Chinastandards.org

CCS X 42

NATIONAL STANDARD OF THE

PEOPLE'S REPUBLIC OF CHINA

GB 1886.186-2016

Replacing GB 1905-2000

Food additive -- Sorbic acid

食品安全国家标准 食品添加剂 山梨酸

(English Translation)

Issued on: August 31, 2016

Issued by: National Health and Family Planning Commission

Preview: page 1 of 4 shown, 3 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/gb-1886-186-2016

Chinastandards.org

Table of Contents

1 Scope
2 Chemical name, molecular formula, molecular mass and structural formula
2.1 Chemical Name
2.3 Formula
2.4 Relative molecular mass
3 Technical requirements
3.1 Sensory requirements
3.2 Physical and Chemical Indicators

1 Scope

This standard applies to cyclohexyl propionic acid or cinnamic acid methyl ester and allyl alcohol as raw material additives chemical reaction of 3-cyclohexyl prepared food Acid allyl.

2.1 Chemical Name

3-cyclohexyl-propionic acid allyl Formula 2.2 C12H20O2

2.4 Relative molecular mass

196.29 (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 Color colorless Liquid state the sample was placed in a cuvette, were visually observed Aroma of pineapple-like aroma GB/T 14454.2

3.2 Physical and Chemical Indicators

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

GB 1886.189-2016

Table 2. Physical and chemical indicators

Item Index Test Method Solubility (25 °C) 1mL sample soluble in 4mL80% (volume fraction) ethanol GB/T 14455.3 3-cyclohexyl-propionic acid allyl content, w /% >= 98.0 Appendix A

Preview: page 2 of 4 shown, 3 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/gb-1886-186-2016

Acid value (in dollars KOH)/(mg/g) <= 5.0 GB/T 14455.5 Refractive index (20 °C) 1.457 ~ 1.462 GB/T 14454.4 the relative density (25 °C/25 °C) 0.945 ~ 0.950 GB/T 11540 Allyl alcohol, w /% <= 0.1 Appendix A GB 1886.189-2016 Appendix A Determination of 3-cyclohexyl-allyl propionate and allyl alcohol content 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 3-cyclohexyl-propionic acid allyl gas chromatograph and operating conditions, see Appendix B.

GB 1886.189-2016

Appendix B

Food Additive 3-cyclohexyl-propionic acid allyl gas chromatograph and operating conditions (Area normalization method) Food additives B.1 3-cyclohexyl-propionic acid allyl gas chromatogram Food Additive 3-cyclohexyl-propionic acid allyl gas chromatography is shown in Figure B.1.

Explanation.

1 --- allyl alcohol;

2 --- 3-cyclohexyl-propionic acid allyl.

Food additives Figure B.1 3-cyclohexyl-propionic acid allyl gas chromatogram B.2 operating conditions B.2.1 Column. capillary column length 30m, an inner diameter of 0.32mm.

B.2.2 stationary phase. (5% phenyl) - methyl polysiloxane.

B.2.3 film thickness. 0.25μm.

B.2.4 chromatography oven temperature.200 °C constant temperature.

B.2.5 Inlet temperature.200 °C.

GB 1886.189-2016

B.2.6 detector temperature. 250 °C.

B.2.7 Detector. Hydrogen flame ionization detector.

B.2.8 carrier gas. nitrogen.

Preview: page 3 of 4 shown, 3 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/gb-1886-186-2016

Chinastandards.org

Before B.2.9 column pressure. 50kPa.

B.2.10 Injection volume. 0.2μL.

B.2.11 split ratio. 75.1.

Preview: page 4 of 4 shown, 3 in the full document. Complete English PDF, instant download:
https://chinastandards.org/standards/gb-1886-186-2016