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

NY/T 1331-2007

**Enumeration of Colony of Psychrotrophic Microorganisms,
Total Aerobic Bacterial Spores and Thermophilic Aerobic
Bacterial Spores in Milk and Dairy Products
(English Translation)**

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Foreword

This Standard is drafted by reference to "Milk - Enumeration of Colony-forming Units of Psychrotrophic Micro-organisms - Colony-Count Technique at 6.5°C" (ISO 6730.1992, English version), "Milk and Dairy Products-Determination of the Content of Spores of Mesophilic Aerobic Sporeforming Bacteria" (NEN 6813.1999, Dutch version) and "Milk and Dairy Products - Determination of the Content of Thermophilic Aerobic Sporeforming Bacteria" (NEN 6809.1999, Dutch version). This Standard is not equivalent to ISO 6730.1992, NEN 6813.1999, NEN 6809.1999.

This Standard was proposed by the Ministry of Agriculture of the People's Republic of China.

This Standard is under the jurisdiction of Animal Husbandry of Standardization Administration of China.

Drafting organization of this Standard. Ministry of Agriculture Dairy Quality Supervision and Testing Center

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Enumeration of Colony of Psychrotrophic Microorganisms,
Total Aerobic Bacterial Spores and Thermophilic Aerobic
Bacterial Spores in Milk and Dairy Products

Part I. Enumeration of Colony of Psychrotrophic Microorganisms
in Milk

1 Scope

This Part specifies the test method for the enumeration of colony of psychrotrophic microorganisms in milk.

This Part is applicable to the enumeration of colony of psychrotrophic microorganisms in raw and fresh milk and pasteurized milk.

2 Normative References

The following normative documents contain provisions which, through reference by this Part, constitute the provisions of this Part. For dated reference, subsequent amendments (excluding the corrected contents) or revisions do not apply to this Part. However, parties who enter into agreements based on this Standard are encouraged to investigate the possibility of applying the most recent editions of the relevant standards indicated below. For any undated references, the latest edition of the document applies to this Part.

GB/T 4789.1 Microbiological Examination of Food Hygiene - General Principles

GB/T 4789.28-2003 Microbiological Examination of Food Hygiene - Staining
Methods, Culture Mediums and Reagents

3 Terms and Definitions

The following terms and definitions are applicable to this Part.

3.1 Psychrotrophic microorganisms

Under condition of 6.5°C, with aerobic incubation of 10d, the bacteria, yeasts and mildews forming countable colonies on MPC agar plate.

4 Principle

Incubate the sample in the milk plate count agar, at 6.5°C for 10d, then count the number of psychrotrophic microorganisms per milliliter through colony counting.

5.1.1 Components

Enzyme hydrolyzed casein peptone 1.0g

5.1.2 Preparation Method

Dissolve the enzyme hydrolyzed casein peptone and sodium chloride into distilled water.

Calculate the pH value to 7.0 ± 0.1 with sodium hydroxide solution with mass fraction of 15%.

Pour into test tubes and flasks, 9mL per tube, 90mL or 225mL per flask, relative error less than or equal to $\pm 2\%$. After sealed, $121^\circ\text{C} \pm 1^\circ\text{C}$ autoclave for 15min.

5.3.2 Preparation Method

Dissolve all components (excluding agar) specified in Article 5.3.1 into distilled water, and calibrate the pH value to 7.0 ± 0.1 with sodium hydroxide solution with mass fraction of 15%. Add agar, heat up until boiling to melt the agar. If necessary, filtered by two-layer gauze

filled with absorbent cotton.

7 Sampling

Sampling shall be carried out in accordance with GB/T 4789.1.

8 Test Procedures

See Figure 1 for test procedures for the number of psychrotrophic microorganisms.

Figure 1