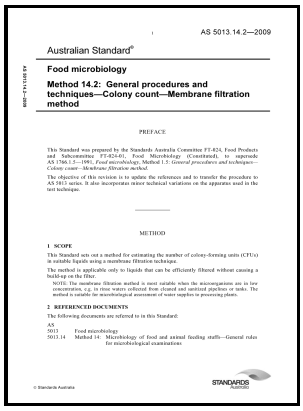
Membrane filter food microbiology

Research Studies - Membrane Filtration in Food & Beverage Industry



AS 5013.14.2—2009

Australian Standard®

Food microbiology

Method 14.2: General procedures and techniques—Colony count—Membrane filtration method

PREFACE

This Standard was prepared by the Standards Australia Committee FT-024, Food Products and Subcommittee FT-024-01, Food Microbiology (Constituted), to supersede AS 1766.1.2—1991, *Food microbiology, Method 1.2: General procedures and techniques—Colony count—Membrane filtration method*.

The objective of this revision is to update the references and to transfer the procedure to AS 5013 series. It also incorporates minor technical variations on the apparatus used in the test technique.

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 that can be efficiently filtered without causing a build-up on the filter.

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 in processing plants.

2 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

5013 Food microbiology

5013.14 Method 14: Microbiology of food and animal feeding stuffs—General rules for microbiological examinations

© Standards Australia

STANDARDS AUSTRALIA

Description: -

-

Dogs -- Fiction
Cats -- Fiction
Friendship -- Fiction
Gifts -- Fiction
Archives -- United States -- Administration.
Manuscripts -- Conservation and restoration -- United States.
Public records -- Conservation and restoration -- United States.
Microbiology -- Technique.
Food contamination.
Food -- Microbiology.Membrane filter food microbiology

-

Innovation in microbiology seriesMembrane filter food microbiology
Notes: Includes bibliography and index.
This edition was published in 1987

Filesize: 6.710 MB

Tags: #Common #Microbiology #Analyses

Membrane filtration of food suspensions

The bacterial colonies are counted using a magnifying lens.

Membrane Filtration in Food & Beverage Industry

Large volumes of culture media may also be filter sterilized rather than autoclaved to protect heat-sensitive components. According to the CDC, the Ohio case was the largest botulism outbreak in the United States in nearly 40 years. It is an important technique generally applied in the examination of public health samples such as water and food.

Food Microbiology

Incubate the culture plate at the proper temperature and for the appropriate time period. Because UV light does not penetrate surfaces and will not pass through plastics or glass, cells must be exposed directly to the light source. Practically, the membrane filter is incubated on a suitable solid culture media plate; and incubated at the appropriate environmental conditions that favour bacterial growth.

Membrane filtration of food suspensions

In the laboratory, ionizing radiation is commonly used to sterilize materials that cannot be autoclaved, such as plastic Petri dishes and disposable plastic inoculating loops. The process of pasteurization was first developed by Louis Pasteur in the 1860s as a method for preventing the spoilage of beer and wine.

Membrane Filtration in Food & Beverage Industry

Unless otherwise noted, LibreTexts content is licensed by. The first step, or pre-enrichment, involves suspending the required sample weight 10-25g in a large 100-250ml volume of a non-selective medium designed to resuscitate damaged cells and promote microbial growth.

Food Pathogen Concentration Techniques

This is why MilliporeSigma introduces the new ReadyPlate 55 and certified kits in order to maintain a high level of efficiency in the laboratory.

Common Microbiology Analyses

It is used in simple techniques like cooking and canning. IMS is a very effective separation and concentration technique, although it is not suitable for processing large volumes of sample or culture, partly because high concentrations of beads are needed to bind the target cells.

Food Microbiology

Turn on the vacuum pump and allow the sample to draw completely through the membrane filter.

Related Books

- Wittgensteins philosophical investigations - a guide
- Scheduled castes, search for an identity
- Bundeswahlrecht und direkte Demokratie - Gesetzesausgabe mit Erläuterungen und einer Sammlung der J
- So kam der Mensch auf den Hund.
- Graphic Design: A Career Guide and Education Directory