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**NATIONAL STANDARD OF THE
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**Food additives. 2-methyl butyrate
(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 2-methyl butanol as raw material prepared by the food additive 2-methyl butyric acid.

2.1 Chemical name

2-methyl butyric acid

2.2 Molecular formula

C₅H₁₀O₂

2.4 Relative molecular mass

102.13 (according to the 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 Color colorless to pale yellow State liquid Place the sample in a colorimetric tube with visual inspection Observation of law Aroma pungent spicy goat cheese aroma, diluted with fruit fruity 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 Solubility (25 ° C) 1 mL The sample was dissolved in 1 mL of 95% by volume ethanol. GB/T 14455.3 2-methyl butyric acid content, w /% $\geq$ 98.0 Appendix A Refractive index (20 ° C) 1.404 ~ 1.408 GB/T 14454.4 Relative density (25 °C/25 °C) 0.931 ~ 0.936 GB/T 11540 Appendix A Determination of 2 - methyl butyric acid 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 2-Methyl Butyric Acid Typical Gas Chromatography (Area Normalization)
See Appendix B.

Appendix B

Food additive 2 - methyl butyric acid Typical gas chromatogram (Area normalization method) B.1 Food additive 2-methyl butyric acid Typical gas chromatogram Food additives 2-methyl butyric acid Typical gas chromatograms are shown in Figure B.1.

Figure B.1 Food additive 2-methyl butyric acid Typical gas chromatogram

B.2 Operating conditions B.2.1 Column. capillary column, 50m long, inner diameter 0.2mm.

B.2.2 Stationary phase. Polyethylene glycol.

B.2.3 Film thickness. 0.2 μ m.

B.2.4 Chromatographic furnace temperature. 150 °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 rate. about 20 mL/min.

B.2.10 Injection volume. 1 μ L.

B.2.11 Split ratio. 1/100.