

Australian/New Zealand Standard™

AS/NZS 1766.3.14

Food microbiology

Method 3.14: Examination of specific products—Butter, margarine and related products

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee FT/4, Food Microbiology, to supersede AS 1766.3.6—1980, *Methods for the microbiological examination of food*, Method 3.6: *Examination of specific products—Margarine* and AS 1766.3.14—1994, *Food microbiology*, Method 3.14: *Examination of specific products—Butter and related products*.

The objectives of this revision are as follows:

- (a) To amalgamate these two methods into one Standard.
- (b) To comply with the international Standards, that is IDF 122C:1996, *Milk and milk products—Preparation of samples and dilutions for microbiological examination*, by changing the preparation of the initial diluent.

IDF testing procedure recommends two methods of analysis. The first method is similar to the method followed in Australia, where butter is melted at 40–45°C, and 10 g is used for microbiological analyses and the whole product is examined rather than the aqueous phase only. The alternate second method specifies testing of the aqueous phase only.

- (c) To effect some minor editorial changes to bring the Standard in line with current Standards Australia style.

It is one of a series of methods for the microbiological examination of foods for quality control and investigative purposes and, where applicable, for checking that foods comply with regulatory specifications.

METHOD

1 SCOPE This Standard sets out microbiological methods for the examination of butter, margarine and related products.

NOTE: The methods are applicable to salted, unsalted or cultured butter, and to products such as anhydrous milk fat and margarine. They do not apply to buttermilk powder for which procedures are given elsewhere in this series of methods.

2 REFERENCED DOCUMENTS The following documents are referred to in this Standard:

AS

- 1166 Milk and milk products—Methods of sampling (identical to ISO 707:1985)
- 1766 Food microbiology
- 1766.1.1 Method 1.1: General procedures and techniques—Samples, materials, equipment, laboratory practice
- 1766.1.2 Method 1.2: General procedures and techniques—Preparation of dilutions
- 1766.2 Method 2: Examination for specific organisms (series)
- 1766.3.7 Method 3.7: Examination of specific products—Heat-processed foods in hermetically-sealed containers
- 1766.5 Method 5: Preparation of culture media, diluents and reagents

3 DILUENTS, CULTURE MEDIA AND REAGENTS

3.1 General The required diluents, culture media and reagents are specified in the relevant methods referred to in this Standard. Formulations and instructions for preparing them are given in AS 1766.5.

3.2 Peptone solution, containing 0.1% agar

3.3 Peptone solution, 0.1%

NOTE: Hold diluents in a water bath at $45 \pm 1^\circ\text{C}$ when preparing dilutions (see Clause 7).

4 APPARATUS Suitable sterilized can opener.

NOTES:

- 1 If the double seams of the can are to be examined, a special can opening tool, as illustrated in AS 1766.3.7, is required.
- 2 Other apparatus is specified in the relevant methods referred to in this Standard.

5 SAMPLES

5.1 Laboratory samples The laboratory sample shall be obtained and delivered to the laboratory according to the procedures set out in AS 1166.

NOTE: The size of the laboratory sample taken in accordance with AS 1166 may be adjusted in order to provide a sufficient quantity for the required tests.

5.2 Storage of laboratory samples Laboratory samples shall be stored at a temperature not exceeding 5°C , but without freezing, until tested. Testing shall commence within 24 h of sampling.

6 PREPARATION OF TEST SAMPLES

6.1 Sterilization of sampling equipment Containers, triers, spatulas and other items used for subsampling the laboratory samples shall be sterilized as specified in AS 1766.1.1. Suitable presterilized disposable apparatus may also be used.

6.2 Observation of physical condition Observe the physical condition of the product at the time of testing and record any abnormality.

6.3 Bulk product The laboratory sample taken as described in Clause 5.1 should be suitable for preparation of the first dilution as described in Clauses 7.1 and 7.2.

6.4 Consumer packs The procedure shall be as follows:

- (a) If necessary, soften the product by standing the pack at room temperature for no longer than 60 min.