



## Detergent Formulations for Cleaning and Disinfection in the Food Industry II

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### Message from the Guest Editors

Food industries require regular cleaning and disinfection operations to reach a high quality of food conforming to legal dispositions. The washing process has to remove amylaceous, lipid, and protein-based dirt mainly, although these are usually mixed, creating mixed dirt. The existence of microorganisms can also generate the formation of biofilms that are difficult to remove.

To achieve the required degree of cleaning and disinfection, washing protocols are established and detergent formulations are adapted to the characteristics of the dirt and the nature of the surfaces of the equipment and industrial facilities, usually made of stainless steel. These protocols and formulations can incorporate surfactants (anionic, nonionic, cationic, etc.), enzymes (amylases, lipases, proteases, etc.), nanoparticles, ozone, disinfectants, and other chemical compounds that allow effective cleaning for the different types of dirt that can be found in these industries.

**Keywords:** cleaning food industries; detergent; surfactants; biofilm; disinfection; enzymes; nanoparticles; ozone





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