

# Australian Standard®

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## Food microbiology

### Method 1.2: General procedures and techniques—Preparation of dilutions

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#### PREFACE

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

AS

1095 *Microbiological methods for the dairy industry*

1095.1—1971 *General procedures and techniques*

*Section 2.1: Preparation of dilutions*

1766 *Methods for the microbiological examination of food*

1766.1—1975 *General procedures and techniques*

*Section 2.1: Preparation of dilutions*

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#### METHOD

**1 SCOPE** This Standard sets out procedures for the preparation of further dilutions of a sample of food which has been prepared for microbiological examination by the relevant method of AS 1766.

NOTE: For milk and certain dairy products the method of preparation of the sample is given in AS 1095. The methods in AS 1095 will be eventually reissued as equivalent methods of AS 1766.

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

AS

1095 *Microbiological methods for the dairy industry*

1766 *Food microbiology*

**3 APPARATUS** The following apparatus is required:

- (a) Test tubes, nominal size 150/16 mm, or dilution bottles provided with well-fitting closures.
- (b) Pipettes, 1 mL, 2 mL and 10 mL blowout.

**4 PREPARATION OF SAMPLE AND FIRST DILUTION** The preparation of the sample and the first dilution shall be carried out as described in the relevant method of AS 1766 (or AS 1095 if applicable).

**5 PREPARATION OF FURTHER DILUTIONS** The procedure shall be as follows:

- (a) Prepare the required number of tubes or dilution bottles, each containing 9 mL of sterile diluent.
- (b) Place the tip of a 1 mL blowout pipette into the dilution to a depth of 10 mm to 20 mm below the surface, draw up to the 1 mL graduation line, withdraw the pipette until the tip is above the level of the liquid, and then expel the liquid from the pipette. Repeat this mixing procedure ten times.

OR

Mix the dilution using a vortex mixer by holding the tube vertically in the cup of the mixer for 10 s. If the mixer is of the variable speed type, select a speed at which the upper level of the liquid reaches at least two-thirds of the distance up the tube, but not so far that the closure is wet by the diluent.