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GB 28361-2012

Food additives -- Ethyl phenylacetate

(English Translation)

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1 Scope

This standard applies to phenylacetic acid and ethanol as raw materials prepared by the food additives ethyl phenylacetate.

2.1 Chemical name

Phenyl ethyl acetate

2.2 Molecular formula

C10H12O2

2.4 Relative molecular mass

164.2 (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 Colorless or almost colorless State liquid Place the sample in a colorimetric tube Observation method Aroma Honey - like Sweetness 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

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Item Index Test Method Solubility (25 ° C) 1 mL of the sample is fully dissolved in 3 mL of 70% by volume ethanol. GB/T 14455.3 Ethyl phenylacetate content, w /% >= 97.0 Appendix A Acid value (in KOH)/(mg/g) <= 1.0 GB/T 14455.5 Refractive index (20 ° C) 1.494 ~ 1.500 GB/T 14454.4 Relative density (25 °C/25 °C) 1.027 ~ 1.032 GB/T 11540 Appendix A Determination of ethyl phenylacetate 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 Chromatography (Area Normalization) See Appendix B.

Appendix B

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

Figure B.1 Food additive Phenylacetate 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..200 °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 30 mL/min.

B.2.10 Injection volume. 0.2 μL.

B.2.11 Split ratio. 1/75.

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