Guide for EHOs and food businesses

Clean-up guidance for *Listeria monocytogenes* detection in food

Contents

Clean-up guidance

This purpose of this guidance is to assist environmental health officers and food businesses in the appropriate course of action to be taken following *Listeria monocytogenes* (Lm) bacterial contamination in a food sample, and to ensure that food businesses can effectively clean and sanitise both the premises and their equipment to reduce the risk of further contamination.

Lm is recognised world-wide as a significant cause of foodborne illness. Unlike most bacteria that can cause food poisoning, Lm continues to grow slowly at refrigerated temperatures (50 °C and lower), and will grow more rapidly at higher temperatures. Its presence in foods can be a potentially serious health risk to consumers, especially those vulnerable to illness such as the elderly, pregnant women, newborn babies and anyone whose immune system has been weakened by disease or medication.

If Lm is found in a food, it is necessary to complete a thorough clean and sanitation program to prevent the organism becoming resident in the premises, which may lead to contamination of further batches of food.

How to clean and sanitise

Lm is killed through sanitising. This may be achieved by a number of methods, such as adequate heat or through the use of sanitisers which contain chlorine (such as bleach) or quaternary ammonia compounds. Sanitisers are most effective when used on clean surfaces and equipment, so effective cleaning is essential prior to application of a sanitiser. This document focusses on the use of chlorine as a sanitiser because it is readily available and known to be effective in killing Lm.

Before cleaning

- Plan the order in which cleaning will be undertaken so that there is no risk of re-contaminating previously cleaned surfaces and equipment.
- Remove all food and packages from the area before cleaning.
- Discard any food or material that is suspected of being contaminated. If in doubt, it is recommended to adopt a precautionary approach and discard.
- Inspect the premises for any structural issues and chipped or cracked equipment. Any issues that are found should be addressed to minimise areas where Lm can persist and grow. Pay particular attention to areas that are persistently damp.

VICTORIA State Government | Health and Human Services

Cleaning

- Remove all fatty and oily residues from equipment, utensils and surfaces by cleaning thoroughly with hot water and detergent (such as dishwashing liquid), and then rinse.
- Use disposable cleaning cloths, sponges and scourers rather than using washable cloths, rags or towels which can spread the contamination. Dispose of and renew cloths and scourers regularly throughout the cleaning procedure.
- Clean all equipment and surfaces that come into contact with food. This includes utensils, crockery and cutlery. Equipment, including meat slicers, food processors and blenders need to be completely dismantled before cleaning.
- Clean other surfaces which may indirectly come into contact with food or may be contaminated. Examples include aprons, walls, floors, light switches, doors, door handles, refrigerators, refrigerator door handles, seals, ledges and shelving. Doorway fly-control strips, sinks and drains should also be cleaned.
- Avoid high pressure hoses as they can distribute bacteria via aerosols, potentially re-contaminating cleaned and sanitised surfaces. Water should instead be applied in such a way that you avoid splashing, such as through pouring or the use of a gentle flooding technique.

Sanitising

- After cleaning, all equipment and surfaces must be sanitised to kill any bacteria present. Proper sanitising needs the right concentration of bleach and enough contact time.
- Ensure that protective equipment is worn (apron, eye protection, gloves and skin coverings) when mixing bleach to make sanitising solutions. It is suggested that chlorine be added to water, rather than water to chlorine to avoid splashing onto clothes or skin.
- For small items that will fit into a sink such as chopping boards, utensils and food processor components, soak in a solution containing 50 ppm (parts per million) available chlorine in warm, not hot (50 °C) water for at least five minutes. See Table 1, below, for preparation of bleach sanitising solutions.
- After the appropriate contact time remove items from the solution and allow to air dry in a clean, dry area.
- Use freshly made sanitising solution each time equipment is soaked as the chlorine level diminishes over time.
- For items that will not fit into a sink such as food contact surfaces, equipment, benches, floors, walls, hand basins, sinks and large containers, apply a solution containing 100 ppm available chlorine for at least five minutes. If using a different type of sanitiser follow the manufacturer's instructions.
- Follow the manufacturer's instructions for whether to rinse the sanitiser off or not.
- Do not allow water to collect on food contact surfaces, floors or in coolrooms or fridges because Lm can survive and grow in this water after the sanitiser has dissipated.

Once an area has been thoroughly cleaned and sanitised, the business should ensure an effective daily cleaning and sanitising schedule is in place to reduce the risk of future contamination and bacterial growth. Such programs must be reflected in the Food Safety Program of the business.

Table 1: Preparation of bleach sanitising solutions

Amount of water	Amount of bleach needed to make 50 ppm solution (for items such as slicers, chopping boards)	Amount of bleach needed to make 100 ppm solution (for items such as benches, floors, walls.
Using household bleach (approximately 4% available chlorine)		
5 litres	6.5 ml (approximately 1 $^1/_2$ teaspoons)	12.5 ml (2 $^1/_2$ teaspoons)
10 litres	12.5 ml (2 $^1/_2$ teaspoons)	25 ml (5 teaspoons)
50 litres	65 ml (1/4 cup)	125 ml (1/2 cup)

Amount of water	Amount of bleach needed to make 50 ppm solution (for items such as slicers, chopping boards)	Amount of bleach needed to make 100 ppm solution (for items such as benches, floors, walls.
Using commercial grade bleach (approximately 10% available chlorine)		
5 litres	2.5 ml (1/2 teaspoon)	5 ml (1 teaspoon)
10 litres	5 ml (1 teaspoon)	10 ml (2 teaspoons)
50 litres	25 ml (5 teaspoons)	50 ml (10 teaspoons)

To receive this publication in an accessible format phone 1300 364 352, using the National Relay Service 13 36 77 if required, or email foodsafety@dhhs.vic.gov.au

Authorised and published by the Victorian Government, 1 Treasury Place, Melbourne.

Available at www2.health.vic.gov.au/public-health/food-safety/food-safety-laws-local-government-and-auditors/environmental-health-officers-updates