

Preparing a Chlorine Sanitizing Solution

Issued on: [DATE]

Issued by: [NAME]

Version No: [NUMBER] Revised on: [NEW DATE]

Supersedes: [PRIOR NUMBER]

Page **1 of 2**

Objective:	To prepare a chlorine solution for sanitation use.
Personnel Scope:	All staff
Frequency:	After cleaning toilets, faucets, counters, doorknobs, sinks, equipment, tools, and food contact surfaces.
Materials:	 Gloves Apron Eye protection Bucket – labeled "For Sanitizer Solution Only" Potable water * Sodium hypochlorite, non-scented 5.25 - 6% concentration (household chlorine bleach) Measuring spoons – labeled "For Sanitizer Solution Only" Funnel – labeled "For Sanitizer Solution Only" Spray bottle – labeled "For Sanitizer Solution Only" Paper test strips – if sanitizing solution is more than a day old
Procedures:	 Put on gloves, eye protection, apron and any other protective equipment specified on the label for household chlorine bleach while mixing and using sanitizing solution. Always follow all precautionary measures indicated on the product label. Add cool water to the bucket in an amount which corresponds to the ratios below. Place bucket on a flat surface. Determine how much household chlorine bleach (non-scented, 5.25 - 6% sodium hypochlorite) to add based on ratios below: For 1 gallon (3.8 L) of water, add 1 tablespoon of household chlorine bleach to mix a 200 ppm available solution. For 1 quart (0.95 L) of water, add 4 teaspoons of household chlorine bleach to mix a 200 ppm available solution. Carefully measure household chlorine bleach over the bucket and add to water. Place the spray bottle on a flat surface and use the funnel to carefully pour the contents from the bucket into the spray bottle. Apply a fine mist of sanitizing solution onto toilets, faucets, counters, doorknobs, sinks, equipment, tools, and food contact surfaces to disinfect. Chlorine-based sanitizing solutions are light sensitive; prepare a new solution daily or as needed for cleaning. If the solution wasn't prepared the same day, use test strips to ensure effective concentration of the sanitizing solution. Unused sanitizing solution can be diluted with water and disposed of safely in the sink or toilet.
Monitoring:	 Warehouse Manager will ensure adequate supplies are available for preparing the sanitizing solution. Any observed deviation from the above procedures must be reported to a supervisor.
Corrective Action:	Compliance failure will trigger staff retraining.

	Products affected by compliance failure with the above procedures will be discarded.
Verification:	 Compliance failure and corresponding corrective action will be documented by the supervisor on the Employee Training Log.
Record-keeping:	Hard copies of logs will be stored in the office filing cabinet.

^{*} Potable water is defined as meeting the standards for drinking purposes of the State or local authority having jurisdiction, or meeting the standards prescribed by the U.S. Environmental Protection Agency's National Primary Drinking Water Regulations (40 CFR 141).

Created by:

Erin DiCaprio, M.S., Ph.D., Assistant Specialist in Cooperative Extension, Department of Food Science and Technology, UC Davis, UC Division of Agriculture and Natural Resources

Thais Ramos, M.S., Ph.D., Associate Specialist, Department of Food Science and Technology, UC Davis

Gwenaël Engelskirchen, Sustainable Supply Chain Analyst, University of California Sustainable Agriculture Research & Education Program (UC SAREP), UC Division of Agriculture and Natural Resources

Alda Pires, D.V.M., M.P.V.M., Ph.D., Associate Specialist in Cooperative Extension, Department of Population Health and Reproduction, College of Veterinary Medicine, UC Davis, UC Division of Agriculture and Natural Resources

This information is provided by the authors in good faith, but without warranty. It is intended as an educational resource and not as advice tailored to a specific operation or a substitute for actual federal regulations and guidance from FDA or other regulatory agencies. We will not be responsible or liable directly or indirectly for any consequences resulting from use of information provided in this document or resources suggested in this document. The development of this material was supported by the National Institute of Food and Agriculture, U.S. Department of Agriculture, under award number 2018-70020-28862. USDA is an equal opportunity employer and service provider. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the U.S. Department of Agriculture.