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CCS C 53



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

GB 29957-2013

**Food additive -- Dihydro-ionone standards: food additives
specified standards of food additives dihydro-ionone
(English Translation)**

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1 Scope

This standard applies to the beta- ionone materials obtained food additive dihydro -beta- ionone.

2.1 Chemical Name

4- (2,6,6-trimethyl-1-cyclohexen-yl) -3-butyl-2-one Formula 2.2 C₁₃H₂₂O

2.4 Relative molecular mass

194.32 (according to 2007 international relative atomic mass)

3.1 Sensory requirements

Sensory requirements shall comply with the requirements of Table 1.

Table 1 Sensory requirements

Project requires test methods Colorless to pale yellow color of the sample was placed inside color than the tube, were visually observed Liquid state Fruity aroma, with a woody bottom rhyme GB/T 14454.2

3.2 Physical and Chemical Indicators

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

Table 2. Physical and chemical indicators

Item Index Test Method Content (dihydro and tetrahydro -beta- -beta- ionone sum), w /% >= 99.0 Appendix A Refractive index (20 °C) 1.479 ~ 1.485 GB/T 14454.4 the relative density

(25 °C/25 °C) 0.920 ~ 0.930 GB/T 11540 Appendix A Determination dihydro-ionone content -beta-A.1 instruments and equipment A.1.1 chromatograph. According to GB/T 11538-2006 provisions in Chapter 5.

A.1.2 Column. capillary column.

A.1.3 Detector. Hydrogen flame ionization detector.

A.2 Determination

Area normalization method. According to GB/T 11538-2006 10.4 Determination.

A.3 repeatability and results are shown According to GB/T 11538-2006 provisions in 11.4, shall comply with the requirements.

Food Additives dihydro -beta- ionone gas chromatograph (area normalization method) See Appendix B.

Appendix B

Food additives dihydro ionone gas chromatogram -beta-(Area normalization method) B.1 food additives dihydro ionone -beta- gas chromatogram

Figure B.1.

1-- tetrahydro -beta- ionone;

2-- dihydro -beta- ionone.

B.1 food additives dihydro ionone -beta- gas chromatogram B.2 operating conditions B.2.1 Column. capillary column, length 30 m, an inner diameter of 0.25 mm.

B.2.2 stationary phase. modified polyethylene glycol.

B.2.3 film thickness. 0.25 µm.

B.2.4 chromatography oven temperature. 120 °C constant temperature 2 min; then linear temperature program from 120 °C ~ 200 °C, the rate of 5 °C/min; final at 200 °C thermostat 5 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. 69 kPa.

B.2.10 Injection volume. 0.2 µL.

B.2.11 split ratio. 100?1.