

# Australian Standard®

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## Food microbiology

### Method 2.8: Examination for specific organisms—*Clostridium perfringens*

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#### PREFACE

This Standard was prepared by the Standards Australia Committee on Food Microbiology to supersede in part AS 1766.2 Addendum 2—1977.

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#### METHOD

**1 SCOPE** This Standard sets out methods for the enumeration of *Clostridium perfringens* in foods. Two methods of examination are described as follows:

- (a) *Spread plate method*—this test is used for estimating the number of viable *C. perfringens* per specified unit of material under test.
- (b) *Most probable number method*—this test is used for estimating the most probable number (MPN) of *C. perfringens* per specified unit of material under test.

**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
- 1766.1.6 Method 1.6: General procedures and techniques—Estimation of most probable number (MPN) of microorganisms
- 1766.3.1 Method 3.1: Examination of specific products—Meat and meat products other than poultry
- 1766.3.2 Method 3.2: Examination of specific products—Poultry
- 1766.3.3 Method 3.3: Examination of specific products—Dehydrated foods
- 1766.3.4 Method 3.4: Examination of specific products—Frozen foods
- 1766.3.5 Method 3.5: Examination of specific products—Molluscs, crustaceans and fish, and products thereof
- 1766.3.6 Method 3.6: Examination of specific products—Margarine
- 1766.3.7 Method 3.7: Examination of specific products—Heat-processed foods in hermetically-sealed containers
- 1766.3.8 Method 3.8: Examination of specific products—Eggs and egg products
- 1766.5 Method 5: Preparation of media, diluents and reagents

**3 PRINCIPLE** The basic steps in these methods are examination for presumptive *C. perfringens*, and tests to confirm *C. perfringens*.

A flow diagram of the examination procedures is given in Figure 1.

#### **4 MEDIA, REAGENTS, AND REFERENCE CULTURES**

##### **4.1 Culture media (see AS 1766.5 and Appendix A)**

- 4.1.1 *Tryptose sulfite cycloserine (TSC) agar*
- 4.1.2 *Tryptose sulfite cycloserine (TSC) agar without egg yolk*
- 4.1.3 *Cooked meat (CM) medium containing neomycin*