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

GB 29977-2013

Food additive -- 2-acetyl pyrrole

食品添加剂 2-乙酰基吡咯

(English Translation)

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1 Scope

This standard applies to the pyrrole and N, N- dimethylacetamide for raw materials of food additive 2-acetyl pyrrole.

2.1 Chemical Name

2-acetyl-pyrrole

Formula 2.2

C₆H₇ON

2.4 Relative molecular mass

109.13 (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 white to light yellow the sample is placed on a clean white paper, were visually observed State crystallization Fragrant aroma of bread, fragrant walnut, licorice-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-acetyl-pyrrole content, w /% $\geq$ 97.0 Appendix A Melting point ($^{\circ}\text{C}$) 87 ~ 93 GB/T 14457.3 Appendix A Determination of the content of 2-acetyl-pyrrole 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.

Sample Preparation. Weigh 1 g sample was dissolved in 10 mL of absolute ethanol, shake spare.

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-acetyl-pyrrole gas chromatograph (area normalization method) See Appendix B.

Appendix B

2-acetyl-pyrrole food additive gas chromatogram (Area normalization method) B.1

2-acetyl-pyrrole food additive gas chromatogram

Figure B.1.

1-- ethanol;

2--2- acetyl pyrrole.

Figure B.1 Food Additives 2-acetyl-pyrrole 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. 180 $^{\circ}\text{C}$ constant temperature 10 min; then linear temperature program from 180 $^{\circ}\text{C}$ ~ 200 $^{\circ}\text{C}$, the rate of 10 $^{\circ}\text{C}/\text{min}$; most After 200 $^{\circ}\text{C}$ heated 20 min.

B.2.5 Inlet temperature. 240 $^{\circ}\text{C}$.

B.2.6 detector temperature. 240 $^{\circ}\text{C}$.

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 μ L.

B.2.11 split ratio. 100?1.