UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
FOUR PENN CENTER – 1600 JOHN F. KENNEDY BLVD.
PHILADELPHIA, PENNSYLVANIA 19103

In the Matter of:	)	**Docket No. FIFRA-03-2023-0023SS**
	)	
Nanotouch Materials, LLC	)	**STOP SALE, USE OR REMOVAL ORDER**
1053 East London Park Drive	)	
Forest, Virginia 24551	)	**Proceeding under Section 13(a) of the Federal**
	)	**Insecticide, Fungicide and Rodenticide Act,**
Respondent.	)	**7 U.S.C. § 136k(a)**

STOP SALE, USE OR REMOVAL ORDER

I. AUTHORITY

1. This Stop Sale, Use or Removal Order ("Order") is issued to Nanotouch Materials, LLC ("Nanotouch" or "Respondent") pursuant to the authority vested in the Administrator of the U.S. Environmental Protection Agency ("EPA" or the "Agency") by Section 13(a) of the Federal Insecticide, Fungicide and Rodenticide Act ("FIFRA"), as amended, 7 U.S.C. § 136k(a), which authorizes the Administrator of the EPA to issue an order prohibiting the sale, use, or removal of any pesticide or device whenever there is reason to believe that such pesticide or device is in violation of any provision of FIFRA, or the pesticide or device has been or is intended to be distributed or sold in violation of any provision of FIFRA.

2. The Administrator of the EPA delegated this authority under FIFRA to the Regional Administrators by the EPA Delegation 5-12. The authority to issue Stop Sale, Use or Removal Order Orders has been redelegated to the Director of the EPA Region 3 Enforcement and Compliance Assurance Division, among other delegatees.

II. APPLICABLE LAW

3. Section 3 of FIFRA, 7 U.S.C. § 136a, states that no person in any State may distribute or sell to any person any pesticide that is not registered under FIFRA.

4. Section 12(a)(1)(A) of FIFRA, 7 U.S.C. § 136j(a)(1)(A), provides that it is unlawful for any person in any State to distribute or sell to any person any pesticide that is not registered under Section 3 of FIFRA, 7 U.S.C. § 136a.

5. Section 2(s) of FIFRA, 7 U.S.C. § 136(s), defines a "person" as any individual, partnership, association, corporation, or any organized group of persons whether incorporated or not.

6. Section 2(u) of FIFRA, 7 U.S.C. § 136(u), defines a "pesticide" in part, as any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest.

7. Section 2(t) of FIFRA, 7 U.S.C. § 136(t), defines a "pest" as any insect, rodent, nematode, fungus, weed, or any other form of terrestrial or aquatic plant or animal life or virus, bacteria or other micro-organism (except viruses, bacteria, or other micro-organisms on or in living man or other living animals) which the Administrator declares to be a pest under Section 25 of FIFRA, 7 U.S.C. § 136w(c)(1).

8. Section 2(mm) of FIFRA, 7 U.S.C. § 136(mm), defines an "antimicrobial pesticide" as a pesticide that is intended to disinfect, sanitize, reduce, or mitigate growth or development of microbiological organisms; or protect inanimate objects, industrial processes or systems, surfaces, water, or other chemical substances from contamination, fouling, or deterioration caused by bacteria, viruses, fungi, protozoa, algae, or slime.

9. Pursuant to FIFRA implementing regulations at 40 C.F.R. § 152.15, a substance is considered to be intended for a pesticidal purpose, and thus to be a pesticide requiring registration, if: (a) the person who distributes or sells the substance claims, states, or implies (by labeling or otherwise that the substance (either by itself or in combination with any other substance) can or should be used as a pesticide; or that the substance consists of or contains an active ingredient and that it can be used to manufacture a pesticide; (b) the substance consists of or contains one or more active ingredients and has no significant commercially valuable use as distributed or sold other than use for pesticidal purpose (by itself or in combination with any other substance), or use for manufacture of a pesticide; or (c) the person who distributes or sells the substance has actual or constructive knowledge that the substance will be used, or is intended to be used, for a pesticidal purpose.

10. Section 2(gg) of FIFRA, 7 U.S.C. § 136(gg), defines "to distribute or sell" to mean to distribute, sell, offer for sale, hold for distribution, hold for sale, hold for shipment, ship, deliver for shipment, release for shipment, or receive and (having so received) deliver or offer to deliver." *See also* 40 C.F.R. § 152.3.

