



FOOD PROCESSING

Application In Food Processing Industry

Food processing industry its production processes are prone to microbial contamination due to continual contact with foreign surfaces and water in several cases. Hence, it is very important to choose a suitable disinfectant which effectively addresses the sanitation challenges in food plants. Poor sanitation of food contact surfaces has been a contributing factor to outbreaks of food borne diseases. These outbreaks are caused by pathogens in food, especially *Listeria monocytogenes*, *Escherichia coli* or *Staphylococcus aureus*. Inadequate sanitation of surfaces facilitates rapid soil building, which in the presence of water shapes an ideal precondition for bacterial biofilm forming. Biofilm is considered to pose a significant health risk in the dairy industry because it can harbor pathogens, and direct contact with them can lead to food contamination. Biofilm control is often performed using strong oxidizing agents like chlorine and peracetic acids, however, with limited effects.

- Foodborne pathogens cause about 100 illnesses a minute, 15 hospitalizations an hour and more than 6 fatalities a day in the US (CDC, 2011).
- Estimated economic damage for the industry > \$7 billion p.a.
- Recall costs: getting food off shelves, lawsuits and settlements, revamping plants, repairing public relations.
- Tainted reputation, loss of consumer confidence, lost sales, bankruptcy.
- Personal, civil and criminal liability.
- HACCP, FDA Food Code, USDA FSIS, etc. are only part of the solution.
- Production and process water form a major pathway for pathogenic proliferation and contamination.

Use of CDD 5000 in Food processing plants

CDD 5000 provides excellent microbiological control in flume waters, packaging operations and process disinfection.

Due to its broad spectrum anti-microbial activity and versatility, chlorine dioxide is the ideal biocide for every bio security programme. CDD 5000 delivers kills against a wide range of microorganisms over shorter periods of contact time. CDD 5000 minimizes corrosion to processing equipment, tanks, lines, etc., as it is a true dissolved gas in water when compared to chlorine. CDD 5000 has become more widely used in the food industry, predominantly in the sanitizing of hard surfaces of equipment, floor drains, and other areas to greatly reduce the microbial load in these areas.

CDD 5000 does not know the limitations and side-effects forthcoming from the use of traditional chemical sanitizers (such as chlorine, iodine and quaternary ammonium compounds) like pH dependency, corrosion, objectionable odor and limited effectiveness against certain pathogens.

CDD 5000 finds application in following areas :

Application in poultry process water.

Application in seafood processing.

Application in meat processing.

Application in fruits & vegetable washing.

Application in dairy products.