Single Hazard Special Process HACCP Template for

Sushi Rice Acidification

Regulatory Authority Jurisdiction NAME (fill in form)

Date Submitted _____ Date Approved _____ Valid until _____

A. General Information

This is a placeholder for the general information needed: e.g. operator name, location, Person-In-Charge(PIC) name, contact information, etc.
fill in form

B. Categorization – Recipe(s)

Categorization: **Template for Sushi Rice Acidification**
FDA Food Code Section 3-502.11: "*A FOOD ESTABLISHMENT shall obtain a VARIANCE from the REGULATORY AUTHORITY (RA) as specified in §8-103.10 and under* §8-103.*11 before: (C)Using FOOD ADDITIVES or adding components such as vinegar: (2) To render a FOOD so that it is not TIME/TEMPERATURE CONTROL OF SAFETY FOOD."* Thus, allowing the food to be stored at temperature between 41°F and 135°F for more than 4 hours.

Recipe: *Attach the recipe for your sushi rice to this document and a certified lab analysis of that recipes pH. Attach additional recipes/lab analyses for each different sushi rice recipe.*

Are there any buyer specifications (supply controls) or special equipment required/recommended?

___ pH meter with 0.1 pH accuracy (brand and model _____)
___ pH 4.0 or 4.01 calibration buffer (brand _____)
___ vinegar (percent _____)

C. Flow Diagram-Chart

[Instructions] – Add each step in your sushi rice acidification process in the following table starting in box 1. The first step should be receiving ingredients and the last step consumption or sale of the sushi rice.

1 Receiving Ingredients and any other materials	**2**	**3**
4	**5**	**6**
7	**8**	**9**
10	**11**	**12**
13	**14**	**Last-** consumption (foodservice) or sale to consumer (retail)

The step in which vinegar is added to the rice for acidification is number ____. This is the critical control point for this **Single Hazard Special Process HACCP Template**. Mark that step above with the designation "CCP" to indicate that as a Critical Control Point (CCP)

C. 1. Hazard.

The main hazard in sushi rice held at room temperature is the presence of and potential growth of *Bacillus cereus (b. cereus)*. *B. cereus* can cause vomiting and diarrhea if permitted to grow to high numbers in the rice. B. cereus is considered a hazard in sushi rice for several reasons: 1. It is a spore forming foodborne illness bacteria; 2. Spores are often found in rice and grains; 3. Spores survive the rice cooking step; 4. After cooling, the spores can become growing bacteria producing toxins that cause the illnesses; 5. Sushi rice is typically kept warm in the temperature danger zone of 41-135°F; 6. Outbreaks of *B. cereus* foodborne illness have occurred in sushi rice.

C. 2. Control.

The main control that prevents the growth of *B. cereus* is acidification. *B. cereus* does not grow at pH levels of 4.3 or below*. Therefore, vinegar is typically mixed well into sushi rice to reduce the pH of the rice to 4.3 or below. This control is effective only when the pH of the rice is

correctly monitored by using a pH meter. Proper execution of the pH measurement as well as verification that the pH meter is accurate or calibrated ensures this control measure is effective the sushi rice is safe.

* Reference: US FDA Seafood HACCP Guide. Appendix 4. Page 420. April 2011 www.fda.gov

D. CCP Summary

D.1. Critical Limit(s)

The rice must be acidified using vinegar (any variety) to a pH of 4.3 or less.

D.2. Monitoring

Each batch of acidified rice must be measured for pH as follows. Prepare rice according to the approved directions. Mix exceptionally well. Prepare and calibrate the pH meter according to the manufacturer's directions. Record the calibration of the pH meter in the log. Remove 100 grams (or ___ cup) acidified rice to a large plastic zip style baggie. Add 900 ml distilled water (tap water is not suitable). Seal the plastic bag and hand-massage the rice-water mixture for 1 minute. Insert the calibrated pH meter probe into the rice-water. Note the pH measurement. If the pH is at or below 4.3 record that pH in the log. Clean/rinse the pH probe as recommended by the manufacture before further use or storage.

D.3. Corrective Action

If the pH of the measurement is greater than (>) 4.3; then repeat the measurement with a new sample. If that is greater than (>) 4.3; add more vinegar to the acidified rice. Mix well. And repeat the pH measurement. Repeat this corrective action until the pH is at or below 4.3. Note the corrective actions applied in the log.

D.4. Verification

The PIC (person in charge) is responsible for reviewing and signing the sushi rice acidification log daily. The PIC should also observe employees for performing the pH measurement and recording required data periodically. Make those observation notes on the pH log.

D.5. Validation

not required

D.6. Record

Provide a blank pH verification log for monitoring each batch of sushi rice as part of this document. A record of pH meter calibration, pH measurements, corrective actions, and PIC verifications must be kept on this single form.

Note: Once records are created they MUST be kept for 6 months and made available to the Regulatory Authority upon inspection request.

E. Training

Each employee who will have responsibility for making and measuring curing salts is REQUIRED to receive training such that they understand the hazards and controls and that they may perform their role in this **Single Hazard Special Process HACCP Template**. The PIC must review sections C and D with employees and complete a hands-on training for section D. Provide a training log form as an attachment to this **Single Hazard Special Process HACCP Template**. The training sessions must be recorded in this log, and must include date, employees present, and instructor. Maintain the training log as an additional appendix to this **Single Hazard Special Process HACCP Template**.

F. Standard operating procedures

For the Regulatory Authority to list. Are there any SOPs required or recommended that will make this **Single Hazard Special Process HACCP Template** safer? I.e: cleaning and sanitizing food contact surfaces, personal hygiene, hand washing, eliminating bare hand contact, proper chemical/nitrite storage

Signature

_____ *print name*, as the person in charge of _____, do certify that the above food safety plan will be fully implemented as written above.

_____ Signature _____ Date

___ *= operator fill in places.*
--Attach a blank copy of pH log and a blank copy of a training log to this ***Single Hazard*** **Special Processes HACCP Template**.