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**NATIONAL STANDARD OF THE
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**Food additives -- Benzaldehyde
(English Translation)**

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Table of Contents

- 1 Scope
- 2 Chemical name, molecular formula, structural formula and relative molecular mass
 - 2.1 Chemical name
 - 2.2 Molecular formula
 - 2.3 Structural formula
 - 2.4 Relative molecular mass
- 3 Technical requirements

1 Scope

This standard applies to toluene, dichloromethyl benzene or cinnamaldehyde as raw materials made of food additives benzaldehyde.

2.1 Chemical name

Benzaldehyde

2.2 Molecular formula

C₇H₆O

2.4 Relative molecular mass

106.12 (according to 2007 International Relative Atomic Quality)

3 Technical requirements

3.1

sensory requirements. should be consistent with the provisions of Table 1.

Table 1 sensory requirements

The project requires a test method Colorless to yellow Tissue state liquid the sample was placed in a colorimetric tube and visually observed Aroma sweet, strong almond aroma
GB/T 14454.2

3.2

Physical and chemical indicators. should be consistent with the provisions of Table 2.

Table 2 Physical and chemical indicators

Item Index Test Method Benzaldehyde content, w /% ≥ 98.0 Appendix A Acid value (in KOH)/(mg/g) ≤ 5.0 GB/T 14455.5 Refractive index (20 ° C) 1.544 ~ 1.547 GB/T 14454.4 Relative density (25 ° C/25 ° C) 1.040 ~ 1.047 GB/T 11540 Chloride a Negative reaction GB/T 14454.12 a Determination of the product with dichloromethylbenzene as raw material.

Appendix A

Determination of benzaldehyde content A.1 Instruments and equipment A.1.1 chromatograph. according to GB/T 11538-2006 in Chapter 5 of the provisions.

A.1.2 Column. Capillary column.

A.1.3 Detector. Hydrogen flame ionization detector.

A.2 Determination method Area normalization method. according to GB/T 11538-2006 10.4 determination of content.

A.3 repeatability and result representation According to GB/T 11538-2006 11.4 implementation of the provisions.

Food additives Benzaldehyde Typical gas chromatograms (area normalization) See Appendix B.

Appendix B

Food Additives Benzaldehyde Typical Gas Chromatography (Area normalization method)

B.1 Food Additive Benzaldehyde Typical Gas Chromatography Food additives Benzaldehyde Typical gas chromatograms are shown in Figure B.1.

Figure B.1 Food additive Benzaldehyde Typical gas chromatogram

B.2 Operating conditions B.2.1 Column. capillary column, length 30m, inner diameter 0.32mm.

B.2.2 Stationary phase. (5% phenyl) methylpolysiloxane.

B.2.3 Film thickness. 0.25 μm .

B.2.4 Chromatographic furnace temperature. 140 °C constant temperature.

B.2.5 Inlet temperature. 250 ° C.

B.2.6 Detector temperature. 250 ° C.

B.2.7 Detector. Hydrogen flame ionization detector.

B.2.8 Carrier gas. nitrogen.

B.2.9 Carrier gas flow. about 30 mL/min.

B.2.10 Injection volume. 0.2 μL .

B.2.11 Split ratio. 1/75.