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

GB 29962-2013

Food additive -- 2-mercapto-3-butanol

食品添加剂 2-巯基-3-丁醇 2

(English Translation)

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1 Scope

This standard applies to the 2-mercapto-3-butanone for raw materials of food additive 2-mercapto-3-butanol.

2.1 Chemical Name

2-mercapto-3-butanol Formula 2.2 C₄H₁₀OS

2.4 Relative molecular mass

106.18 (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, the specimen was placed inside color than the tube, were visually observed Liquid state Strong aroma pungent odor, diluted there Congxiang, meaty 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 2-mercapto-3-butanol content (sum of the two isomers), w /% ≥ 99.0 Appendix A Refractive index (20 °C) 1.476 ~ 1.485 GB/T 14454.4 the relative density

(25 °C/25 °C) 1.010 ~ 1.017 GB/T 11540 Appendix A Determination of 2-mercapto-3-butanol 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 2-mercapto-3-butanol gas chromatograph (area normalization method) See Appendix B.

Appendix B

Food additive 2-mercapto-3-butanol gas chromatogram (Area normalization method) B.1 food additive 2-mercapto-3-butanol gas chromatogram

Figure B.1.

1--2- mercapto-3-butanol isomer 1;

2--2--mercapto-3-butanol isomer 2.

Figure B.1 food additive 2-mercapto-3-butanol 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. polyethylene glycol.

B.2.3 film thickness. 0.25 µm.

B.2.4 chromatography oven temperature. 120 °C constant temperature 10 min; then linear temperature program from 120 °C ~ 200 °C, the rate of 10 °C/min; most After 200 °C heated 20 min.

B.2.5 Inlet temperature. 240 °C.

B.2.6 detector temperature. 240 °C.

B.2.7 Detector. Hydrogen flame ionization detector.

B.2.8 carrier gas. nitrogen.

B.2.9 pre-column pressure. 60 kPa.

B.2.10 Injection volume. about 0.2 µL.

B.2.11 split ratio. 100?1.