11. Section 2(p) of FIFRA, 7 U.S.C. § 136(p), defines "label" as the written, printed, or graphic matter on, or attached to, the pesticide or device or any of its containers or wrappers;" and defines "labeling" as all labels and all other written, printed, or graphic matter accompanying the pesticide or device at any time; or to which reference is made on the label or in literature accompanying the pesticide or device.

III. BASIS FOR ORDER

12. Respondent is a Virginia limited liability company with its principal place of business located at 1053 East London Park Drive in Forest, Virginia. Respondent is a "person" as defined in Section 2(s) of FIFRA, 7 U.S.C. § 136(s).

13. In August 2020, EPA Region 3 received a tip recommending that Respondent and its www.nanoseptic.com website be evaluated for compliance with FIFRA.

14. On September 22, 2020, EPA Region 3 issued a letter ("2020 Information Request") requesting that Respondent provide information including, but not limited to, a list of products it offers for sale, as well as associated marketing and/or advertising materials, product packaging and labeling, and sales records for each product.

15. On November 6, 2020, Respondent provided its partial response to the 2020 Information Request.

16. Respondent's response to the 2020 Information Request included evidence that it offered multiple self-cleaning surface products for sale under the brand name NanoSeptic (NanoSeptic self-cleaning products), and that it operated the website: www.nanospetic.com.

17. The term "septic" is defined as "infected with bacteria". The Britannica Dictionary. (n.d.) In *britannica.com/dictionary*. Retrieved September 29, 2022, from https://www.britannica.com/dictionary/septic; Macmillan Dictionary. (n.d.) In *macmillandictionary.com/us.* Retrieved September 29, 2022, from https://www.macmillandictionary.com/us/dictionary/american/septic.

18. Respondent's response to the 2020 Information Request included marketing and/or advertising materials that imply that its NanoSeptic self-cleaning products are intended for a pesticidal purpose, such as:

(a) A brochure called *NanoSeptic. The New Clean* that contains the following statements:

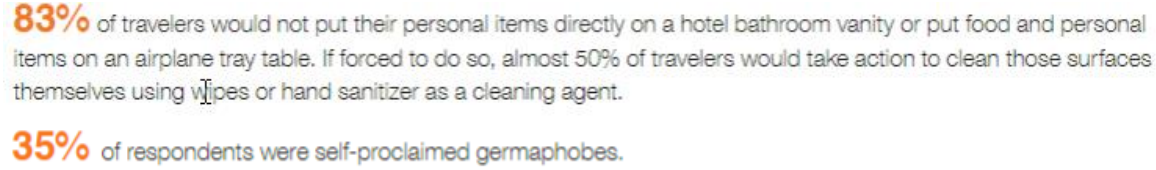
"Bacteria, viruses and other germs are not only an ongoing threat, but a growing concern for the public. For this reason, anything we can do in the medical community to help in this fight is a good thing. There's no one fix. We need many tools. NanoSeptic® surfaces work in concert with disinfectants, cleaners, hand sanitizers and other methods for creating cleaner environments. It's a great, new addition to the tools we have at our disposal."

– Dr. Michael Miller
Surgeon, Commonwealth Oral & Facial Surgery

"The reality is that touchpoints, especially door handles, become contaminated right after cleaning. The next touch, sneeze or toilet flush deposits contaminants that can actually multiply over time. These Nanoseptic sleeves work continuously, in between routine cleanings, greatly increasing the cleanliness of the door handles our employees and Tribal Members touch."

– Jess Baidwan
MESCE, Division Head
Environmental Services for the Southern Ute Tribe and I.C.E (ISSA Certification Expert)

(b) A Case Study called *Market Research Report Traveler Perceptions of Self-Cleaning Surfaces* that contains the following statements:



83% of travelers would not put their personal items directly on a hotel bathroom vanity or put food and personal items on an airplane tray table. If forced to do so, almost 50% of travelers would take action to clean those surfaces themselves using wipes or hand sanitizer as a cleaning agent.

35% of respondents were self-proclaimed germaphobes.

19. At the end of September 2021, Respondent changed its product branding from NanoSeptic to Nanotouch (Nanotouch self-cleaning products).

