

ICS 67.020
CCS C 53



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

GB 29986-2013

**Food additive -- 6-methyl-5-hept -2-one
(English Translation)**

Issued on: January 1, 1970

Implemented on: January 1, 1970

**Issued by: National Health and Family Planning Commission of the
People's Republic of China**

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 the acetone and acetylene for raw materials of food additives 6-methyl-hept-5-ene-2-one.

2.1 Chemical Name

6-methyl-hept-5-en-2-one Formula 2.2 C₈H₁₄O

2.4 Relative molecular mass

126.19 (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 to pale yellow color of the sample is placed over the inner tube, were visually observed Liquid state Strong aroma fat flavor, green citrus-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.

Table 2. Physical and chemical indicators

Item Index Test Method 6-methyl-hept-5-en-2-one content, w /% ≥ 98.0 Appendix A Acid value (in dollars KOH)/(mg/g) ≤ 3.0 GB/T 14455.5 Refractive index (20 °C) 1.435 ~ 1.445

GB/T 14454.4 the relative density (25 °C/25 °C) 0.846 ~ 0.854 GB/T 11540 Appendix A Determination of 6-methyl-hept-5-en-2-one 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 6-methyl-hept-5-ene-2-one gas chromatograph (area normalization method) See Appendix B.

Appendix B

Food Additive 6-methyl-hept-5-en-2-one GC FIG.

(Area normalization method) Food additives B.1 6-methyl-hept-5-en-2-one GC FIG.

Figure B.1.

Figure B.1 food additive 6-methyl-hept-5-en-2-one GC FIG.

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. 100% dimethyl polysiloxane.

B.2.3 film thickness. 0.25 µm.

B.2.4 chromatography oven temperature. 100 °C constant temperature.

B.2.5 Inlet temperature. 200 °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. 0.08 MPa.

B.2.10 Injection volume. 0.2 µL.

B.2.11 split ratio. 100:1.