



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

GB 1886.28-2016

Replacing GB 8273-2008

Food additive -- Sodium D-isoascorbate

食品安全国家标准 食品添加剂 D-异抗坏血酸钠

(English Translation)

Issued on: August 31, 2016

Implemented on: January 1, 2017

Issued by: National Health and Family Planning Commission

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 food by the 2-acetyl-butyrolactone -gamma- and carbon disulfide, or by the thiocarboxamide and bromoacetyl-propanol as raw materials obtained Additives 5-Hydroxyethyl 4-methylthiazole.

2.1 Chemical Name

Methyl-5-thiazole ethanol Formula 2.2 C₆H₉NOS

2.4 Relative molecular mass

143.21 (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 status Colorless to pale yellow, turn brown when aging Viscous oily liquid the sample was placed in a cuvette, were visually observed Aroma beef, nut-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 1886.293-2016

Table 2. Physical and chemical indicators

Item Index Test Method Hydroxyethyl 4-methylthiazole-5- content, w /% ≥ 98.0 Appendix A
Acid value (in dollars KOH)/(mg/g) ≤ 3.0 GB/T 14455.5 Refractive index (20 °C) 1.540 ~
1.556 GB/T 14454.4 the relative density (25 °C/25 °C) 1.196 ~ 1.210 GB/T 11540 GB
1886.293-2016 Appendix A 5- hydroxyethyl Determination of the content of
4-methylthiazole 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 5- hydroxyethyl 4-methylthiazole gas chromatograph and operating
conditions, see Appendix B.

GB 1886.293-2016

Appendix B

Food additives 5- Hydroxyethyl 4-methylthiazole and operating conditions of a gas
chromatograph (Area normalization method) B.1 food additives Hydroxyethyl
4-methylthiazole-5- gas chromatogram Food additives Hydroxyethyl 4-methylthiazole-5- gas
chromatography is shown in Figure B.1.

Figure B.1 food additives Hydroxyethyl 4-methylthiazole-5- gas chromatogram

B.2 operating conditions B.2.1 Column. capillary column length 30m, an inner diameter of
0.50mm.

B.2.2 stationary phase. (5% phenyl) -95% dimethylpolysiloxane.

B.2.3 film thickness. 0.50 μ m.

B.2.4 chromatography oven temperature. 170 °C constant temperature 10min, then a linear
temperature program from 170 °C to 200 °C, the rate of 10 °C/min, and finally 200 °C
constant temperature 15min.

B.2.5 Inlet temperature. 250 °C.

B.2.6 detector temperature. 260 °C.

B.2.7 Detector. Hydrogen flame ionization detector.

B.2.8 carrier gas. nitrogen.

B.2.9 carrier gas flow rate. pre-column pressure 50kPa.

B.2.10 Injection volume. 0.2 μ L.

B.2.11 split ratio. 30.1.