STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard
MICROBIOLOGICAL METHODS FOR THE DAIRY INDUSTRY

PART 3—METHODS OF EXAMINATION FOR SPECIFIC GROUPS OF MICROORGANISMS

AS 1095.3.8
SALMONELLAE

FOREWORD

A wide range of culture media is available for the isolation of salmonellae from dairy products and the review by Harvey and Price (see Clause 14 (a)) is recommended for further reading.

It should be recognized that the results obtained may vary according to the method and media used so for comparative studies this method should be followed.

METHOD

1 SCOPE. This standard sets out a method for the detection of salmonellae in dairy products.

2 APPLICATION. The method is intended as a reference method suitable for checking that dairy products comply with microbiological requirements specified in regulations.

3 SAFETY PRECAUTIONS. The safety precautions described in these Methods shall be observed.

NOTE: More detailed information on laboratory safety is given in AS 2243, Safety in Laboratories.

4 REFERENCED DOCUMENTS. The following standards are referred to in this standard:

AS 1095 Microbiological Methods for the Dairy Industry
- 1095.1 General Procedures and Techniques
- 1095.2 Methods for the Examination of Specific Dairy Products
- 1095.3A Preparation of Media and Diluents.

5 OUTLINE OF THE METHOD. The method described incorporates the use of liquid resuscitation, liquid selective enrichment and solid selective media for the isolation of presumptive salmonellae and their subsequent biochemical and serological confirmation.

A flow diagram of the examination procedure for salmonellae is shown in Fig. 1.

6 MEDIA AND REFERENCE CULTURES.

6.1 Media (see AS 1095.3A).

Peptone water
Buffered peptone water
Mannitol selenite cystine broth
Tetrathionate broth (see Appendix A)
Xylose lysine desoxycholate (XLD) agar (see Appendix A)
Bismuth sulphite agar
Decarboxylase broth base
Lysine decarboxylase broth
ONPG broth
Cystine lactose electrolyte deficient (CLED) medium
Nutrient agar
Saline solution, 0.85 percent

NOTE: Because of the history and nature of the product being tested, a laboratory might consider that alternative selective media may provide better recovery of salmonellae and reduce the possibility of a false negative result. In these circumstances it is suggested that tests be conducted using the alternative media simultaneously with the tests using the selective media specified in this standard. If salmonellae are detected using the alternative media and not using the standard media, then this should be clearly explained in the report.

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