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

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**Food additive -- 2, 5-dimethyl pyrazine
(English Translation)**

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 - 2.1 Chemical Name
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1 Scope

This standard applies to propylene oxide and 1,2-propanediamine for raw materials of food additives 2,5-dimethyl pyrazine.

2.1 Chemical Name

2,5-dimethyl pyrazine Formula 2.2 $C_6H_8N_2$

2.4 Relative molecular mass

108.14 (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 Earthy aroma, potato-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 2,5-dimethyl pyrazine content, w /% ≥ 98.0 Appendix A Refractive index (20 °C) 1.497 ~ 1.503 GB/T 14454.4 the relative density (25 °C/25 °C) 0.982 ~ 1.000

GB/T 11540 Appendix A Determination of Content of 2,5-dimethyl pyrazine 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 2,5-dimethyl pyrazine gas chromatograph (area normalization method) See Appendix B.

Appendix B

2,5-dimethyl pyrazine food additive gas chromatogram (Area normalization method) B.1

2,5-dimethyl pyrazine food additive gas chromatogram

Figure B.1.

Figure B.1 2,5-dimethyl pyrazine food additive 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. 50 °C constant temperature 5 min; then linear temperature programmed from 50 °C ~ 150 °C, the rate of 3 °C/min; final 150 °C heated 10 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.