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

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Fat in ice cream and frozen desserts -- Roese-Gottlieb method

冰淇淋和冷冻甜食品中的脂肪测定 哥特里-罗紫法

(English Translation)

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Foreword

This standard was proposed by the China Business Federation.

This standard is under the jurisdiction of the National Frozen Drinks Standardization Technical Committee (SAC/TC497).

This standard was drafted. Shenzhen Huajian Testing Technology Co., Ltd., China Business Federation Commercial Standards Center, Qingdao Huajian Testing Technology Co., Ltd., Suzhou Huajian Testing Technology Co., Ltd.

1 Scope

This standard specifies the Gothic-Royal method for determining the fat content of ice cream and frozen sweet foods.

This standard applies to the determination of fat content in ice cream and frozen sweet foods.

2.1 Reagent materials

2.1.1

Ammonia. Concentrate.

2.1.2

Alcohol. 95%, no residue after evaporation.

2.1.3

Ether. no peroxide, no residue after evaporation.

2.1.4

Petroleum ether. boiling range 30 ° C ~ 60 ° C, no residue after evaporation.

2.1.5

Water. Deionized water.

2.2 Instrumentation

2.2.1

Electronic balance. accurate to 0.0001g.

2.2.2

Fat extraction flask or test tube. 250 mL.

2.2.3

Pipette.

2.2.4

Water bath. with temperature control device and can maintain at 38 ° C $\pm$ 1 ° C.

2.2.5

Cork. Soaked in water for several hours and saturated.

2.2.6

Centrifuge.

2.2.7

Weighing pan. A metal dish with a diameter of 8.5cm~9.5cm and a height of 4.5cm~5.5cm or a 250mL glass beaker.

2.2.8

Dryer. At room temperature, there is a silica gel desiccant at the bottom.

2.2.9

Heating plate. steam bath or other heating equipment.

2.2.10

Pressurized hot air tank. keep the temperature at 70 ° C $\pm$ 1 ° C or the vacuum degree is greater than 50.8 cm, keep the temperature 70 ° C ~ 75 ° C true empty box.

3 Determination method

3.1

Accurately weigh 4g~5g of uniform sample, accurate to 0.0001g, directly into the fat extraction flask or test tube (2.2.2), so that Drain the solution to 10 mL with a free-flowing pipette (2.2.3), then concentrate the extracted sample into the flask below, and vortex.

Mix and mix, add 2mL ammonia water (2.1.1), mix well, put in water bath (2.2.4), heat at 60 ° C for 20min not Shake the tube while cooling.

3.2

Add 10 mL of alcohol (2.1.2) to the flask, block the bottle with a cork (2.2.5), and shake the flask for 15 s. Add 25 mL of diethyl ether (2.1.3) the first extraction was carried out, the stopper was blocked with a cork, the flask was shaken vigorously for 1 min, and if necessary, the cork was released to release the accumulated pressure. again 25 mL of petroleum ether (2.1.4) was added, the stopper was blocked with a cork, and the flask was vigorously shaken for 1 min. Put the flask into the speed of 600r/min