

Standard 1.6.1 Microbiological limits in food

- Note 1** This instrument is a standard under the *Food Standards Australia New Zealand Act 1991* (Cth). The standards together make up the *Australia New Zealand Food Standards Code*. See also section 1.1.1—3.
- Note 2** The provisions of the Code that apply in New Zealand are incorporated in, or adopted under, the *Food Act 2014* (NZ). See also section 1.1.1—3.
- Note 3** Section 1.1.1—11 provides that a food for sale must not have an unacceptable level of microorganisms, as determined in accordance with this standard. This standard sets out how to determine whether a lot of food has an unacceptable level of microorganisms.

1.6.1—1 Name

This Standard is *Australia New Zealand Food Standards Code – Standard 1.6.1 – Microbiological limits in food*.

Note Commencement:
This Standard commences on 1 March 2016, being the date specified as the commencement date in notices in the *Gazette* and the *New Zealand Gazette* under section 92 of the *Food Standards Australia New Zealand Act 1991* (Cth). See also section 93 of that Act.

1.6.1—2 Unacceptable microbiological levels

A *lot of a food has an unacceptable level of microorganisms if:

- (a) the food is listed in the table to section S27—4; and
- (b) the lot is tested in accordance with section 1.6.1—3; and
- (c) the test indicates that:
 - (i) the number of sample units having a level of a microorganism greater than that listed in the corresponding row of Column 4 (*m*) is greater than the number listed in the corresponding row of Column 3 (*c*); or
 - (ii) the level of the microorganism in any of the sample units is greater than the number (if any) listed in the corresponding row of Column 5 (*M*).

Note For the meaning of *lot*, see section 1.1.2—2.

1.6.1—3 Assessment of microbiological levels

- (1) Microbiological levels in food must be assessed in accordance with this section.
- (2) For a particular *lot of a food listed in Column 1 of the table section S27—3, the number of sample units taken must be the number of sample units set out in the corresponding row of Column 2 (*n*).
- (3) Despite subsection (2), if the food is the subject of a consumer complaint or a suspected food poisoning incident, an *authorised officer may take or otherwise obtain fewer sample units than the number referred to in that subsection or take smaller samples.
- (4) An *authorised officer who takes or otherwise obtains a sample of food for the purpose of submitting it for microbiological analysis:
 - (a) must not divide that sample into separate parts; and
 - (b) where the sample consists of one or more sealed packages 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.
- (5) The following reference methods must be used to determine whether a food has exceeded the maximum permissible levels of microorganisms specified in the table to section S27—4 in relation to that food:
 - (a) for a food other than packaged water, packaged ice or mineral water
 - (i) the relevant method prescribed by Australian Standard AS5013; or
 - (ii) the relevant method referenced by Australian Standard AS5013 and prescribed by the International Organization for Standardization; or
 - (iii) any equivalent method as determined by:

- (A) Australian New Zealand Standard *AS/NZS 4659; or
 - (B) ISO 16140:2003; and
- (b) for packaged water, packaged ice or mineral water—the relevant method prescribed by Australian New Zealand Standard AS/NZS 4276.
- (6) A reference to a Standard in subsection (5) is a reference to that Standard as in force at the commencement of this provision.

1.6.1—4 Food in which growth of *Listeria monocytogenes* will not occur

- (1) For the purposes of the table to section S27—4, growth of *Listeria monocytogenes* will not occur in a *ready-to-eat food if:
- (a) the food has a pH less than 4.4 regardless of water activity; or
 - (b) the food has a water activity less than 0.92 regardless of pH; or
 - (c) the food has a pH less than 5.0 in combination with a water activity of less than 0.94; or
 - (d) the food has a refrigerated shelf life no greater than 5 days; or
 - (e) the food is frozen (including foods consumed frozen and those intended to be thawed immediately before consumption); or
 - (f) it can be validated that the level of *Listeria monocytogenes* will not increase by greater than 0.5 log cfu/g over the food's stated shelf life.
- (2) For the purposes of the table to section S27—4, a *ready-to-eat food that does not receive a *listericidal process during manufacture is taken to be a food in which growth of *Listeria monocytogenes* will not occur if the level of *Listeria monocytogenes* will not exceed 100 cfu/g within the food's expected shelf life.
- (3) For the purposes of subclause (2), a *ready-to-eat food that does not receive a *listericidal process during manufacture is taken to include:
- (a) ready-to-eat processed finfish; and
 - (b) fresh cut and packaged horticultural produce.
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Amendment History

The Amendment History provides information about each amendment to the Standard. The information includes commencement or cessation information for relevant amendments.

These amendments are made under section 92 of the *Food Standards Australia New Zealand Act 1991* unless otherwise indicated. Amendments do not have a specific date for cessation unless indicated as such.

About this compilation

This is a compilation of Standard 1.6.1 as in force on **1 March 2016** (up to Amendment No. 157). It includes any commenced amendment affecting the compilation to that date.

Prepared by Food Standards Australia New Zealand on **1 March 2016**.