20. Respondent's website[1] uses the term "Nanotouch (formerly NanoSeptic)" to describe its products and clarifies that neither "the effectiveness of our products" nor "the environmentally friendly way in which they are produced" have changed in connection with the rebranding to Nanotouch self-cleaning products.[2]

21. On January 19, 2022, Respondent submitted a request for a determination from EPA's Office of Pesticide Programs as to whether its Nanotouch self-cleaning products are considered pesticidal devices, pursuant to Pesticide Registration Improvement Act (PRIA) code M009 (Device Determination Request).

22. Respondent's Device Determination Request included a technical memorandum explaining why its Nanotouch self-cleaning products should be considered pesticidal devices and not pesticides requiring registration. The technical memorandum documented both how the products use "light and a catalyst to speed up the generation of hydroxyl radicals and super oxide anions which are used to control pathogens through physical destruction of cells" as well as applicable EPA guidance and regulations for devices.

23. On June 10, 2022, EPA's Office of Pesticide Programs responded to Respondent's Device Determination Request (OPP Determination) concluding *inter alia* that the Nanotouch self-cleaning products were not devices but pesticides requiring registration because they contain a substance – titanium dioxide (TiO_2) - to achieve a desired pesticidal effect by acting as a photocatalytic coating adhered to an adhesive.

24. On June 14, 2022, EPA attempted to conduct a FIFRA inspection pursuant to Sections 8 and 9 of FIFRA, 7 U.S.C. §§ 136f and 136g, but Respondent refused to allow EPA to conduct the inspection.

25. On July 22, 2022, EPA Region 3 issued a second letter ("2022 Information Request") requesting Respondent provide additional information about its Nanotouch self-cleaning products in lieu of being subject to an additional inspection.

26. On August 19, 2022, Respondent provided its response to the 2022 Information Request.

27. Respondent's response to the 2022 Information Request included copies of labels for its Nanotouch self-cleaning products. The labels for Respondent's Nanotouch self-cleaning products reference the website www.nanotouch.com, rendering the information on the www.nanotouch.com website "labeling" as defined by Section 2(p) of FIFRA, 7 U.S.C. § 136(p).

[1] https://nanotouch.com/
[2] https://nanotouch.com/blog/so-long-nanoseptic-hello-nanotouch/

28. Respondent's website includes answers to frequently asked questions[3] that include claims, statements, or implications that its Nanotouch self-cleaning products are intended for a pesticidal purpose such as:

29. Respondent's website references editorial content written by its co-founder Mark Sisson[4] such as *NanoTechnology-The Next Really Big Small Thing*[5] and *The War on Germs Goes High Tech*[6] that include claims, statements, or implications that its Nanotouch self-cleaning products are intended for a pesticidal purpose.

(a) Examples from *NanoTechnology-The Next Really Big Small Thing* include:

> *Today, specific forms of nano Ti02 produce a powerful photocatalytic oxidation reaction using nothing but normal indoor light. The nano crystals that create this reaction are around 8 nanometers. To put it into perspective, DNA is around 2 nanometers, a typical bacteria 200 nanometers, and that microfiber cloth thread is a whopping 1,000 nanometers. If we put on our cleaning hats for a minute, it's not too difficult to imagine how useful a substance could be that creates an oxidation reaction from light. Could this be the Holy Grail for cleaners? Could this create surfaces that oxidize contaminants and kill pathogens automatically… dare I say "self-cleaning" surfaces?*
>
> * * *
>
> *The self-cleaning process actually happens in multiple ways. First, the basic oxidation process happens directly with any organic material that comes in contact with the surface, breaking down the contaminant into base elements like water and carbon dioxide. The second process, which will be of special interest to infection-prevention professionals, involves the oxidation of water molecules, which produce hydroxyl radicals.*
>
> *While hydroxyl radicals have extremely short lifespans, existing for less than 1 millionth of a second, they are extremely deadly to microorganisms like bacteria, viruses, and fungi. And because the*

[3] https://nanotouch.com/faq/
[4] https://nanotouch.com/our-story2/
[5] https://www.fmlink.com/articles/the-next-big-really-small-thing/
[6] https://www.fmlink.com/articles/new-technologies-war-germs/

process is oxidative rather than enzymatic or antibiotic, the surface doesn't contribute to antimicrobial resistance or "super bugs."

