

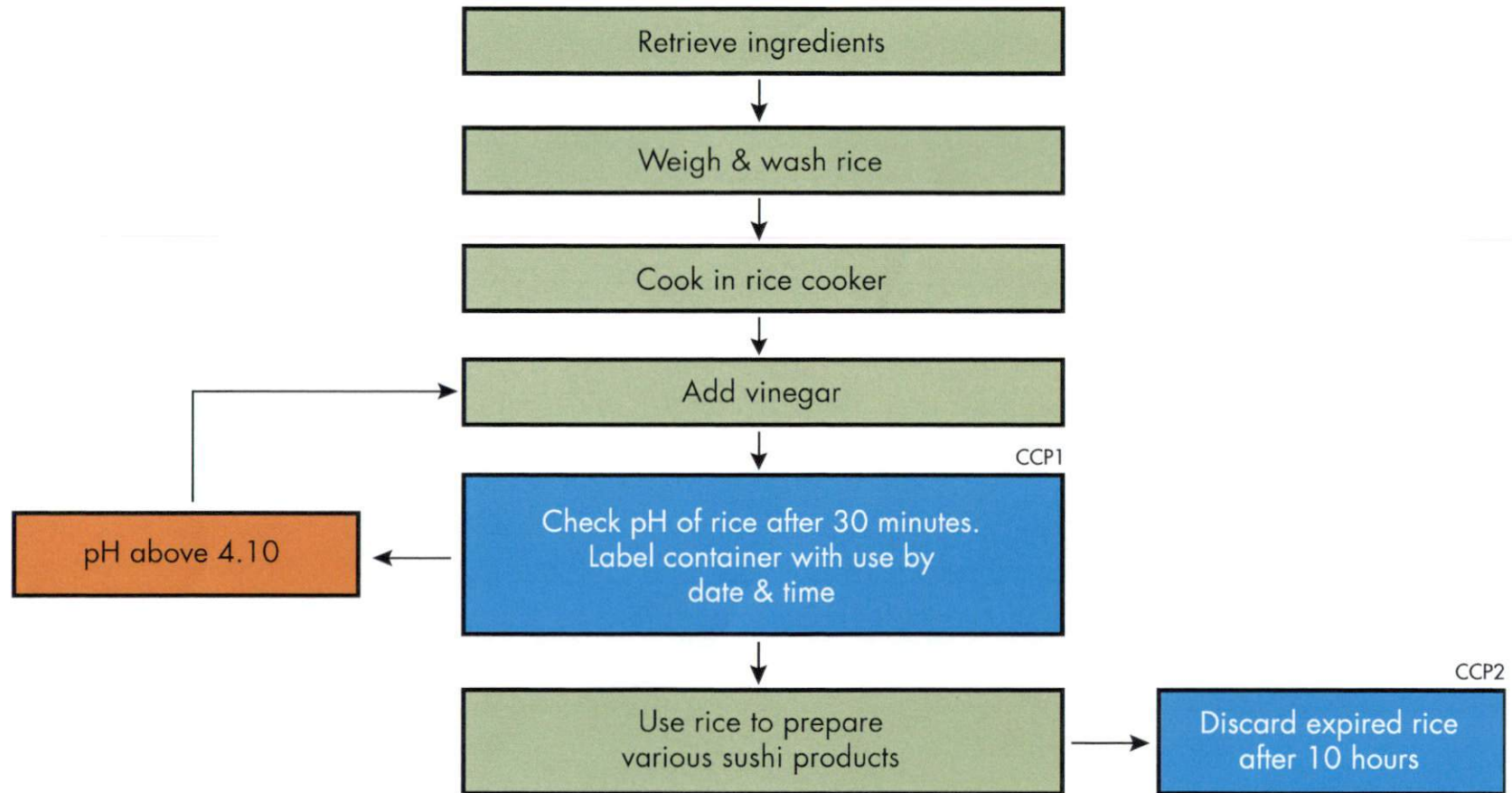


Sushi Rice HACCP - pH Controlled

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pH Controlled Rice Flow Diagram



