacteria, mold, fungus, and/or mildew. **This is key as it does not directly clean, disinfect, or eliminate, or remove microbes from the surface. It strictly prevents further growth or proliferation of select microbes on the surface that could damage the article.** Facilities maintenance crews will still need to clean and disinfect surfaces in order to meet guidelines.

Prevents bacteria, mold, fungus, or mildew… but what about viruses?

As of May 28th, 2020, there are no antimicrobial additives that actively disinfect or sanitize surfaces over extended periods of time. Surface antimicrobial additives within articles, do not prevent viruses from surviving on a surface. Therefore, one cannot claim any degree of virucidal efficacy on antimicrobial articles.

What about COVID-19?

As of May 28th, 2020, per US EPA regulatory guidance, disinfectants denoted on US EPA's List N are the only solutions recommended for use against SARS-CoV-2, the cause of COVID-19, for pathogen efficacy. Films, floor finishes and coatings with antimicrobial additives are not included on the US EPA List N. They lack the necessary substantiation from the US EPA for claims against SARS-CoV-2, the cause of COVID-19.

Will article products or solutions with surface antimicrobial claims reduce the frequency or need for disinfection?

No. Disinfecting and sanitizing surfaces is still the substantiated method of killing pathogens/microbes on surfaces. Article products with antimicrobial additives strictly inhibit or prevent the growth of bacteria, mold, fungus, and/or mildew on the surface. They do not actively kill or remove soil loads from surfaces. Surfaces still require a preclean (when necessary) and disinfecting step in order to promote a clean facility, maintain a compliant process, and meet the efficacy requirements set forth by joint commission and CDC guidance.

How about claims related to extended efficacy?

Most efficacy claims on products with antimicrobial additives are not targeted for kill. They inhibit or prevent growth of microbes on or within the article or treated surface. Similar to a preservative's function, antimicrobial additives in products have a lifespan that promotes longevity of the article itself and prevents or inhibits the decay from the likes of specific bacteria, mold, mildew, and/or fungus. These residual claims are intended to be effective for a specific period of time:

- Either prior to the article needing replacement, or
- When microbes start to breakdown the article itself

It is important to note that there may be some available products that contain a US EPA registered biocide that can provide extended efficacy for select bacteria (not viruses). It is critical to review the US EPA registration information when such claims are being made.

What about products with literature claims that state otherwise?

These products could be making unsubstantiated claims that conflict with US EPA requirements. In order to make an antimicrobial efficacy or kill claim on product for sale or distribution in the US, the product must be registered with the US EPA. A good designation of this is the presence of a US EPA establishment number printed on the product packaging. If this is not apparent and the product makes an antimicrobial efficacy claim, it is non-compliant with the US EPA and federal law. In this instance it is recommended practice to connect with the manufacturer of the product for more information.

How can I evaluate the claims on a US EPA registered product?

If a product contains a) US EPA registration number and b) a US EPA establishment number…
-It is classified as a US EPA registered pesticide (surface antimicrobial, disinfectants, and sanitizers).
-All claims are tested, validated, and approved by the US EPA.

For more information on tested, validated, and approved claims and language for a specific US EPA registration, follow the link below and enter in the first two segments of the US EPA registration number.
https://iaspub.epa.gov/apex/pesticides/f?p=PPLS:1

If a product contains just a US EPA establishment number…
-It is considered a US EPA registered device.
-Devices claims are owned by the manufacturer and not tested, validated, or substantiated by the US EPA.

If a product does not have a US EPA registration number or US EPA establishment number…
-These products are not to make any sort of surface antimicrobial, sanitizing or disinfecting claims.
-In order to make an antimicrobial claim on a product for sale or distribution in the US, it must be registered with the US EPA.
-These products' antimicrobial claims are not compliant with regulations in the U.S.

In summary, what should I look out for?

1. Evaluate the claim that is being made
2. Determine if this product has a US EPA registration number and/or US EPA establishment number
    a. Look up the US EPA registration number on the US EPA website, obtain more detail on the allowed claims for that additive, and determine if it is a US EPA registered pesticide
    b. If it has only a US EPA establishment number, contact the manufacturer for more information on their claim substantiation
3. Feel free to connect with the article or product manufacturer to learn more about the claims and determine if this is a viable solution for your facility.

Commercial Solutions
3M Center, Building 220 12E-04
St. Paul, MN 55144
1-800-852-9722
3M.com/Facility

Revision A, May 2020. Please recycle.