

Student Handout- Module Number Three (3) - Principles of Food Plant Sanitation

Principles of Food Plant Sanitation

The term “**sanitation**” is often applied to just the cleaning and sanitizing of equipment and production areas

- Sanitation has much broader applications:
 - includes activities designed to prevent product adulteration
 - includes activities designed to minimize spoilage (economic loss)
 - includes activities designed to prevent contamination with materials that may offend consumers (aesthetic senses)

Thermally processed foods are safe and stable because they are given a final heat treatment designed to destroy or inactivate microorganisms, The hermetically sealed containers protect the foods against microbial recontamination before, during and after the thermal process.

It is **important to remember** that the thermal processes are not designed to destroy an infinite number of microorganisms. Canning operations must include appropriate steps to minimize the number of microorganisms that are present on the food before those foods are placed in the container.

A comprehensive sanitation program is essential for controlling microorganisms in a food processing plant. **Chlorine** and other sanitizing agents are necessary chemicals for this purpose. Sanitizers alone cannot ensure food safety. Effective cleaning, proper operating procedures and practices, and appropriate controls are all important.

Numbers and types of microorganisms in a product depend on whether they are:

- brought into the plant on raw products
- picked up by the food as it passes through or over equipment or by employee contact
- contributed by water during washing, conveying, or preparation
- contained in ingredients added to the product
- in the cooling water for thermally processed containers

Water used for washing, conveying, and preparing food or for cooling must be of good sanitary quality (or rendered so).

Chlorine compounds are still the most widely used sanitizers in the industry.