Hazard Analysis Worksheet

Product: pH Controlled White Sushi Rice

Ingredient / Process Step	Potential hazards Introduced, controlled, or enhanced at this step (B) Biological	Is there a severe hazard likely to occur? (N/Y)	Justification for decision	Question 1 Do preventative measures exist for identified hazards? What?	Question 2 Does this step eliminate or reduce the likely occurrence of hazards to an acceptable level? (Y/N)	Question 3 Could identified hazard(s) occur in the excess of acceptable levels or could these increase to unacceptable levels?	Question 4 Will a subsequent step eliminate hazard(s) or reduce the likely occurrence to an acceptable level?	Is this a CCP?
Receive ingredients	B - none C - chemical contamination (cleaners/sanitizers) P - foreign objects (stones, dirt, wood, insects, broken glass, metal fragments, etc.)	B - no C - no P - no	B - All PHF/TCS products are received solidly frozen in sealed packages. SSOP and employee training address proper handling & storage. C - SSOP covers use of approved chemicals only and proper storage away from food area to prevent contamination. P - Product is kept in original packaging.					
Weigh and wash rice	B - pathogen growth, contamination (<i>Bacillus cereus</i> , <i>Clostridium botulinum</i> , <i>Listeria monocytogenes</i> , <i>Staphylococcus aureus</i> , <i>Shigella</i> , Hepatitis A, Norwalk) C - chemical contamination (cleaners/sanitizers) P - foreign objects (glass, hair, metal, jewelry, stones, dirt, etc.)	B - no C - no P - no	B - SSOP calls for proper personal hygiene, and ill employees are not permitted to food handling. Employee training and SSOP cover proper product handling. C - SSOP cover use of approved chemicals only and proper storage away from food area to prevent contamination. P - Glass policy and employee vigilance.					

Cook in rice cooker	<p>B - pathogen growth, contamination (<i>Bacillus cereus</i>, <i>Clostridium botulinum</i>, <i>Listeria monocytogenes</i>, <i>Staphylococcus aureus</i>, <i>Shigella</i>, <i>Hepatitis A</i>, <i>Norwalk</i>)</p> <p>C - chemical contamination (cleaners/sanitizers)</p> <p>P - foreign objects (glass, hair, metal, jewelry, stones, dirt, etc.)</p>	<p>B - no C - no P - no</p>	<p>B - Cooking the rice at boiling point will reduce all vegetative pathogens to a safe level, SSOP calls for proper personal hygiene, and ill employees are not permitted to food handling. Employee training and SSOP covers proper product cooking instructions.</p> <p>C - SSOP covers use of approved chemicals for cleaning and sanitizing for contact surfaces / equipment. SSOP covers proper storage away from food area to prevent contamination.</p> <p>P - Glass policy and employee vigilance.</p>					
Add vinegar	<p>B - pathogen growth, contamination (<i>Listeria monocytogenes</i>, <i>Staphylococcus aureus</i>, <i>Shigella</i>, <i>Hepatitis A</i>, <i>Norwalk</i>)</p> <p>C - chemical contamination (cleaners/sanitizers)</p> <p>P - foreign objects (glass, hair, metal, jewelry, stones, dirt, etc.)</p>	<p>B - no C - no P - no</p>	<p>B - SSOP calls for proper personal hygiene, and ill employees are not permitted to food handling. Employee training and SSOP cover proper product handling.</p> <p>C - SSOP covers use of approved chemicals only and proper storage away from food area to prevent contamination.</p> <p>P - Glass policy and employee vigilance.</p>					
<p>Check pH of the rice after 30 minutes</p> <p>Label the container with the use by date and time</p>	<p>B - pathogen growth (<i>Bacillus cereus</i>, <i>Clostridium botulinum</i>, <i>Listeria monocytogenes</i>, <i>Staphylococcus aureus</i>, <i>Shigella</i>, <i>Hepatitis A</i>, <i>Norwalk</i>)</p> <p>C - chemical contamination (cleaners/sanitizers)</p> <p>P - foreign objects (glass, hair, metal, jewelry, stones, dirt, etc.)</p>	<p>B - yes C - no P - no</p>	<p>B - After 30 minutes has elapsed, check the pH, The pH should be between 3.3-4.10. If the correct amount of vinegar is not blended properly into the cooking rice, the pH may not reach 4.10 or below. In this case, blend in an additional amount of vinegar and wait 30 minutes again. Retake the pH. The final pH must reach 4.10 or lower to control <i>Bacillus cereus</i>. <i>Clostridium botulinum</i> can be controlled with a pH below 4.6. If the pH is below 3.30, the rice must be discarded due to quality purposes. The rice may be used for 10 hours from time of acidification.</p>	B - yes	B - yes			CCP 1

