

Goal

To make acidified sushi rice (that has a pH of 4.6 or below)

To make sure that non-acidified sushi is stored for no more than 4 hours above 5°C

To enable sushi rice and sushi to be held at temperatures between 5°C and 15°C for a period of up to eight hours for nigiri pieces, and up to 12 hours for noris.

The Act requires:

- Food must be processed and handled in ways that minimise the contamination or deterioration of food.
- There must be procedures in place that prevent, eliminate or reduce hazards during the production, processing and handling of food.
- Food must be safe and suitable.

Why?

- Adding vinegar solution to rice makes the rice acidic
- Harmful microbes cannot grow well in acidic food (pH 4.6 or below).

How this is done

This procedure provides for requirements for the safe preparation of sushi (nigiri pieces and nori rolls) using sushi rice.

It does not replace the need to follow other relevant procedures in the Food Control Plan e.g. *Displaying and self service*.

Sushi Rice (not acidified)

- This procedure includes sushi made with brown rice*.
- If not being acidified cooked rice must be cooled from 60°C to 21°C within 2 hours and to 5°C within another 4 hours.
- Once assembled Sushi and Onigiri made with non-acidified rice must not be kept above 5°C for more than 4 hours – see *Display and self service*.

*Note: Brown rice cannot be acidified effectively because of the hard surface coating on the grain which limits penetration of acid solutions.

Sushi Rice (acidified)

- This procedure does not cover sushi made with brown rice.
- The pH of the sushi rice must be at a pH of 4.6 or lower. To do this a vinegar solution must be added to the rice as soon as it is cooked.
- To measure the pH, mix one part clean water with three parts acidified rice (e.g. ¼ cup of clean water mixed with ¾ cup acidified rice). pH is measured using:
 - pH strip
 - pH paper
 - calibrated pH meter

When you have an established procedure test its accuracy with the next 3 batches. If you can demonstrate that you are consistently getting a pH of 4.6 or below then you only need to check the pH of a batch every two weeks.

- Acidified rice must be cooled from 60°C to 21°C within 2 hours, and to 15°C or less within another 4 hours.
- You must store acidified rice between 5°C - 15°C for no more than 8 hours after which it must be discarded.

How this is done

- Acidified rice must be protected from contamination when not being used to make sushi.

Leftover rice must not be mixed with a newly prepared batch of rice.

Preparing sushi

You must ensure all ingredients are clean and free from contamination:

- thoroughly wash fruit and vegetable ingredients before use;
- separate raw and ready-to-eat ingredients to minimise cross-contamination.
- All utensils used must be clean and if necessary sanitised.

Display

Sushi made with acidified rice

Nigiri pieces

Nigiri pieces, including the acidified rice used to make them, must be stored between 5°C and 15°C for no more than a combined total of 8 hours after which they must be thrown away. For example:

- Nigiri pieces that are assembled straight after the rice has been acidified may be kept for no more than 8 hours at between 5°C and 15°C: or
- the acidified rice has been kept between 5°C and 15°C for 2 hours before the Nigiri pieces are assembled. Once assembled, the pieces may be kept for up to 6 hours between 5°C and 15°C.

Nori rolls

Nori rolls, including the acidified rice used to make them, must be stored between 5°C and 15°C for no more than a combined total of 12 hours after which they must be thrown away. For example:

- Nori rolls that are assembled straight after the rice has been acidified may be kept for no more than 12 hours at between 5°C and 15°C.
- If the acidified rice has been kept between 5°C and 15°C for 6 hours before nori rolls are assembled the nori rolls may be kept for up to 6 hours between 5°C and 15°C.



'Nigiri' is a piece of raw or cooked ingredient placed on top of sushi rice.

'Nori' is sushi rice, raw or cooked seafood, vegetables or other ingredients rolled in seaweed sheets.

'Onigiri' is sushi rice (not acidified) and shaped into a triangle or oval shape. Onigiri can be plain or contain a filling in the middle.

What if there is a problem?

If the pH of the rice is above 4.6, the volume of vinegar solution being added must be increased. You must then re-test the pH of the rice until the correct pH is reached.

Keep a note of the amount of vinegar solution required to achieve the correct pH in one kilogram of rice.

Make sure everyone who prepares the sushi rice knows the correct amount to use each time.

Re-train staff in correct food handling procedures if necessary.

You must throw away any sushi products, or their ingredients, that may have been contaminated through poor handling.

You must write down what you did in the daily page of the Diary.

Write it down

Write down the procedure you've established to get a consistent pH of 4.6 or below.

Write down the pH of each batch in the Sushi Rice pH record the pH until it is clear you are getting a consistent result (6 batches)

Record your results every two weeks or more frequently if there are any problems.