Australian Standard®

Water microbiology

Method 3.1: Heterotrophic colony count methods—Pour plate method using plate count agar

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee on Water Microbiology, FT/20, as part of a series of methods for the microbiological examination of waters for domestic and industrial use.

This Standard is the result of a consensus among Australian and New Zealand representatives on the Joint Committee to produce it as an Australian Standard.

The method set out in this Standard replaces a method previously given in AS 1095.4.1.2—1981, *Microbiological methods for the dairy industry—Methods for the examination of water and air—Microbiological examination of water—Colony count by the pour plate method.*

FOREWORD

Waters of all kinds contain a variety of microorganisms derived from various sources and estimation of their overall number can provide useful information for assessing and monitoring water quality. Microorganisms which are able to survive in water usually grow better in the laboratory at about 21°C than at higher temperatures, the results often reflecting the environmental and seasonal conditions prevailing at the time. In contrast, microorganisms which grow well at 35°C or 37°C generally survive with difficulty in water. They are more likely to have come from other sources, which may imply poor standards of hygiene.

For these reasons, separate plate counts are usually made of microorganisms which are able to form colonies at 21°C and at 35°C or 37°C.

METHOD

1 SCOPE This Standard sets out a method for estimating the number of colony-forming units (CFUs) in water using a pour plate technique and plate count agar.

NOTE: This method is not suitable for waters containing growth-inhibiting additives, e.g. cooling-tower waters.