* * *

What does this really mean to the cleaning industry and how can this help us clean for wellness rather than just appearance? First, by oxidizing organic material, like bacteria and viruses, we can create a surface that doesn't just look clean…it's truly clean at a microscopic scale. In too many cases, outbreaks from a specific pathogen happen in facilities that look perfectly clean. It's human nature to think a surface is clean when we can't see any dirt. But it's all of those nasty bugs we can't see that cause problems.

* * *

In a recent study by Dr. Charles Gerba, microbiologist at the University of Arizona, a single touch point, such as a door handle, was inoculated with a harmless bacteria surrogate. Within two to four hours, between 40 percent and 60 percent of the contact surfaces in the entire office building were contaminated. The bottom line is that many common germs are spread by touching surfaces that have been contaminated from a previous touch. This is where nanotechnology-based self-cleaning surfaces really shine.

Traditional cleaning and disinfection is basically a one-time kill. Can you imagine your cleaning staff having to disinfect a door handle after each and every touch?

* * *

One hot area of research is in developing material science that accentuates the photocatalytic action. Surface textures and properties can help to attract and trap pathogens so that the nanotechnology can do the killing faster and more thoroughly. In our research over the last three years, this type of holistic approach, combining special substrates, primers, and Ti02, has resulted in reliable three log reductions for E. Coli and S. Aureus (each log equals a 90 percent reduction). And in one test using the human Coronavirus, which was done for Saudi Arabia during the MERS outbreak, all virus cells were killed somewhere under 30 minutes.

Not surprisingly, the efficacy of this technology is getting better at a rapid pace. New approaches using additives to Ti02 are producing impressive results. A recent independent lab test we conducted using new formula prototypes produced a 99.9998 percent reduction in Staph A…almost a six log reduction! None of us want a sterile environment, but nanotechnology provides a powerful approach to disinfection that has the potential to create cleaner, healthier surfaces exactly where and when they are needed around the clock.

(b) Examples from *The War on Germs Goes High Tech* include:

> *Whether you're a new mom, a human resource manager, or a hospital infection preventionist, illness caused by contagious pathogens is something that is universally dreaded. Scarier still, are the new strains of pathogens and antibiotic resistant bugs that seem to pop up over night.*
>
> *The good news is there are more tools at our disposal to fight the war on germs than ever before.*
>
> * * *
>
> *Ever heard of a technology that is more than 40 years old but is considered state-of-the-art? Well, that would describe photocatalytic surfaces. These surfaces use a mineral nanocrystal as a catalyst, harnessing the power of light. [ ]. A fascinating aspect of a photocatalytic surface is that it creates two independent cleaning actions. The first is an oxidation reaction that breaks down organic contaminants, including bacteria, viruses, fungi, spores, and even volatile organic compounds (VOCs). The second is the creation of hydroxyl radicals, one of the most powerful types of pathogen killers.*
>
> * * *
>
> *Historical tests by a variety of research organizations produced kill rates of 99.9% (3 log) in 24 hours. With the new materials, independently verified kill rates of 99.9998% (almost 6 log) are being produced. Equally exciting a large hospital in Saudi Arabia asked to test the technology against the human Coronavirus, a strain of which was causing the MERS outbreak and had a 40 percent mortality rate. After inoculating the self-cleaning surface with roughly 1 million virus cells, lab tests showed complete eradication in under 30 minutes.*

30. Respondent's website contains links to its social media sites,[7] including Facebook[8] and Twitter,[9] which include claims, statements, or implications that its Nanotouch self-cleaning products are intended for a pesticidal purpose.

