Australian Standard®

Food microbiology

Method 1.5: General procedures and techniques—Colony count—Membrane filtration 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 2.5: Colony count—Membrane filtration method*
1142	*Methods for the microbiological examination of eggs and egg products*
1142.1—1975	*General procedures and techniques* *Section 2.3: Colony count—Membrane filtration method*
1766	*Methods for the microbiological examination of food*
1766.1—1975	*General procedures and techniques* *Section 2.3: Colony count—Membrane filtration method*

METHOD

1 SCOPE This Standard sets out a method for estimating the number of colony-forming units (CFUs) in suitable liquids using a membrane filtration technique.

The method is applicable only to liquids which can be efficiently filtered without causing a build-up on the filter.

NOTE: The membrane filtration method is most suitable when the microorganisms are in low concentration, e.g. in rinse waters collected from cleaned and sanitized pipelines or tanks. The method is suitable for microbiological assessment of water supplies to processing plants.

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

AS	
1095	Microbiological methods for the dairy industry
1766	Food microbiology
1766.1.1	Method 1.1: General procedures and techniques—Samples, materials, equipment, laboratory practice

3 PRINCIPLE The method involves passing a liquid sample through a membrane of known physical properties. Microorganisms in the sample are retained on the membrane which is then placed on a filter pad saturated with liquid medium, or on solid medium, and incubated. Colonies, corresponding to the viable organisms collected on the filter, are then counted.

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

Where the medium is of a non-indicating type, a stain comprising 0.01 percent aqueous solution of malachite green oxalate is required.