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

GB 28340-2012

**National food safety standards Food Additives --
3-Methylthiopropanol
(English Translation)**

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1 Scope

This standard applies to acrolein as raw material or propylene alcohol and methyl mercaptan as raw material prepared by the food additive 3 - methylthiopropanol.

2.2 Molecular formula

C₄H₁₀OS

2.3 Structural formula

CH₃SCH₂CH₂CH₂OH

2.4 Relative molecular mass

106.18 (according to 2007 International Relative Atomic Quality)

3 Technical requirements

3.1

sensory requirements. should be consistent with the provisions of Table 1.

Table 1 sensory requirements

The project requires a test method Color can be yellow State liquid the sample was placed in a colorimetric tube and visually observed A strong aroma of sweetness, soup or meat - like aroma GB/T 14454.2

3.2

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

Table 2 Physical and chemical indicators

Item Index Test Method 3-methylthiopropanol content, w /% ≥ 98.0 Appendix A Refractive index (20 ° C) 1.483 ~ 1.493 GB/T 14454.4 Relative density (25 °C/25 °C) 1.023 ~ 1.029 GB/T 11540 Appendix A Determination of 3 - methylthiopropanol content A.1 Instruments and equipment A.1.1 chromatograph. according to GB/T 11538-2006 in Chapter 5 of the provisions.

A.1.2 Column. Capillary column.

A.1.3 Detector. Hydrogen flame ionization detector.

A.2 Determination method Area normalization method. according to GB/T 11538-2006 10.4 determination of content.

A.3 repeatability and result representation According to GB/T 11538-2006 11.4 implementation of the provisions.

Food Additive 3-Methylthiopropanol Typical Gas Chromatography (Area Normalization) See Appendix B.

Appendix B

Food additive 3 - methylthiopropanol Typical gas chromatogram (Area normalization method) B.1 Food Additive 3-Methylthiopropanol Typical Gas Chromatography Food additives 3-methylthiopropanol Typical gas chromatograms are shown in Figure B.1.

Figure B.1 Food additive 3-methylthiopropanol Typical gas chromatogram

B.2 Operating conditions B.2.1 Column. capillary column, length 30m, inner diameter 0.25mm.

B.2.2 Stationary phase. Polyethylene glycol.

B.2.3 Film thickness. 0.25 μm .

B.2.4 Chromatographic furnace temperature. 160 °C constant temperature 10min, and then linear temperature from 160 °C ~.200 °C, the rate of 10 °C/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. 70 kPa.

B.2.10 Injection volume. 0.2 μL .

B.2.11 Split ratio. 1/100.