(a) Examples from its Facebook page include:

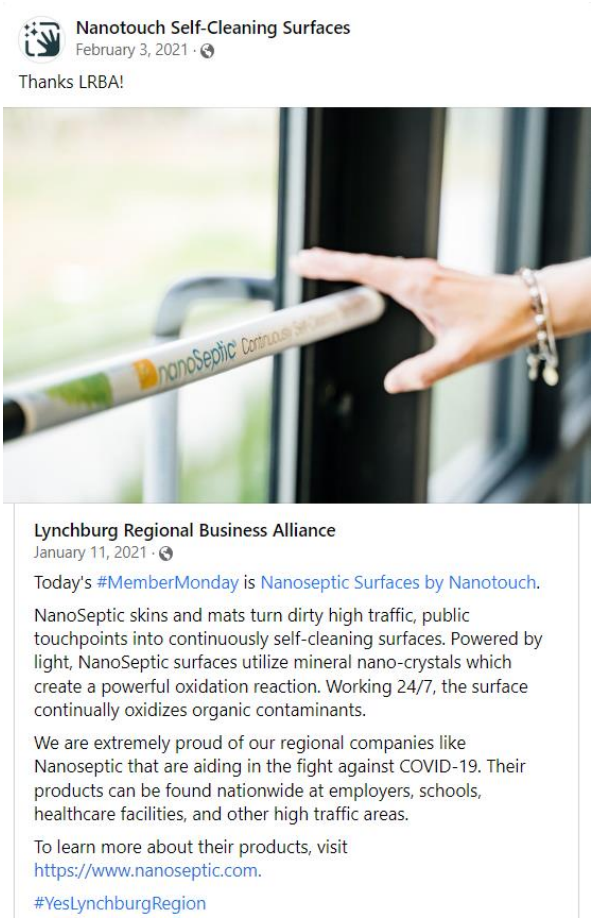
i.

[7] https://nanotouch.com/
[8] www.facebook.com/NanotouchClean
[9] www.twitter.com/NanotouchClean

At https://bit.ly/38pU7ps (https://www.cleanlink.com/hs/article/Facility-Benefits-From-Testing-Nanotechnology-Products--27454), the CleanLink article states:

> "*I do ATP testing when I go through a building," says Baidwan. "Every time I test a NanoSeptic installation, it comes out zero, so there is no biologic living on the surface."*
>
> ***
>
> *"It's also a banner, almost an advertisement that demonstrates that you care about people's health," explains Baidwan. "When occupants see the NanoSeptic labels, stickers, sleeves and buttons, then they know we are looking out for them and doing everything we can to keep them healthy."*
>
> *Overnight, the pandemic amped up occupant awareness of cleaning. Departments are now focusing on showcasing efforts that will result in healthy and safe environments.*
>
> *"COVID-19 amped up that awareness tenfold," says Baidwan, "but we'd already been using NanoSeptic for so long. It reinforced the fact that we care about our building occupants, our visitors; we want them to stay healthy. This is something tangible they can see and feel and they're reminded that we care about their health."*

ii.



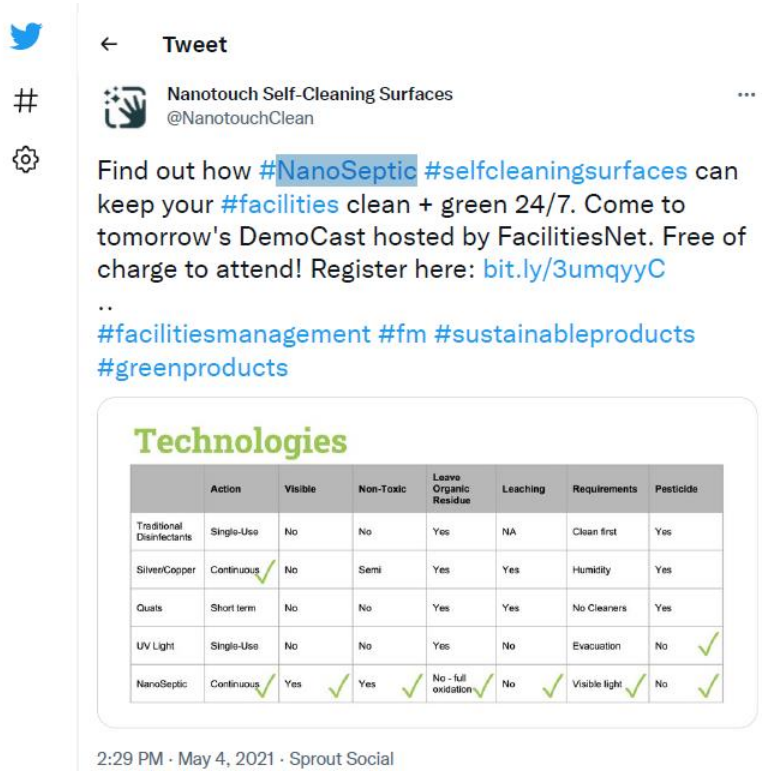
iii.

