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**SN**

**INDUSTRY STANDARD OF THE  
PEOPLE'S REPUBLIC OF CHINA**

**SN/T 2552.4-2010**

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**Microbiological examination of milk and milk products hygiene.  
Part 4: Colony-count method of psychrotrophic  
microorganisms  
(English Translation)**

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### Foreword

SN/T 2552 "Milk and dairy products Hygienic science test methods" is divided into thirteen sections.

- Part 1. Guidance on sampling;
- Part 2. Preparation of test sample dilution;
- Part 3. yeast, mold colony count;
- Part 4. psychrophilic microbial colony counts;
- Part 5. Salmonella testing;
- Part 6. Citrobacter inspection;
- Part 7. Enterobacter cloacae inspection;
- Part 8. Proteus mirabilis and test methods;
- Part 9. Klebsiella test;
- Part 10. Enterobacter sakazakii immunofluorescence test methods;
- Part 11. Bacillus cereus Isolation and counting;
- Part 12. monocytogenes Listeria detection and counting;
- Part 13. Pseudomonas Isolation and counting.

This section is SN/T 2552 Part 4.

This section drafted in accordance with GB/T 1.1-2009 given rules.

This portion of the first modification method using ISO 6730:2005/IDF101 "psychrotrophic milk microbial colony counts 6.5 °C colony count technique" (Milk-Enumeration of colony forming units of psychrotrophic microorganisms-Colony-count technique at 6.5 °C),

use the second method to modify the ISO 8552:2004/IDF132 assessment "milk psychrotrophic microorganism colony count of 21 °C Number of technology (Rapid method) "(Milk-Estimationofpsychrotrophicmicroorganisms-Colony-counttechniqueat 21 °C), the main differences are as follows.

--- According to GB/T 1.1 standard and the Chinese habit for some formatting has been modified;

--- Some expression to international standards applicable to our standard way of expression;

--- Preamble has been modified;

--- Normative references cited the adoption of international standards in this series of standards, rather than international standards;

--- In order to practice more in line with our habits and requirements 5.2.4 will not use the scale straw volume requirements  $11\text{mL} \pm 0.2\text{mL}$ .

5.2.6 colony counting device will be modified as optional equipment;

--- In order to simplify the preparation of the medium, the first method and the second method used for the second medium unity with media law, namely plate count Milk agar (see Appendix A).

--- 8.5.7 In order to avoid the spread of colonies, precautionary measures should be taken only recommended to take "after solidification, covered with medium" approach, Without also recommended method, "a drop of glycerol on a Petri dish cover filter paper" in;

--- Unity "repetitive" requirement, the second law "repeatability" was changed to refer to the first law of "repetitive." this section proposed and managed by the National Certification and Accreditation Administration Committee.

This section drafted by. China Inspection and Quarantine Science Research Institute, People's Republic of China Shandong Exit Inspection and Quarantine, the People's Republic of China State and Jiangsu CIQ.

## 1 Scope

This section SN/T 2552 provisions under the colony counting method psychrotrophic microorganisms under conditions of 6.5 °C, 21 °C condition of psychrotrophic microorganisms to assess the number of colony counting fast method.

This section applies to raw milk, pasteurized milk and other heat-treated milk psychrophilic microbial colony counting, milk and dairy products to other Referring use.

## 2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member, undated references, the latest edition (including any amendments) applies to this document.

SN/T 2552.1 milk and dairy hygiene microbiology test methods - Part 1. Guidance on sampling  
SN/T 2552.2 milk and dairy hygiene Microbiological test method - Part 2. Preparation of test sample dilution

## 3 Terms and Definitions

The following terms and definitions apply to this document.

Psychrophilic microorganisms psychrotrophicmicroorganisms 10d cultured under conditions specified in this 6.5 °C, the formation of countable colonies of bacteria, yeasts and molds.

### Principle 4

By plate count milk agar and a predetermined number of sample preparation pour plates. The test samples were tenfold dilutions, the same Under the conditions of the preparation of other dilution plate. Plates under aerobic conditions, 6.5 °C cultured 10d, 21 °C culture 25h. To obtain satisfactory Results, select the appropriate level of dilution to dilution levels and the number of colonies on agar plates obtained from the calculated per milliliter sample colony forming Units (CFU).

This section includes the first normal 6.5 °C colony counting method and the second method 21 °C colony counting method (rapid method). Rapid second method described Method is an approximate method. This is because under culture conditions of 21 °C, except Psychrophile also other bacteria can grow. However, a large number of the results showed that the first method and the resulting second method showed good correlation. The first method meet Psychrophile count more accurate requirements.

## 5.1 General

### 5.1.1

SN/T 2552.2 requirements for all contact with the test sample, diluent and diluted sample or culture medium of the apparatus for uniform Sterilization.