Australian Standard®

Food microbiology

Method 1.3: General procedures and techniques—Colony count—Pour plate method

PREFACE

This Standard was prepared by the Standards Australia Committee on Food Microbiology to supersede the following Standards:

AS	
1095	*Microbiological methods for the dairy industry*
1095.1—1971	*General procedures and techniques* *Section 2.2: Colony count—Pour plate (Petri dish) method*
1142	*Methods for the microbiological examination of eggs and egg products*
1142.1—1975	*General procedures and techniques* *Section 2.1: Colony count—Pour plate (Petri dish) method*
1766	*Methods for the microbiological examination of food*
1766.1—1975	*General procedures and techniques* *Section 2.2.2: Plate count methods—Pour plate method*

METHOD

1 SCOPE This Standard sets out a method for estimating the number of colony-forming units (CFUs) in a sample of food using a pour plate technique.

NOTES:

1. The pour plate method is used for estimating the standard plate count (SPC), which is the total number of CFUs per millilitre or per gram of material under the conditions of the test.

   The pour plate method is also used for estimating the number of a specific microorganism in the material under test.
2. See also AS 1766.1.4 for application of the surface spread method.

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

AS	
1095	Microbiological methods for the dairy industry
1766	Food microbiology
1766.1.2	Method 1.2: General procedures and techniques—Preparation of dilutions
1766.1.4	Method 1.4: General procedures and techniques—Colony count—Surface spread method

3 PRINCIPLE Serial decimal dilutions of the material under test are prepared and 1 mL volumes are transferred to Petri dishes and mixed with molten agar medium. Colonies are formed both on the surface and in the depth of the medium. The count is calculated from the mean count of a number of plates, taking dilution factors into account.

4 DILUENTS AND CULTURE MEDIA The diluents and culture media are specified in the relevant methods of AS 1095 or AS 1766 according to the product under examination and the microorganisms to be counted.