At the NAOT.CAMAPAIGN-VIEW.COM link, it states:

> *In a new article in Cleaning and Maintenance Management Magazine, Cintas looks at which surfaces are hotspots for contamination and need to be cleaned regularly to prevent outbreaks during the upcoming season. Door handles happen to be number 1 on the list. Good thing NanoSeptic has you covered. And with our new ADA door handle sleeves, all of those interior door handles can now be turned into self-cleaning surfaces.*

(b) Examples from its Twitter page include:

i.



	Action	Visible	Non-Toxic	Leave Organic Residue	Leaching	Requirements	Pesticide
Traditional Disinfectants	Single-Use	No	No	Yes	NA	Clean first	Yes
Silver/Copper	Continuous ✓	No	Semi	Yes	Yes	Humidity	Yes
Quats	Short term	No	No	Yes	Yes	No Cleaners	Yes
UV Light	Single-Use	No	No	Yes	No	Evacuation	No ✓
NanoSeptic	Continuous ✓	Yes ✓	Yes ✓	No - full oxidation ✓	No ✓	Visible light ✓	No ✓

ii.

At the cbsnews.com link, the article *Minnesota Music Venues Preparing to Road Back as COVID Restrictions Loosen* states:

We're used to massive headliner shows at "The X." The ones on the calendar are rescheduled from 2020, and depend on restrictions. But when the gates can open again, UV lights will keep the escalators germ free, and self-cleaning adhesive will protect things like door handles.

iii.

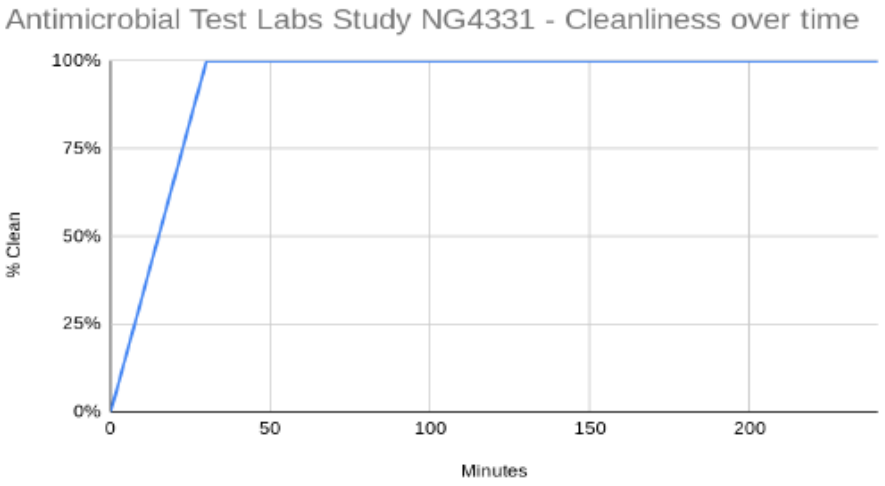
31. Respondent's response to the 2022 Information Request included materials it sends out when information is requested or when orders are placed that imply that the NanoSeptic self-cleaning products are intended for a pesticidal purpose. These materials include a

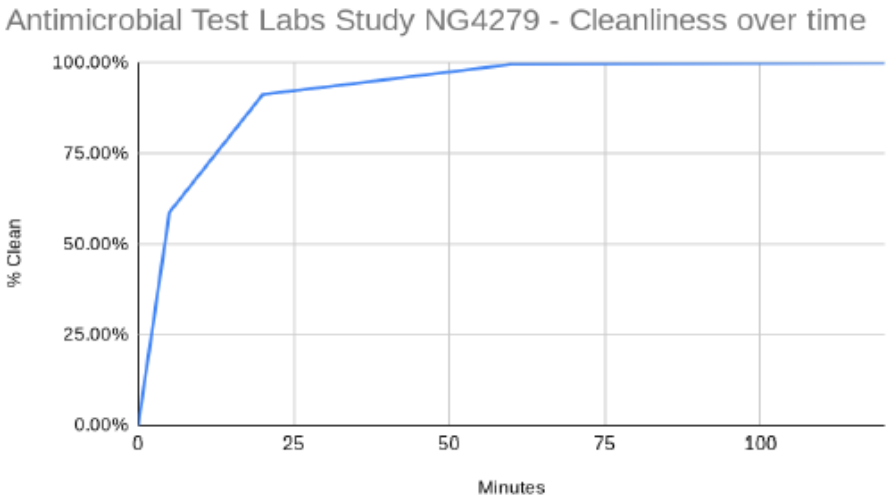
document called *Independent Cleanliness Studies conducted by Antimicrobial Test Labs using multiple organic contaminants* that contain the following charts:

