

Food Contact and Cleaning Products

Tech Talk

This Tech Talk is based on the regulatory framework for food contact with cleaning products in the United States, which may vary from requirements in other countries. Local regulations should always be consulted when evaluating food-contact requirements outside of the U.S.

In general, there are two main categories of cleaning products for areas where food may be processed, prepared, or served; formulated chemical substances and devices or tools such as scouring hand pads. A common question is whether these products are "safe for use in a food environment." **Ultimately, it is the end-user's responsibility to determine whether a product is appropriate depending on how they plan to use it, and the information that follows may help in making that determination.**

There are a number of organizations and programs that may have applicable guidelines or standards with regard to the use of cleaning products where there is a potential for food contact. Among them are the Food and Drug Administration (FDA), United States Department of Agriculture (USDA), the National Sanitation Foundation (NSF), Hazard Analysis and Critical Control Point (HACCP), and the Environmental Protection Agency (EPA). References from these entities should be consulted for more complete detail as appropriate, but portions of their current or historic programs will be discussed here as they relate to frequently asked questions about food contact and cleaning products.

FDA

The process to obtain "FDA approval" is typically reserved for ingredients of food, drugs, or cosmetics, and/or ingredients that are reasonably expected to become components of food, drugs, or cosmetics.

Most cleaning products are not intended to become ingredients in food, drugs or cosmetics, and therefore "FDA approval" does not apply.

Products intended for direct food contact must meet the requirements of all FDA regulations that apply to that particular application. Most cleaning products, however, are not intended to come into direct contact with food, but can still be used on food contact surfaces. With the exception of some products like the 3M™ Sanitizer Concentrate and Scotch-Brite™ Quick Clean Griddle Liquid, most cleaning products require a rinse of the surface with potable water prior to contact with food to wash away any residual cleaning material or loosened food soil.

There are also general requirements for the use of cleaning products in food contact areas described in the US FDA 2013 Food Code (link below). For example, section 4-603.14 for Wet Cleaning indicates that "Equipment food-contact surfaces and utensils shall be effectively washed to remove or completely loosen soils by using the manual or mechanical means necessary such as the application of detergents containing wetting agents and emulsifiers; acid, alkaline, or abrasive cleaners; hot water; brushes; scouring pads; high-pressure sprays; or ultrasonic devices." Additionally, section 4-603.16 for Rinsing Procedures indicates that "Washed utensils and equipment shall be rinsed so that abrasives are removed and cleaning chemicals are removed or diluted through the use of water or a detergent-sanitizer solution".

<http://www.fda.gov/Food/GuidanceRegulation/RetailFoodProtection/FoodCode/ucm374275.htm>

USDA

Historically, the Food Safety and Inspection Services (FSIS), a branch of the United States Department of Agriculture (USDA), required meat and poultry facilities to use only products that had been approved under the USDA authorization program (sometimes referred to as “food-grade” products). However, in 1998 this USDA authorization program was discontinued, and the FSIS significantly altered their approach to facility inspections, eliminating the need for USDA product evaluation. This new approach was driven by the established methodology or system of facility operation, known as Hazard Analysis and Critical Control Point (HACCP). More information can be found in the link below.

<https://www.gpo.gov/fdsys/pkg/FR-1998-02-13/pdf/FR-1998-02-13.pdf>

HACCP METHODOLOGY

According to Hazard Analysis and Critical Control Point (HACCP) methodology, food manufacturing and processing establishments must identify and manage critical control points in their process. Control points are defined as those where chemical, physical, and microbial contamination may occur. Once these points are identified, the processor must reduce contamination risk and maintain documentation describing the corrective actions taken. For nonfood compounds, such as cleaning products, facility operators must select the appropriate product to not only meet their operational needs, but also their HACCP requirements.

NSF

With the elimination of the USDA authorization program, the National Sanitation Foundation (NSF) became a replacement third-party certifier for products historically covered by the USDA program. NSF’s Nonfood Compounds program helps to educate and evaluate the risk of potential contamination from products used in and around food processing areas. Achieving a NSF Nonfood compound certification can help validate such products and provide additional comfort to users in food establishments. This NSF program can help evaluate a wide range of nonfood compounds and proprietary substances in many different categories which include cleaning and antimicrobial products.

As an example, the 3M™ Stainless Steel Cleaner & Polish Aerosol is NSF A7 registered. You will find the reference and NSF registration number on the product label. This registration category, however, does not indicate that the product is “food grade” or safe for use on food-contact surfaces. NSF A7 category is for metal polishing cleaning products for use on non-food-contact surfaces in food processing establishments. If used on food-contact surfaces, like other cleaning products, the surface must be thoroughly rinsed with potable water after using.

HACCP INTERNATIONAL

Since HACCP methodology is solely focused on food safety, HACCP International was another third-party created to help food establishments evaluate the safety of non-food products used in the food industry. To obtain HACCP International third-party certification, non-food products are thoroughly assessed for toxicity, design, intended use, contamination potential, and possible misuse to determine if the product can be considered, “Food Safe and Fit for Purpose,” in its intended application.

EPA

Chemical sanitizers and other antimicrobials applied to food-contact surfaces are regulated by the US EPA, and must meet the requirements specified in FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act). These products must go through an extensive testing, review, and registration process prior to being allowed for sale and will obtain a product specific EPA registration number indicating its approval under FIFRA. Refer to the link below for more information on the process used to register pesticide products under FIFRA:
<https://www.epa.gov/pesticide-registration/antimicrobial-pesticide-registration>

The 3M™ Sanitizer Concentrate is registered with the US EPA and is approved as a no-rinse food-contact sanitizer. It is not intended to be used directly on food, but is safe to use on food-contact surfaces without a water rinse when used as directed. Disinfectant products are not intended for use in no-rinse food-contact applications and, like other cleaning products used on food contact surfaces, must be thoroughly rinsed from the surface with potable water after use. Some specified disinfectant products, when used according to label directions, can be appropriate for use in a food facility.

This specific tolerance for no-rinse sanitizers granted by the EPA per 40 CFR 180.940 is only applicable “when used in accordance with good manufacturing practice as ingredients in an anti-microbial pesticide formulation, provided that the substance is applied on semi-permanent or permanent food contact surface with adequate draining before contact with food.” In the case of the 3M™ Sanitizer Concentrate, the active ingredient (quaternary ammonium compounds) concentration, when present in ready to use form, must not exceed 400 ppm in order to remain compliant within the food contact antimicrobial parameters.

SUMMARY

Cleaning products, while not typically intended for direct food contact or as food ingredients, can still be used on surfaces that later come into contact with food. In general, surfaces should be thoroughly rinsed with potable water after cleaning and prior to contact with food. Some products however, may be appropriate for no-rinse food contact applications, such as 3M™ Sanitizer Concentrate and Scotch-Brite™ Quick Clean Griddle Liquid. The information provided in this Tech Talk, along with the product label directions, should help guide the end-user to appropriate cleaning product choices for applications in areas where food contact might occur.

NOTICE TO READER

The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed. Many factors beyond 3M’s control and uniquely within the user’s knowledge and control can affect the use and performance of a 3M product in a particular application. Given the variety of factors that can affect the use and performance of a 3M product, the user is solely responsible for evaluating the 3M product and determining whether it is fit for a particular purpose and suitable for user’s method of application.



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