

ASTA 2009
Annual Meeting and Trade Show

April 26-29, 2009
Loews Ventana Canyon Resort
Tucson, Arizona



Steam Sterilization

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Steam Sterilization

Overview

- Herbs and spices are steam sterilized to protect both the consumer and food manufacturer
 - Reduce microbial load
 - Reduce the incidence of food borne illness
 - Maintain reputation
 - Expand trading
 - Dry Steam

Steam Sterilization

- The most common natural technology for controlling bacterial contamination of spices and herbs.
- Effective against all bacteria including food born pathogens.
- Leaves no residue or by-products.

Steam Sterilization

- Products may be mixed in chamber to reduce costs
- The mechanism of steam process is

Steam Sterilization

- Factors that influence microbial reduction by steam
 - Packaging
 - Form of raw material
- Factors that influence Consumer/Industry acceptance
 - May alter aroma and flavor; loss of volatile oil in some products
 - Can darken the color on some products.

Steam Sterilization

- Suitable for use on a wide range of materials including spices, nuts, herbals and dried tomatoes.
- Suitable for international markets including Australia, Canada, Europe, and Japan.

Steam Sterilization

- Critical control points
 - Product temperature
 - Chamber temperature
 - Duration of time in the chamber
 - Pressure up to 14 psi

Steam Sterilization

- CGMP Compliance for Dietary Supplement
 - Steam sterilization is one of the methods of choice. Under FDA's final regulation on GMP for dietary means to reduce or eliminate the microbial load is not permitted after June 25, 2009.

Steam Sterilization Summary

- Complies with CGMP and CFR, part 179
 - A process to improve food safety
 - Supported by FDA
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Thank you,

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Thank you

