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

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 - 2.1 Chemical name
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1 Scope

This standard applies to coumarin as raw material obtained by the food additive dihydrogumarin.

2.1 Chemical name

3,4-dihydro (2H) -1-benzopyran-2-one

2.2 Molecular formula

C₉H₈O₂

2.4 Relative molecular mass

148.16 (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 or solid the sample was placed in a colorimetric tube and visually observed Aroma coconut - like 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 Dihydrocoumarin content, w /% ≥ 99.0 Appendix A Acid value (in KOH)/(mg/g) ≤ 5.0 GB/T 14455.5 Refractive index (20 ° C) 1.555 ~ 1.559 GB/T 14454.4 Relative density (25 ° C/25 ° C) 1.186 ~ 1.192 GB/T 11540 Appendix A Determination of Dihydro Coumarin 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 additive dihydrogu coumarin Typical gas chromatogram (area normalization) See Appendix B.

Appendix B

Food additive dihydrogu coumarin typical gas chromatogram (Area normalization method)

B.1 Food Additive Dihydrocoumarin Typical Gas Chromatography Food additives Dihydro coumarin Typical gas chromatograms are shown in Figure B.1.

Figure B.1 Food additive dihydrogu coumarin 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. linear program temperature from 100 °C ~.200 °C, the rate of 10 °C/min.

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 Pre-column pressure. 90 kPa.

B.2.10 Injection volume. about 0.2 μL .

B.2.11 Split ratio. 1/100.