nanotouch®
self-cleaning surfaces

Independent Cleanliness Studies

Sample of Cleanliness Studies done by Antimicrobial Test Labs (now MicroChem) using JIS Z2801 and ISO 22196 standardized test protocols using multiple organic contaminants.



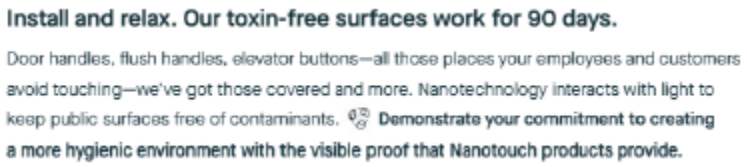


According to Microchem,[10] the JIS Z 2801 method tests the ability of plastics, metals, ceramics and other antimicrobial surfaces to inhibit the growth of microorganisms or kill

[10] https://microchemlab.com/test/jis-z-2801-test-antimicrobial-activity-plastics/

them. The procedure is very sensitive to antimicrobial activity and has a number of real world applications anywhere from the hospital/clinical environment to a household consumer company concerned with the ability of a material they have to allow bacterial growth.

32. Respondent's response to the 2022 Information Request included advertising and social media posts that imply that the NanoSeptic self-cleaning products are intended for a pesticidal purpose such as:


Install and relax. Our toxin-free surfaces work for 90 days.

Door handles, flush handles, elevator buttons—all those places your employees and customers avoid touching—we've got those covered and more. Nanotechnology interacts with light to keep public surfaces free of contaminants. **Demonstrate your commitment to creating a more hygienic environment with the visible proof that Nanotouch products provide.**

(ad that ran in the print publication *HR Professional*).

33. On its website, Respondent offers multiple Nanotouch self cleaning products for sale, including elevator button covers, labels for elevator panels, Cell*f* Defense (for electronic devices), mouse pads, touchscreen films, touchscreen labels, clean workstation kits, demo kits, full sample kits, starter kits, counter mats with window pockets, portable mats, ADA push pads, bar wraps, cut your own (for custom applications), handle wraps, push pads, push/pull plate wraps, bathroom stall latch sleeves, door handle sleeves (in bulk or smaller quantities), doorknob sleeves, flush handle sleeves, light switch sleeves, and tissue box covers.[11]

34. By offering its Nanotouch self-cleaning products for sale on its website, Respondent is "distributing or selling" within the meaning of Section 2(gg) of FIFRA, 7 U.S.C. § 136(gg).

35. Respondent's Nanotouch self-cleaning products are not exempt as cleaners under 40 C.F.R. § 152.10(a) for several reasons, including that Respondent makes pesticidal claims on their labeling or in connection with their sale and distribution.

36. Respondent's Nanotouch self-cleaning products are "pesticides" as defined in Section 2(u) of FIFRA, 7 U.S.C. § 136(u).

37. Respondent's Nanotouch self-cleaning products are not registered under Section 3 of FIFRA, 7 U.S.C. § 136a.

38. By offering its Nanotouch self-cleaning products for sale on its website, Respondent is distributing or selling unregistered pesticides, constituting unlawful acts under Section 12(a)(1)(A) of FIFRA, 7 U.S.C. § 136j(a)(1)(A).

IV. SUMMARY OF BASIS FOR THE ORDER

[11] https://nanotouch.com/shop

39. As described above, EPA has reason to believe that Respondent's Nanotouch self-cleaning products are unregistered pesticides, and that Respondent intends to distribute or sell its sell its unregistered Nanotouch self-cleaning pesticide products in violations of Section 12(a)(1)(A) of FIFRA, 7 U.S.C. § 136j(a)(1)(A).