Uncommenced amendments or provisions ceasing to have effect

To assist stakeholders, the effect of any uncommenced amendments or provisions which will cease to have effect, may be reflected in the Standard as shaded boxed text with the relevant commencement or cessation date. These amendments will be reflected in a compilation registered on the Federal Register of Legislative Instruments including or omitting those amendments and provided in the Amendment History once the date is passed.

The following abbreviations may be used in the table below:

ad = added or inserted
 exp = expired or ceased to have effect
 rs = repealed and substituted

am = amended
 rep = repealed

Standard 1.6.1 was published in the Food Standards Gazette No. FSC96 on 10 April 2015 as part of Amendment 154 (F2015L00411 — 31 March 2015) and has since been amended as follows:

Section affected	A'ment No.	FRLI registration Gazette	Commencement (Cessation)	How affected	Description of amendment
Std title	157	F2015L01374 1 Sept 2015 FSC99 3 Sept 2015	1 March 2016	am	Correction of typographical error in title of Standard as a consequential amendment from amendment to Standard 1.1.1.
1.6.1—1	157	F2015L01374 1 Sept 2015 FSC99 3 Sept 2015	1 March 2016	am	Correction of typographical error in in title of Standard as a consequential amendment from amendment to Standard 1.1.1.
1.6.1—2	157	F2015L01374 1 Sept 2015 FSC99 3 Sept 2015	1 March 2016	am	Correction to cross-reference.
1.6.1—3(5)	157	F2015L01374 1 Sept 2015 FSC99 3 Sept 2015	1 March 2016	am	Correction to cross-reference.
1.6.1—4	157	F2015L01374 1 Sept 2015 FSC99 3 Sept 2015	1 March 2016	am	Correction to cross-references.

Schedule 27 Microbiological limits in food

Note 1 This instrument is a standard under the *Food Standards Australia New Zealand Act 1991* (Cth). The standards together make up the *Australia New Zealand Food Standards Code*. See also section 1.1.1—3.

Microbiological limits in food are regulated by subsection 1.1.1—11 and Standard 1.6.1. This Standard lists information for section 1.6.1—2 and subsection 1.6.1—3(2).

Note 2 The provisions of the Code that apply in New Zealand are incorporated in, or adopted under, the *Food Act 2014* (NZ). See also section 1.1.1—3.

S27—1 Name

This Standard is *Australia New Zealand Food Standards Code – Schedule 27 – Microbiological limits in food*.

Note Commencement:
This Standard commences on 1 March 2016, being the date specified as the commencement date in notices in the *Gazette* and the *New Zealand Gazette* under section 92 of the *Food Standards Australia New Zealand Act 1991* (Cth). See also section 93 of that Act.

S27—2 Definitions

Note In this Code (see section 1.1.2—2):

SPC:

- (a) means a standard plate count at 30°C with an incubation time of 72 hours; and
- (b) in relation to powdered infant formula products with added lactic acid producing organisms—means that standard plate count prior to the addition of the microorganisms to the food.

In this Schedule:

processed, in relation to egg product, means pasteurised or subjected to an equivalent treatment.

S27—3 Limit for SPC in powdered infant formula products

The limit for SPC in section S27—4 does not apply to powdered infant formula products that contain lactic acid producing microorganisms.

S27—4 Microbiological limits in food

For section 1.6.1—2, the table is:

Microbiological limits in food

Column 1	Column 2 (n)	Column 3 (c)	Column 4 (m)	Column 5 (M)
All cheese				
<i>Escherichia coli</i>	5	1	10/g	10 ² /g
Raw milk cheese				
<i>Salmonella</i>	5	0	not detected in 25 g	
Staphylococcal enterotoxins	5	0	not detected in 25 g	
Soft and semi-soft cheese (moisture content > 39%) with pH > 5.0				
<i>Salmonella</i>	5	0	not detected in 25 g	
Dried milk				
<i>Salmonella</i>	5	0	not detected in 25 g	
Unpasteurised milk for retail sale				
<i>Campylobacter</i>	5	0	not detected in 25 mL	

