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

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**Food additives -- Ethyl phenylacetate
(English Translation)**

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1 Scope

This standard applies to phenylacetic acid and phenylethyl alcohol as raw materials prepared by the food additives phenyl phenylethyl benzene.

2.1 Chemical name

2-phenylethyl phenylacetate

2.2 Molecular formula

C₁₆H₁₆O₂

2.4 Relative molecular mass

240.3 (according to 2007 International relative atomic mass)

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 pale yellow State liquid or solid Place the sample in a colorimetric tube Observation method Aroma rose - hyacinth 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 Solubility (25 ° C) 1 mL The sample was completely dissolved in 4 mL of 90% by volume ethanol. GB/T 14455.3 Phenylacetate content, w /% $\geq$ 98.0
Appendix A Acid value (in KOH)/(mg/g) $\leq$ 1.0 GB/T 14455.5 Refractive index (20 ° C) 1.545 ~ 1.551 GB/T 14454.4 Relative density (25 ° C/25 ° C) 1.078 ~ 1.083 GB/T 11540
Appendix A Determination of Phenylethyl Benzene Ester 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 Phenylacetate Typical gas chromatograms (area normalization) See Appendix B.

Appendix B

Food additive Phenylethyl phenylacetate Typical gas chromatogram (Area normalization method) B.1 Food Additive Phenylacetate Typical Gas Chromatography Food additives Phenylethyl phenylacetate Typical gas chromatograms are shown in Figure B.1.

Figure B.1 Food additives Phenylethylphenacetate Typical gas chromatograms

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 μ m.

B.2.4 Temperature of the chromatographic furnace. 120 °C constant temperature 10min, and then linear program temperature from 120 °C ~ 250 °C, the rate of 20 °C/min, and finally 250 °C constant temperature 10min.

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. 20 mL/min.

B.2.10 Injection volume. 0.2 μ L.

B.2.11 Split ratio. 1/100.