

Interim Australian Standard®

Food microbiology

Method 13: Milk and milk products—Detection of *Enterobacter sakazakii*

PREFACE

This Interim Standard was prepared by the Standards Australia Committee FT-024, Food Products and Subcommittee FT-024-01, Food Microbiology (Constituted).

Attention is drawn to the fact that this document is an Interim Australian Standard and should be regarded as a developmental Standard and liable to future alteration.

This Interim Standard will have a currency of two years from its date of publication. At the conclusion of that period it will be superseded by another Standard, confirmed as an interim Standard in its present form for a further two year period or withdrawn.

This Interim Standard is identical with and reproduced from ISO/TS 22964:2006, *Milk and milk products—Detection of Enterobacter sakazakii*.

The objective of this Interim Standard is to specify a method for the detection of *Enterobacter sakazakii* in milk powder and powdered infant formula. The method is also applicable to environmental samples collected from milk powder or infant formula factories.

The genospecies *E. sakazakii*, which was comprised of a number of biogroups, no longer exists. Strains of *E. sakazakii* have now been reclassified into six separate species in the new genus, *Cronobacter*, within the family *Enterobacteriaceae*, with a number of strains of both *E. sakazakii* and other *Enterobacter* species comprising of *C. sakazakii*.

As this Interim Standard is reproduced from an International Technical Specification, the following applies:

- (a) In the source text ‘this Technical Specification’ should read ‘this Interim Australian Standard’.
- (b) A full point should be substituted for a comma when referring to a decimal marker.
- (c) Substitute ‘mL’ for ‘ml’ wherever it appears.

References to International Standards should be replaced by references to equivalent Australian Standard, as follows:

<i>Reference to International Standard</i>	<i>Australian Standard</i>
ISO	AS
8261 Milk and milk products—General guidance for the preparation of test samples, initial suspensions and decimal dilutions for microbiological examination	5013 Food microbiology 5013.17 Method 17: Milk and milk products—General guidance for the preparation of test samples, initial suspensions and decimal dilutions for microbiological examination

ISO		AS	
7218	Microbiology of food and animal feeding stuffs—General rules for microbiological examinations	5013.14	Method 14: Microbiological of food and animal feeding stuffs—General rules for microbiological examinations

The laboratory should have a clearly defined quality control system to ensure that the apparatus, culture media, reagents and technique are suitable for the test. The use of positive controls is part of this system.

The term ‘informative’ has been used in this Standard to define the application of the annex to which it applies. An ‘informative’ annex is only for information and guidance.

1 Scope

This Technical Specification specifies a method for the detection of *Enterobacter sakazakii* in milk powder and powdered infant formula.

The method is also applicable to environmental samples collected from milk powder or infant formula factories.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 8261|IDF 122, *Milk and milk products — General guidance for the preparation of test samples, initial suspensions and decimal dilutions for microbiological examination*

ISO 7218, *Microbiology of food and animal feeding stuffs — General requirements and guidance for microbiological examinations*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1

presumptive *Enterobacter sakazakii*

microorganisms which form typical colonies on a chromogenic isolation agar, when tests are carried out in accordance with this Technical Specification

3.2

Enterobacter sakazakii

microorganisms which form typical colonies on a chromogenic isolation agar, form yellow colonies on tryptone soya agar and display biochemical characteristics as described, when tests are carried out in accordance with this Technical Specification

4 Principle (see also annex A)

4.1 Pre-enrichment in non-selective liquid medium

The pre-enrichment medium is inoculated with the test portion and incubated at $37\text{ °C} \pm 1\text{ °C}$ for 16 h to 20 h.

4.2 Enrichment in selective liquid medium

The selective enrichment medium is inoculated with the culture obtained in 4.1 and incubated at $44\text{ °C} \pm 0,5\text{ °C}$ for 22 h to 26 h.