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SN

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

SN/T 4656.7-2020

**Import and export textiles biosafety inspection method - Part 7:
Pseudomonas aeruginosa
(English Translation)**

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Foreword

SN/T 4656 "Methods for Biosafety Inspection of Imported and Exported Textiles" is divided into the following parts.

- Part 1: *Candida albicans*;
- Part 2: *Escherichia coli*;
- Part 3: Coliform flora;
- Part 4: *Staphylococcus aureus*;
- Part 5: Total number of colonies;
- Part 6: *Salmonella*;
- Part 7: *Pseudomonas aeruginosa*;
- Part 8: General Rules this part is part 7 of SN/T 4656.

This part was drafted in accordance with the rules given in GB/T 1.1-2009.

1 Scope

This part of SN/T 4656 specifies the inspection method for *Pseudomonas aeruginosa* in import and export textiles.

This part is applicable to the inspection of *Pseudomonas aeruginosa* of import and export textiles.

2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this article. For undated reference documents, the latest version (including all amendments) is applicable to this document.

GB/T 6682 Analytical laboratory water specifications and test methods GB/T 8170 Numerical rounding rules and the expression and determination of limit values SN/T 1538.1 Guidelines for the Preparation of Culture Medium Part 1: General Rules for Quality Assurance of Laboratory Culture Medium Preparation SN/T 1538.2 Medium Preparation Guide Part 2: Practical Guide for Medium Performance Testing SN/T 4656.8 Biosafety Inspection Method for Import and Export Textiles Part 8: General Rules

3 Terms and definitions

The following terms and definitions apply to this document.

Biosafety of textiles the harmful organisms themselves or their metabolites carried in textiles pose potential threats to the ecological environment and human health, and their effects. A series of effective prevention and control measures taken.

Pseudomonas aeruginosa Also known as *Pseudomonas aeruginosa*, straight or slightly curved gram-negative, aerobic, non-bacillus bacillus, can use acetamide as a carbon source and decompose Acetamide produces alkali; can reduce nitrate, liquefy gelatin, grow well at 42 °C, has high lethality, strong hemolysis, and drug resistance. Strong sex and other characteristics. This fungus is widely distributed in nature, the main growth condition is humid environment, other conditions are not demanding, and it can temporarily parasitize it is on the skin, so the rate of contact body surface infection is quite high.

Loop-mediated isothermal amplification; LAMP Two pairs of special inner and outer primers designed according to the conserved genes of the target sequence unique to the target bacteria, specifically recognize the six on the target sequence in an independent area, use Bst DNA polymerase to start the cyclic chain displacement reaction, and keep it for 30 min to 60 min under isothermal conditions.

Complete nucleic acid amplification efficiently and quickly. The pyrophosphate ions

precipitated from dNTPs combine with Mg^{2+} in the reaction solution to produce by-products (coke Magnesium phosphate) to form a milky white precipitate, add the color-developing solution, and the result can be determined by the color change observation.

4 Materials and equipment

4.1

Sterile scissors and tweezers.

4.2

Electronic balance. with a sense of 0.01 g.

4.3

Sterile homogeneous bag.

4.4

Slap type homogenizer. 400 mL.

4.5

Sterile specification plate. 20 cm².

4.6

Sterile dry cotton swabs.

4.7

Micropipette. measuring range 0.5 μ L ~ 20 μ L, measuring range 100 μ L ~ 1 000 μ L, measuring range 1 mL ~ 10 mL.

4.8

Sterile small triangular flask. 25 mL.

4.9

Sterile glass plates or disposable sterile plastic plates. 15 mm x 90 mm.

4.10

Sterile L-shaped glass holder.

4.11

Constant temperature incubator. 36 °C $\pm$ 1 °C, 42 °C $\pm$ 1 °C.

4.12

Inoculation loop.

4.13

Microscope. 10x~100x.

4.14

Fully automatic microbial biochemical identification system.

4.15

Sterilized centrifuge tube. 1.5 mL.

4.16

High-speed refrigerated centrifuge. 2 000 r/min ~ 13 000 r/min.

4.17

LAMP reaction tube.

4.18

Water bath. 65 °C ±1 °C.

4.19

LAMP real-time turbidity meter.

5 Medium and reagents

Except for special instructions, all experimental reagents are analytically pure; the experimental water used for molecular detection meets the requirements of Grade 1 water in GB/T 6682 Claim.

5.1

Sterile normal saline. see A.2.

5.2

SCDLP liquid medium. see A.3.

5.3

Acetamide agar. see A.4.

5.4

Gram staining solution. see A.5.

5.5

Oxidase reagent. see A.6.

5.6

Aqueous nitrate peptone medium. see A.7.