Standard 1.6.1

Microbiological Limits for Food

Purpose

This Standard lists the maximum permissible levels of foodborne microorganisms that pose a risk to human health in nominated foods, or classes of foods. This Standard includes mandatory sampling plans, used to sample lots or consignments of nominated foods or classes of foods, and the criteria for determining when a lot or consignment of food poses a risk to human health and therefore should not be offered for sale, or further used in the preparation of food for sale. The microbiological standards included in the Schedule to this Standard are applicable to the foods listed in the Schedule.

Table of Provisions

Clauses

1 Interpretation

In this Standard -

n means the minimum number of sample units which must be examined from a lot of food as specified in Column 3 of the Schedule in this Standard.

c means the maximum allowable number of defective sample units as specified in Column 4 of the Schedule.

m means the acceptable microbiological level in a sample unit as specified in Column 5 of the Schedule.

M means the level specified in Column 6 of the Schedule, when exceeded in one or more samples would cause the lot to be rejected.

defective sample unit means a sample unit in which a microorganism is detected in a sample unit of a food at a level greater than m.

food means a food product listed in Column 1 of the Schedule.

microorganism means a microbiological agent listed in Column 2 of the Schedule.

SPC means standard plate count at 30°C with an incubation time of 72 hours.

2 Application

(1) The foods listed in column 1 of the Schedule in this Standard must, subject to subclause (2) and subclause (3), comply with the microbiological limits set in relation to that food in the Schedule.

(2) The Standard Plate Count (SPC) in powdered infant formula with added lactic acid producing cultures must not exceed the microbiological limits set in the Schedule, prior to the addition of the lactic acid cultures to the food.

(3) Unpasteurised milk which is not for retail sale, is not required to comply with the microbiological limits set out in the Schedule to this Standard.

3 Sampling of foods for microbiological analysis

(1) At the point of sampling, a lot of a food must have taken from it, n sample units as specified in Column 3 of the Schedule in this Standard, unless specified otherwise in this Standard.

(2) An authorised officer who takes or otherwise obtains a sample of food for the purpose of submitting it for microbiological analysis -

(a) shall not divide that sample into separate parts; and
(b) where the sample consists of one or more than one sealed package of a kind ordinarily sold by retail, must submit for such analysis that sample in that package or those packages in an unopened and intact condition.

(3) Where an authorised officer takes or otherwise obtains a sample of food which is the subject of a suspected food poisoning incident or consumer complaint, the results of an analysis conducted on such food are not invalid by reason that fewer sample units than prescribed have been analysed or that a sample unit analysed is smaller than prescribed.

4 Prescribed methods of analysis

(1) Subject to subclause (2) and subclause (3), the Australian/New Zealand Standard methods for Food Microbiology AS/NZS 1766, as of the date of commencement of this Standard, must be used to determine whether a food has exceeded the maximum permissible levels of the foodborne microorganisms specified in relation to that food in the Schedule.

(2) Any equivalent method to those specified in subclause (1), as determined by the provisions of AS/NZS 4659 as of the date of commencement of this Standard, is permitted to be used for the purposes of this Standard.

(3) The Australia/New Zealand Standard Methods for Water Microbiology AS 4276 must be used for packaged water, packaged ice and mineral water.

5 Microbiological limits in food

A lot of a food fails to comply with this Standard if the -

(a) number of defective sample units is greater than c; or
(b) level of a microorganism in a food in any one of the sample units exceeds M.

