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

MZ/T 140-2019

**Technical specifications for examination of pathogenic bacteria
in funeral home
(English Translation)**

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Foreword

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

This standard was proposed by the Ministry of Civil Affairs of the People's Republic of China.

This standard is under the jurisdiction of the National Funeral Standardization Technical Committee (SAC/TC 354).

This standard was drafted. 101 Institute of the Ministry of Civil Affairs, Dadi Humanistic Cultural Development Group Co., Ltd., Guangzhou Funeral Service Center, China Funeral Association, Yisuoqing (Shanghai) Environmental Technology Co., Ltd.

1 Scope

This standard specifies the sampling and detection methods of pathogenic bacteria in various funeral places.

This standard applies to funeral homes, crematoriums, ashes halls, cemeteries, funeral service stations, funeral vehicles and other fixed and mobile funeral places.

2 Normative references

The following documents are essential for the application of this document. For dated references, only the dated version applies to this article Pieces. For undated references, the latest version (including all amendments) applies to this document.

GB/T 23287 Funeral terms

3 Terms and definitions

The terms and definitions defined in GB/T 23287 and the following apply to this document.

Total bacterial count Samples collected in the air of public places, or public supplies and appliances are sampled and counted on a nutrient agar medium after $36\text{ }^{\circ}\text{C} \pm$ the total number of mesophilic aerobic and facultative anaerobic colonies grown at $1\text{ }^{\circ}\text{C}$ for 48 h.

Coliforms

Gram-negative *Bacillus* spp. Capable of fermenting lactose, acid production, gas production, aerobic and facultative anaerobic fermentation at $37\text{ }^{\circ}\text{C}$ for 24 h.

Staphylococcus aureus it grows well on Baird Parker medium or blood plate medium, decomposes mannitol to produce acid, and is positive for plasma coagulase Sexual *Staphylococcus*.

Streptococcus hemolyticus it belongs to the genus *Streptococcus* and is a Gram-positive bacterium. It breaks down glucose, produces acid and does not produce gas, and produces hemolytic circles on blood plates.

Impacting method

The impact air microbiological sampler is used to generate high-speed air flow through the slits or small holes, so that the micro-suspensions suspended in the air are generated.

The matter was collected on a nutrient agar plate, and the method for measuring the total number of colonies was obtained after culturing in the laboratory.

Natural sinking method the nutrient agar plate was exposed to the air, and the microorganisms naturally settled on the plate according to the effect of gravity. After the laboratory culture, the colonies were obtained.

Method of measuring totals.

4.1 Detection method

The total number of bacteria in the air at the funeral site was determined by impact method or natural sedimentation method sampling, nutrient agar medium culture count.

4.2.1 Instruments and equipment

Six-stage sieve impact air microbiological sampler, high-pressure steam sterilizer, constant temperature incubator, refrigerator, flat dish (90 mm diameter).

4.2.2 Medium

4.2.2.1

Ingredients of nutrient agar medium.

Peptone 10.0 g

Beef paste 3.0 g

Sodium chloride 5.0 g Agar 15.0 g 1000 mL of distilled water

4.2.2.2

Preparation method. after mixing the above ingredients, heat and dissolve, adjust the pH value to 7.2 ~ 7.6, set the volume to 1000 mL, and pressurize at 121 °C Sterilize for 20 min. Pour the sterilized nutritional agar into a petri dish with a diameter of 90 mm in 15 mL, and set it at 4 °C for use.

4.2.3.1 Sampling points

Set the sampling point according to the size and location of the room. The sampling layout method is. when the indoor area is ≤ 30 m², set 3 points of the inner, middle and outer diagonals, the inner and outer points are located 1 m away from the wall; when the indoor area is > 30 m², 4 corners and 5 points in the center are set, and the 4 corners are located 1 m away from the wall.

The sampling point is 1.2 m to 1.5 m above the ground.

4.2.3.2 Sampling method

When sampling, place the six-stage sieve impact microbiological sampler at each sampling point, the flowmeter is set to 28.3 L/min, and the sampling time is 5 min ~ 15 minutes, cover the dish immediately after sampling.

4.2.4 Inspection steps

The nutrient agar plate after collecting bacteria was placed in a $36^{\circ}\text{C} \pm 1^{\circ}\text{C}$ incubator, and the colonies were counted after 48 h of culture.

After the test sampling is completed, the same batch of unused medium should be cultured at the same time as the above test sample or cultured after inoculation, as negative Contrast. If there is bacterial growth in the negative control group, it means that the culture medium used is contaminated and the test is invalid.

Retest.

4.2.5 Results Report

4.2.5.1

Calculation of the total number of bacteria at the sampling point. count the colonies, record the results and calculate the total number of bacteria in the air according to the following formula.

In the formula.

Q-the total number of bacteria in the air, in units of colony forming units per cubic meter (cfu/m³);

N-the total number of colonies on the plate, the unit is colony forming unit (cfu);

L-gas production per minute, the unit is liter per minute (L/min);

T-Sampling time in minutes (min).

4.2.5.2

Measurement results of total bacteria in a region. The measurement results of total bacteria in the air in a region are determined according to the bacteria in all sampling points in the region.

The maximum of the total measured values is given.

4.3.1 Instruments and equipment

Autoclave, thermostatic incubator, plate (90 mm diameter), sampling rack.

4.3.2 Medium

See 4.2.2.

4.3.3 Sampling

4.3.3.1

Sampling point. see 4.2.3.1.

4.2.3.1 Sampling method. Place the nutrient agar plate at the sampling point, open the lid of the dish, and expose for 5 min.

4.3.4 Inspection steps

See 4.2.4.