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

GB/T 22428.4-2008

Replacing GB/T 12102-1989

Glucose syrups -- Determination of dry matter

葡萄糖浆干物质测定

(English Translation)

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Foreword

This standard is identical with ISO 1742. 1980 "Determination of dry matter content of glucose syrup vacuum drying method" (in English), because of the more recent version Old, to meet the current needs, slightly adjusted structure, contents remain the same, only made editorial changes.

This standard replaces GB/T 12102-1989 "dry syrup glucose measurement method." this standard and GB/T 12102-1989 compared to major changes are as follows.

--- Standard name changed to "dry syrup glucose determination";

--- Improve the standard format, according to the International System of Units standardized units;

--- Added "8 test report." this standard is proposed and managed by China General Chamber of Commerce.

This standard was drafted. Chinese Chamber of Commerce Business Standard centers, food, Jiangnan University, China Starch Industry Association modified starch Professional Committee, Shandong Zhucheng promoting trade Corn Development Company Limited.

1 Scope

This standard specifies the method for the determination of dry matter content of glucose syrup vacuum drying.

This standard applies to dried glucose syrup, starch, sugar and fructose syrup solids.

Principle 2

After the sample was diluted with water, mixed with diatomaceous earth to a dry area increases, then placed in a temperature of 70 °C, the pressure does not exceed 3400Pa

true Air drying oven to give the residue of the sample quality.

3 Reagents

Use analytical grade reagents and distilled water or equivalent purity.

3.1

celite. The celite was washed repeatedly with water in an amount, with hydrochloric acid solution (3.2) was acidified with a Buchner funnel and filtered until the filtrate so Litmus paper red. Washed with water several times, until a pH value equal to or slightly larger than 4. The diatomite after washing dry naturally in the air Dry, before using the oven placed in 105 °C, under normal pressure and dried overnight, stored in airtight containers.

3.2

hydrochloric acid solution. per liter of water containing concentrated hydrochloric acid ($\rho_{20} = 1.19\text{g/mL}$) 1mL.

4 Instrument

4.1

Analytical balance.

4.2

Beaker. 100mL.

4.3

The dish. metal (does not occur in a chemical reaction under the conditions tested) or glassware, a depth of 75mm, diameter of 90mm, and with Closures.

4.4

glass stirring rod. length and weighing dish diameter considerably.

4.5

Electric vacuum oven. temperature can be constant at $70\text{ }^{\circ}\text{C} \pm 1\text{ }^{\circ}\text{C}$, and with a calibrated thermometer and a pressure gauge.

Inside the oven should be heated uniformly, and the vacuum pump remains closed after a certain vacuum within a few hours, the shelf inside the oven should be conducive to heat Weighing dish to pass.

4.6

vacuum pump. pressure inside the oven can be reduced to 3400Pa, or less.

4.7

drying system. the drying column filled with dry silica gel and assembled with a concentrated sulfuric acid gas scrubber connected to the composition, and in turn connected to an electric Air inlet of the vacuum oven.

There are plenty of valid within the desiccant and a thick porous plate. 4.8 dryer.

5.1 Sample preparation

Samples should be thoroughly mixed.

5.2 Weighing dish prepared

It weighs approximately 30g dried diatomaceous earth (3.1) in the weighing dish (4.3), the weighing pan, cover and stir bar (4.4) placed in an electric vacuum dry Dry box (4.5), during $70\text{ }^{\circ}\text{C} \pm 1\text{ }^{\circ}\text{C}$, under pressure does not exceed 3400Pa drying 5h. Drying the end, slowly through the air Through the drying system (4.7) into the oven, so that the internal pressure was returned to normal pressure. Before removing the weighing pan from the oven, cover the lid, stirring rod Placed thereon, together into the dryer (4.8) in the cooling 1h, weighing, accurate to 0.001g.

GB/T 22428.4-2008/ISO 1742. 1980