

N **Time T** **Teach**

Preparing Chemical Sanitizing Solution

Lesson Participants: Central Warehouse Employees

Type of Lesson: Face-to-face teaching session

Objective: Demonstrate accurate preparation of a chemical solution to properly sanitize food contact surfaces.

Materials Needed:

- Presenter's Script
- Pens or Pencils (one for each employee)
- Example Scenario (one for each employee)
- Copies of continuing education certificate for each participant



Presenter's Script:

Preparing chemical sanitizing solution

Introduction: (2 minutes)

SAY: During the next few minutes we will review how to properly prepare <insert the proper word to describe the chemical used in your facility – chlorine bleach or quaternary ammonium/QUATS> solution to use for wipe-on or spray-on sanitizing for food contact surfaces. After this session you will be able to identify and demonstrate how to accurately mix the chemical sanitizer in the correct proportions. By following proper cleaning and sanitizing procedures, microorganisms can be reduced to a safe level.

Steps to Properly mixing a chemical sanitizing solution: (8 minutes)

DO: Show the participants the container of chemical and the test strips used in your facility. Demonstrate the proper mixing and testing of the solution as you explain the steps below.

SAY: We use this <chlorine bleach OR QUATS – insert the correct chemical name for your facility> to mix with water to sanitize items that cannot be sanitized in a three compartment sink or the dishwasher. When using a chemical sanitizer, you should follow these procedures:

- Start by adding a very small amount of the <chlorine bleach OR QUATS – insert the correct chemical name for your facility> to the water in the bucket or bottle and mix to disperse evenly. Never mix the chemical with any other cleaning product – only water! Soap and other organic materials make it ineffective at killing germs.
- Test the solution with the correct test strips for the chemical used. Strips to test chlorine bleach are usually white and turn light purple. Strips to test QUATS are usually orange and turn light green. Dip the test strip into the prepared solution for about 10 seconds to allow time for the strip to change colors. Compare the color of the strip to the colors on the test strip container.
- The sanitizer must be mixed at the proper concentration. QUATS solutions must be 200 ppm and Chlorine solutions must be 50 ppm. If the solution tests too weak, gradually add more chemical and re-test until the solution is the correct strength. If the solution is too strong, gradually add more water and re-test until the solution is the correct strength.
- If it is too weak, the solution will not kill the germs. If the solution is too strong it will leave a chemical residue that can contaminate the food and you.
- Use the properly mixed sanitizing solution to wipe or spray onto cleaned and rinsed food contact surfaces such as table tops or equipment that cannot be sanitized in a sink or dishwasher. Non-food contact surfaces must be cleaned but do not have to be sanitized.
- All washed, rinsed and sanitized items must be allowed to air dry. Do not stack items until they are dry. Remember drying cloths cannot be used to dry items because they can spread bacteria.

- The strength of the sanitizing solution will change over time. It is important to check the sanitizing solution frequently to make sure it stays clean and tests at the proper strength. Use the test strip. Once the solution becomes too weak, discard it and prepare a new solution. If the sanitizing solution becomes mixed with soap, detergent, or food particles, prepare a new solution.

Example Scenario: (5 minutes)

DO: Pass out example scenario and pens or pencils.

SAY: Now we will go over an example scenario. I will pass out the handout. Read the directions and complete the scenario. We will go over it once everyone is finished.

NOTE to the Instructor: The answers to the Example Scenario are below for your reference when reviewing the activity with the participants:

- T** Proper sanitizing procedures reduce microorganisms to a safe level.
- F** Test the solution every third time you prepare it.
- F** Wipe the surfaces with a cloth to dry after sanitizing.
- F** You can use the same test strips for all types of chemical solutions.
- T** The strength of the solution varies according to the chemical used.
- F** Mixing a solution stronger than recommended kills more microorganisms.
- F** Chemical sanitizers may be mixed with detergent or other cleaning products.

Continuing Education Documentation:

DO: Complete the Continuing Education report at the end of this lesson, obtain participant signatures, and file in *HACCP Part 4: Continuing Education and Professional Development*.

Provide each participant with a copy of the certificate of completion attached to this lesson. Remind participants to update their professional development log as required by the School Nutrition Administrator so that compliance with the USDA Professional Standards Rule is adequately documented.



Example Scenario

True or False?

Directions: Determine if the statements are true or false and circle the correct letter.

- T F Proper sanitizing procedures reduce microorganisms to a safe level.
- T F Test the solution every third time you prepare it.
- T F Wipe the surfaces with a cloth to dry after sanitizing.
- T F You can use the same test strips for all types of chemical solutions.
- T F The strength of the solution varies according to the chemical used.
- T F Mixing a solution stronger than recommended kills more microorganisms.
- T F Chemical sanitizers may be mixed with detergent or other cleaning products.

FOOD SAFETY AND HACCP CONTINUING EDUCATION REPORT

(Complete this report and File in HACCP Section: Continuing Education and Professional Development)

LESSON TITLE: **No Time To Teach: Preparing Chemical Sanitizing Solution**

DATE: _____

LOCATION: _____

INSTRUCTOR: _____

Lesson Agenda/Outline is attached: **Yes** **No**

PARTICIPANT NAME	SCHOOL

Certificate of Participation

This is to certify that

completed the

School Nutrition Services

No Time to Teach Lesson:

**Preparing Chemical Sanitizing
Solution**

providing $\frac{1}{4}$ hour of continuing education
credit for the School Nutrition Area of

**Food Safety and HACCP: 2620 Food Safety-
General**

Signature of Presenter

Date