			<p>SSOP calls for proper personal hygiene, and ill employees are not permitted to food handling. Employee training and SSOP covers proper product handling.</p> <p>C - SSOP covers use of only approved chemicals for cleaning/sanitizing food contact surfaces/equipment and proper storage away from food to prevent contamination.</p> <p>P - Glass policy and employee vigilance.</p>					
Use rice to prepare various sushi products	<p>B - pathogen growth, contamination (<i>Bacillus cereus</i>, <i>Clostridium botulinum</i>, <i>Listeria monocytogenes</i>, <i>Staphylococcus aureus</i>, <i>Shigella</i>, <i>Hepatitis A</i>, <i>Norwalk</i>)</p> <p>C - chemical contamination (cleaners/sanitizers)</p> <p>P - foreign objects (glass, hair, metal, jewelry, stones, dirt, etc.)</p>	<p>B - no</p> <p>C - no</p> <p>P - no</p>	<p>B - SSOP calls for proper personal hygiene, and ill employees are not permitted to food handling. Employee training and SSOP cover proper product handling.</p> <p>C - SSOP covers use of approved chemicals only and proper storage away from food area to prevent contamination.</p> <p>P - Glass policy and employee vigilance.</p>					
Discard expired or unused rice	<p>B - pathogen growth (<i>Listeria monocytogenes</i>, <i>Staphylococcus aureus</i>, <i>Shigella</i>, <i>Hepatitis A</i>, <i>Norwalk</i>)</p> <p>C - chemical contamination (cleaners/sanitizers)</p> <p>P - foreign objects (glass, hair, metal, jewelry, stones, dirt, etc.)</p>	<p>B - yes</p> <p>C - no</p> <p>P - no</p>	<p>B - At an increased time, pathogen growth may occur, any leftover rice is discarded after 10 hours from time of acidification, or at the end of the day, whichever comes first.</p> <p>C - SSOP covers use of only approved chemicals for cleaning/sanitizing food contact surfaces/equipment and proper storage away from food to prevent contamination.</p> <p>P - Glass policy and employee vigilance.</p>	B - yes	B - yes			CCP 2

HACCP Plan Form

Product: pH Controlled White Sushi Rice

CCP	Significant Hazard	Critical Limits for each Control Measure	Critical Limits	Monitoring				Corrective Action	Verification	Record Keeping
				What	How	Frequency	Who			
CCP 1 - Check pH of rice	B - pathogen growth (<i>Bacillus cereus</i> , <i>Clostridium botulinum</i>), contamination (<i>Listeria monocytogenes</i> , <i>Staphylococcus aureus</i> , <i>Shigella</i> Hepatitis A, Norwalk)	B - pH level between 3.30-4.10 per AFC SSOP	pH 4.10 or lower	pH level of rice 30 min. after vinegar is applied	Calibrated pH meter	Every batch	Trained sushi chef or employee	Add additional vinegar to the rice and thoroughly mix the rice again to ensure even distribution of the vinegar. Recheck the pH to ensure it is 4.10 or below. For quality purposes, the rice must be discarded if the pH is below 3.30.	The pH meter is calibrated daily. Verification of pH meter calibration is recorded Equipment Calibration section of the Daily Log. The pH of each batch of rice taken is recorded on the pH section of the Daily Log. Any corrective action required will be recorded on the pH log.	Equipment Calibration Log pH log
CCP 2 - Discard unused or expired rice	B - pathogen growth (<i>Bacillus cereus</i> , <i>Clostridium botulinum</i>), contaminations (<i>Listeria monocytogenes</i> , <i>Staphylococcus aureus</i> , <i>Shigella</i> Hepatitis A, Norwalk)	B - 10 hours from time of acidification, or at the end of the day, whichever comes first	10 hours or at the end of the day, whichever comes first	Time for sushi rice	Use by date and time is labeled on the container	Every batch	Trained sushi chef or employee	Rice is discarded after 10 hours or at the end of the day, whichever comes first.	Daily observation and documentation ensures that critical limits have not been exceeded. Time rice is discarded is recorded on the pH log.	pH log



pH Controlled White Sushi Rice HACCP Flow Diagram

