

Microbial Guidelines for Ready-to-Eat Foods

Test	Microbiological Guideline (CFU per gram unless otherwise stated)			
	Satisfactory	Marginal	Unsatisfactory	Potentially Hazardous
Standard Plate Count				
Category 1	< 10 ⁴	< 10 ⁵	≥ 10 ⁵	
Category 2	< 10 ⁶	< 10 ⁷	≥ 10 ⁷	
Category 3	N/A	N/A	N/A	
Indicator Organisms				
<i>Enterobacteriaceae</i> ^(a)	< 100	< 10 ⁴	≥ 10 ⁴	
<i>Escherichia coli</i>	< 10	< 100	≥ 100	See VTEC below
Pathogens				
<i>Salmonella spp.</i>	Not detected in 25g			Detected
<i>Campylobacter spp.</i>	Not detected in 25g			Detected
<i>E. coli</i> O157:H7 & VTEC	Not detected in 25g			Detected
<i>Listeria monocytogenes</i>	Not detected in 25g	Detected but < 100 ^(c)		≥ 100 ^(d)
<i>V. parahaemolyticus</i> ^(b)	Not detected in 25g	Detected but < 100	< 1000	≥ 1000
<i>Clostridium perfringens</i>	< 10*	< 10 ³	< 10 ⁴	≥ 10 ⁴
Coagulase positive staphylococci	< 50*	< 10 ³	< 10 ⁴	≥ 10 ⁴
<i>Bacillus cereus</i> and other pathogenic <i>Bacillus spp.</i>	< 50*	< 10 ³	< 10 ⁴	≥ 10 ⁴

* Below detection limit. Actual value varies with the laboratory technique used.

N/A – not applicable because the food, or a component of it, naturally contains high numbers of bacteria (i.e. raw fruits or vegetables, fermented or cultured foods, etc.).

- Not applicable for fresh fruit, raw vegetables or foods containing these products.
- Should not be present in seafood that has been cooked. Products intended for consumption in their raw form should contain less than 100 CFU/gram. Potentially hazardous levels of *Vibrio parahaemolyticus* relates to Kanagawa-positive strains.
- Foods intended to have a prolonged shelf-life should contain no *L. monocytogenes* (i.e. cheese, processed deli meats, etc.).
- Detection of *L. monocytogenes* is also considered to be potentially hazardous if the food is to be served to “high risk” populations, such as the young, the elderly, or the immuno-compromised (i.e. baby food, hospital food, and food served at seniors centers).

Foods shall not contain:

- ◆ any other pathogenic bacteria, viruses, or microorganisms which include, but are not limited to, *V. cholerae*, *Shigella spp*, *Aeromonas*, Rotavirus, Norovirus, *Yersinia*, *Cryptosporidium spp*, and *Giardia spp.*;
- ◆ contaminants, mycotoxins, harmful preservatives, antibiotics, or any other toxic substance;
- ◆ evidence of rodent or insect contamination, visible mould, or foreign material of any kind.

Food Classification Reference Guide

The following list is intended to provide examples of various foods and their respective classification in terms of the “Microbiological Guide for Ready-To-Eat Foods” . This list is not intended to be exhaustive, but to provide guidance. Environmental Health Officers are required to assess each food on the basis of how it was prepared, what components it is comprised of and what (if any) handling and/or processing occurred after cooking and prior to distribution to the consumer.

Category 1 Foods

- Soups
- Gravy
- Boiled potatoes and other cooked vegetables
- Bread, buns
- Cooked meat, poultry, seafood (served hot)
- Spaghetti and meat sauce
- BBQ pork buns and other Chinese-style bakery products unless portioned after cooking
- Sausage rolls, meat pies, quiche

Category 2 Foods

- Sandwiches containing no Category 3 products such as peanut butter and jam
- Ready-to-eat hot dogs
- Burgers containing no Category 3 products

Category 3 Foods

- Fresh fruit
- Raw vegetables
- Salad rolls (rice paper stuffed with noodles, meat or seafood, raw carrot and bean sprouts)
- Pitas
- Burgers with lettuce, tomato, raw onions, etc.
- Deli meats
- Cheese, yogurt
- Potato salad, pasta salad, coleslaw

For more information, please contact your nearest Environmental Public Health office.

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