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

GB 1886.36-2015

Replacing GB 11960-2008

**National Food Safety Standard -- Food Additives -- Oil of
spearmint**

食品安全国家标准 食品添加剂 留兰香油

(English Translation)

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Foreword

This standard replaces GB 11960-2008 "Food Additives spearmint oil." this standard compared with GB 11960-2008, the main changes are as follows.

--- Standard name was changed to "national food safety standards for food additives spearmint";

--- Modify the specifications of the relative density of 60%.

National Food Safety Standard Food Additives spearmint

1 Scope

This standard applies by steam distillation from the flowering herb spearmint (*Menthaspicata*L.) Ground partially extracted oil, After distillation process to obtain the minimum amount of ketone containing 60% and 80% of two specifications of food additives spearmint oil.

2.1 Sensory requirements

Sensory requirements shall comply with the requirements of Table 1.

Table 1 Sensory requirements

Project requires test methods Light yellow to green color yellow Liquid state the sample was placed in a cuvette, were visually observed Aroma of spearmint leaf aroma and flavor characteristics GB/T 14454.2

2.2 Physical indicators

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

Table 2. Physical and chemical indicators

project

index

Containing 60% of the amount of ketone containing an amount of 80% Testing method the relative density (20 °C/20 °C) 0.910 ~ 0.938 0.942 ~ 0.954 GB/T 11540 Refractive index (20 °C) 1.4850 ~ 1.4910 1.4880 ~ 1.4960 GB/T 14454.4 Optical rotation (20 °C) -70 ° ~ -53 ° -59 ° ~ -50 ° GB/T 14454.5 Miscibility (20 °C) 1 volume of the sample soluble in 1 vol of 80% (volume fraction) Ethanol, as a clear solution GB/T 14455.3 Ketone containing an amount a /% >= 60.0 80.0 GB/T in the third method 14454.13-2008 Heavy metals (Pb)/(mg/kg) <= 10.0 GB 5009.74 Arsenic (As)/(mg/kg) <= 3.0 GB 5009.11 or GB 5009.76 a food additive spearmint oil gas chromatogram (area normalization method) See Appendix A.

Appendix A

Food Additives spearmint oil gas chromatogram (Area normalization method) A.1 Food additives spearmint oil gas chromatogram Food Additives spearmint oil and gas chromatography is shown in Figure A.1.

Explanation.

- 1 --- limonene;
- 2 --- 1,8 cineole;
- 3 --- octanol -3;
- 4 --- menthone;
- 5 --- new menthol;
- 6 --- dihydro-carvone;
- 7 --- menthol;
- 8 --- carvone;
- . 9 --- acetic ester parsley.

Figure A.1 Food additives spearmint oil gas chromatogram

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

A.2.2 stationary phase. polyethylene glycol.

A.2.3 film thickness. 0.25µm.

A.2.4 chromatography oven temperature. 100 °C constant temperature 2min, then linear temperature programmed from 100 °C ~ 135 °C, the rate of 2.5 °C/min; linear again Temperature program from 135 °C ~ 180 °C, the rate of 6 °C/min; and finally at 180 °C constant temperature 10min.

A.2.5 inlet temperature. 230 °C.

A.2.6 detector temperature. 250 °C.

A.2.7 Detector. Hydrogen flame ionization detector.

A.2.8 Carrier gas. nitrogen.

Before A.2.9 column pressure. 103.42kPa.

A.2.10 Injection volume. 0.1μL.

A.2.11 Split ratio. 100.1.