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

GB 29975-2013

**Food additive -- Difurfuryl disulfide
(English Translation)**

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1 Scope

This standard applies to the furfuryl mercaptan for raw materials of food additive titanium furfuryl disulfide.

2.1 Chemical Name

Difurfuryl disulfide Formula 2.2 C₁₀H₁₀O₂S₂

2.4 Relative molecular mass

226.31 (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 pale yellow (long home easily become red sauce) than the sample is placed inside the color tube, were visually observed State oily liquid aroma with sulfur breath, after dilution with a strong aroma of baking, barbecue Incense, nuts 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 Two-furfuryl disulfide content, w /% >= 96.0 Appendix A Refractive

index (20 °C) 1.585 ~ 1.598 GB/T 14454.4 the relative density (25 °C/25 °C) 1.229 ~ 1.248
GB/T 11540 Appendix A Determination of titanium content of furfuryl disulfide 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 additive titanium furfuryl disulfide gas chromatograph (area normalization method)
See Appendix B.

Appendix B

Food additive titanium furfuryl disulfide gas chromatogram (Area normalization method) B.1
food additive titanium furfuryl disulfide gas chromatogram

Figure B.1.

Figure B.1 food additive titanium furfuryl disulfide gas chromatogram

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

B.2.2 stationary phase. 5% diphenyl-95% dimethylpolysiloxane.

B.2.3 film thickness. 1.5 μm.

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

B.2.5 Inlet temperature. 250 °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. 20 kPa.

B.2.10 Injection volume. about 0.2 μL.

B.2.11 split ratio. 100?1.