Schedule

Column 1 Food	**Column 2** Microorganism	**Column 3** n	**Column 4** c	**Column 5** m	**Column 6** M
Butter made from unpasteurised milk and/or unpasteurised milk products	*Campylobacter*/25g	5	0	0	
	Coagulase-positive staphylococci/g	5	1	10	10^2
	Coliforms/g	5	1	10	10^2
	Escherichia coli/g	5	1	3	9
	Listeria monocytogenes/25g	5	0	0	
	Salmonella/25g	5	0	0	
	SPC/g	5	0	$5x10^5$	
All cheese	*Escherichia coli*/g	5	1	10	10^2
Soft and semi-soft cheese (moisture content > 39%) with pH >5.0	*Listeria monocytogenes*/25g	5	0	0	
	Salmonella/25g	5	0	0	
All raw milk cheese (cheese made from milk not pasteurised or thermised)	*Listeria monocytogenes*/25g	5	0	0	
	Salmonella/25g	5	0	0	
Raw milk unripened cheeses (moisture content > 50% with pH > 5.0)	*Campylobacter*/25g	5	0	0	
Dried milk	*Salmonella/25g*	5	0	0	
Unpasteurised milk	*Campylobacter*/25ml	5	0	0	
	Coliforms/ml	5	1	10^2	10^3
	Escherichia coli/ml	5	1	3	9
	Listeria monocytogenes/25ml	5	0	0	
	Salmonella/25ml	5	0	0	
	SPC/ml	5	1	$2.5x10^4$	$2.5x10^5$
Packaged cooked cured/salted meat	Coagulase-positive staphylococci/g	5	1	10^2	10^3
	Listeria monocytogenes/25g	5	0	0	
	Salmonella/25g	5	0	0	
Packaged heat treated meat paste and packaged heat treated pâté	*Listeria monocytogenes*/25g	5	0	0	
	Salmonella/25g	5	0	0	

Schedule (Continued)

Column 1 Food	**Column 2** Microorganism	**Column 4** n	**Column 5** c	**Column 6** m	**Column 7** M
Fermented, comminuted meat which has not been cooked	Coagulase-positive staphylococci/g	5	1	10^3	10^4
	Escherichia coli/g	5	1	0	
	Salmonella/25g	5	0	0	
Cooked crustacea	Coagulase-positive staphylococci/g	5	2	10^2	10^3
	Listeria monocytogenes/25g	5	0	0	
	Salmonella/25g	5	0	0	
	SPC/g	5	2	10^5	10^6
Raw crustacaea	Coagulase-positive staphylococci/g	5	2	10^2	10^3
	Salmonella/25g	5	0	0	
	SPC/g	5	2	$5x10^5$	$5x10^6$
Ready-to-eat processed finfish, other than fully retorted finfish	*Listeria monocytogenes*/ g	5	1	0	10^2
Molluscs, other than scallops	*Escherichia coli*/g	5	1	2.3	7
Molluscs that have undergone processing other than depuration	*Listeria monocytogenes*/25g	5	0	0	
Cereal based foods for infants	Coliforms/g	5	2	<3	20
	Salmonella/25g	10	0	0	
Powdered infant formula	*Bacillus cereus*/g	5	2	10	10^2
	Coagulase-positive staphylococci/g	5	1	0	10
	Coliforms/g	5	2	<3	10
	Salmonella/25g	10	0	0	
	SPC/g	5	2	10^3	10^4
Powdered infant formula with added lactic acid producing cultures	*Bacillus cereus/g*	5	2	10	10^2
	Coagulase-positive staphylococci/g	5	1	0	10
	Coliforms/g	5	2	<3	10
	Salmonella/25g	10	0	0	
	SPC/g	5	2	10^3	10^4

Schedule (Continued)

Column 1 Food	**Column 2** Microorganism	**Column 3** n	**Column 4** c	**Column 5** m	**Column 6** M
Pepper, paprika and cinnamon	*Salmonella*/25g	5	0	0	
Dried, chipped, dessicated coconut	*Salmonella*/25g	10	0	0	
Cocoa powder	*Salmonella*/25g	5	0	0	
Cultured seeds and grains (bean sprouts, alfalfa, etc)	*Salmonella*/25g	5	0	0	
Pasteurised egg products	*Salmonella*/25g	5	0	0	
Mineral water	*Escherichia coli*/100ml	5	0	0	
Packaged water	*Escherichia coli*/100ml	5	0	0	
Packaged ice	*Escherichia coli*/100ml	5	0	0	