Column 1	Column 2 (n)	Column 3 (c)	Column 4 (m)	Column 5 (M)
Coliforms	5	1	10 ² /mL	10 ³ /mL
<i>Escherichia coli</i>	5	1	3/mL	9/mL
<i>Salmonella</i>	5	0	not detected in 25 mL	
SPC	5	1	2.5x10 ⁴ /mL	2.5x10 ⁵ /mL
Packaged cooked cured/salted meat				
Coagulase-positive staphylococci	5	1	10 ² /g	10 ³ /g
<i>Salmonella</i>	5	0	not detected in 25 g	
Packaged heat treated meat paste and packaged heat treated pâté				
<i>Salmonella</i>	5	0	not detected in 25 g	
All comminuted fermented meat which has not been cooked during the production process				
Coagulase-positive staphylococci	5	1	10 ³ /g	10 ⁴ /g
<i>Escherichia coli</i>	5	1	3.6/g	9.2/g
<i>Salmonella</i>	5	0	not detected in 25 g	
Cooked crustacea				
Coagulase-positive staphylococci	5	2	10 ² /g	10 ³ /g
<i>Salmonella</i>	5	0	not detected in 25 g	
SPC	5	2	10 ⁵ /g	10 ⁶ /g
Raw crustacea				
Coagulase-positive staphylococci	5	2	10 ² /g	10 ³ /g
<i>Salmonella</i>	5	0	not detected in 25 g	
SPC	5	2	5x10 ⁵ /g	5x10 ⁶ /g
Bivalve molluscs, other than scallops				
<i>Escherichia coli</i>	5	1	2.3/g	7/g
Ready-to-eat food in which growth of <i>Listeria monocytogenes</i> can occur				
<i>Listeria monocytogenes</i>	5	0	not detected in 25 g	
Ready-to-eat food in which growth of <i>Listeria monocytogenes</i> will not occur				
<i>Listeria monocytogenes</i>	5	0	10 ² cfu/g	
Cereal-based foods for infants				
Coliforms	5	2	less than 3/g	20/g
<i>Salmonella</i>	10	0	not detected in 25 g	
Powdered infant formula products				
<i>Bacillus cereus</i>	5	0	10 ² /g	
Coagulase-positive staphylococci	5	1	not detected in 1 g	10/g
Coliforms	5	2	less than 3/g	10/g
<i>Salmonella</i>	10	0	not detected in 25 g	

Column 1	Column 2 (n)	Column 3 (c)	Column 4 (m)	Column 5 (M)
SPC	5	2	10 ³ /g	10 ⁴ /g
Pepper, paprika and cinnamon				
<i>Salmonella</i>	5	0	not detected in 25 g	
Dried, chipped, desiccated coconut				
<i>Salmonella</i>	10	0	not detected in 25 g	
Cocoa powder				
<i>Salmonella</i>	5	0	not detected in 25 g	
Cultured seeds and grains (bean sprouts, alfalfa etc)				
<i>Salmonella</i>	5	0	not detected in 25 g	
Processed egg product				
<i>Salmonella</i>	5	0	not detected in 25 g	
Mineral water				
<i>Escherichia coli</i>	5	0	not detected in 100 mL	
Packaged water				
<i>Escherichia coli</i>	5	0	not detected in 100 mL	
Packaged ice				
<i>Escherichia coli</i>	5	0	not detected in 100 mL	

Amendment History

The Amendment History provides information about each amendment to the Standard. The information includes commencement or cessation information for relevant amendments.

These amendments are made under section 92 of the *Food Standards Australia New Zealand Act 1991* unless otherwise indicated. Amendments do not have a specific date for cessation unless indicated as such.

About this compilation

This is a compilation of Schedule 27 as in force on **1 March 2016** (up to Amendment No. 157). It includes any commenced amendment affecting the compilation to that date.

Prepared by Food Standards Australia New Zealand on **3 September 2015**.

Uncommenced amendments or provisions ceasing to have effect

To assist stakeholders, the effect of any uncommenced amendments or provisions which will cease to have effect, may be reflected in the Standard as shaded boxed text with the relevant commencement or cessation date. These amendments will be reflected in a compilation registered on the Federal Register of Legislative Instruments including or omitting those amendments and provided in the Amendment History once the date is passed.

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Schedule 27 was published in the Food Standards Gazette No. FSC96 on 10 April 2015 as part of Amendment 154 (F2015L00453 — 1 April 2015) and has since been amended as follows:

Section affected	A'ment No.	FRLI registration Gazette	Commencement (Cessation)	How affected	Description of amendment
Schedule heading, Note 1 to heading	157	F2015L01374 1 Sept 2015 FSC99 3 Sept 2015	1 March 2016	am	Correction of typographical errors.
1	157	F2015L01374 1 Sept 2015 FSC99 3 Sept 2015	1 March 2016	am	Correction of typographical error.
4, table to 27—4	157	F2015L01374 1 Sept 2015 FSC99 3 Sept 2015	1 March 2016	am	Correction of typographical errors in the headings.
table to 27—4	157	F2015L01374 1 Sept 2015 FSC99 3 Sept 2015	1 March 2016	am	Entries relating to cooked crustacea and ready-to-eat foods.
table to 27—4	157	F2015L01374 1 Sept 2015 FSC99 3 Sept 2015	1 March 2016	rep	Entries relating to butter, all raw milk cheese, raw milk unripened cheeses (moisture content > 50% with pH > 5.0).
table to 27—4	157	F2015L01374 1 Sept 2015 FSC99 3 Sept 2015	1 March 2016	ad	Entry relating to raw milk cheese.

Section affected	A'ment No.	FRLI registration Gazette	Commencement (Cessation)	How affected	Description of amendment
table to 27—4	157	F2015L01374 1 Sept 2015 FSC99 3 Sept 2015	1 March 2016	rs	Entries relating to unpasteurised milk for retail sale and powdered infant formula products.