V. ORDER

40. Pursuant to Section 13(a) of FIFRA, Respondent is hereby ordered to STOP the sale, use or removal of its Nanotouch self-cleaning surface products, including but not limited to the products described in paragraph 33 above, under its ownership, custody or control, wherever such products are located, except in accordance with the provisions of the Order or any subsequent modification to this Order.

41. This Order applies to all quantities (in all packaging types and sizes) of Nanotouch self-cleaning surface products, including but not limited to the products described in paragraph 33 above, owned, controlled, or in the custody of Respondent or any parties acting as agents for Respondent wherever they may be located in the United States, or that may come into the possession of Respondent, so long as the products are not registered with the EPA.

42. The products covered by this order shall not be distributed, sold, offered for sale, held for distribution, held for sale, held for shipment, shipped, delivered for shipment, released for shipment, or received and (having so received) delivered or offered for delivery, used or removed for any reason, other than in accordance with the provisions of the Order without prior written approval from the EPA. Respondent shall send all written request(s) for approval to:

> Hannah G. Leone
> Assistant Regional Counsel
> EPA, Region 3
> Office of Regional Counsel
> Leone.Hannah@epa.gov

43. Failure to comply with this Order is a violation of Section 12(a)(2)(I) of FIFRA, 7 U.S.C. § 136j(a)(2)(I), which provides that it shall be unlawful for any person to violate any Order issued pursuant to Section 13 of FIFRA, 7 U.S.C. § 136k. Violations of the terms or provisions of this Order may subject Respondent and/or any responsible person to civil or criminal penalties as prescribed in Section 14 of FIFRA, 7 U.S.C. § 136*l*.

44. The issuance of this Order shall not act as a waiver by EPA of any enforcement or other authority available to the EPA under FIFRA or any other federal statute.

45. This Order shall be EFFECTIVE IMMEDIATELY upon receipt by Respondent.

46. This Order shall remain in effect unless and until revoked, terminated, suspended, or modified in writing by the EPA.

47. If any provision or provisions of this Order is/are subsequently held to be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not be affected or impaired thereby and they shall remain in full effect.

48. Respondent may seek federal judicial review of the Order pursuant to Section 16 of FIFRA, 7 U.S.C. § 136n.

KAREN MELVIN Digitally signed by KAREN MELVIN Date: 2023.01.31 15:55:05 -05'00'

Karen Melvin, Director
Enforcement and Compliance Assurance Division

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
Philadelphia, Pennsylvania 19103-2029

In the Matter of:	**)**	**Docket No. FIFRA-03-2023-0023SS**
	)	
Nanotouch Materials, LLC	**)**	**STOP SALE, USE OR REMOVAL ORDER**
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Forest, Virginia 24551	**)**	**Proceeding under Section 13(a) of the Federal**
	)	**Insecticide, Fungicide and Rodenticide Act,**
Respondent.	**)**	**7 U.S.C. § 136k(a)**

CERTIFICATE OF SERVICE

I certify that the foregoing Stop Sale, Use or Removal Order was filed with the EPA Region III Regional Hearing Clerk on the date that has been electronically stamped on the Stop Sale, Use or Removal Order. I further certify that on the date set forth below, I caused to be served a true and correct copy of the foregoing Stop Sale, Use or Removal Order to each of the following persons, in the manner specified below, at the following addresses:

Copies served via email to:

Mark Sisson, Co-Founder
Nanotouch Materials, LLC
Mark@Nanotouch.com

Bernadette M. Rappold, Esq.
Greenberg Traurig, LLP
rappoldb@gtlaw.com

Dennis Hackenmeyer, Co-Founder
Nanotouch Materials, LLC
dennis@nanotouch.com

Copies served via email to:

Hannah Leone, Esq.
Assistant Regional Counsel
U.S. EPA, Region III
Leone.hannah@epa.gov

Holly Raguza
Life Scientist
U.S. EPA, Region III
Raguza.holly@epa.gov

BEVIN ESPOSITO Digitally signed by BEVIN ESPOSITO Date: 2023.01.31 17:11:17 -05'00'

[*Digital Signature and Date*]

Regional Hearing Clerk
U.S. Environmental Protection Agency,
Region III