

ICS 67.050
CCS X 04



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

GB/T 5505-2008

Replacing GB/T 5505-1985

**Inspection of grain and oils -- Determination of the ash content
by incineration**

粮油检验 灰分测定法

(English Translation)

Issued on: August 4, 2008

Implemented on: December 1, 2008

Issued by: Standardization Administration of China

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Foreword

This standard is GB/T 5505-1985 "of grain and oilseeds - Determination of ash test" amendments.

This standard and GB/T 5505-1985 main technical differences are as follows.

--- The high temperature furnace burning temperature from 500 °C ~ 550 °C modified to 550 °C ± 10 °C.

Since the implementation of this standard, instead of the GB/T 5505-1985.

The standard proposed by the National Food Authority.

This standard by the National Standardization Technical Committee OILS.

This standard was drafted. Beijing foodstuff and Inspection.

1 Scope

This standard specifies the food, fuel ash in principle determined, reagents, instruments, analytical procedures, and the results of calculations.

This standard applies to food, the determination of ash content in the oil.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB/T 5497 grain and oilseeds - Determination of water test 3 550 °C burning method

3.1 Principle

The sample was 550 °C $\pm$ 10 °C ashing temperature to completely burning the volatile organic compounds after weighing the residues.

3.2 Reagents

3.2.1

Ferric chloride. AR.

3.2.2

ferric chloride solution (5g/L). Weigh 0.5g of ferric chloride dissolved in 100mL blue-black ink.

3.3 Instrument

3.3.1

muffle furnace. also known as Mao Fu furnace, Muffle furnace, high temperature furnace, capable of producing more than 550 °C high temperature, and temperature control.

3.3.2

Analytical Balance. a sense of the amount of 0.0001g.

3.3.3

porcelain crucible. a capacity of 18mL ~ 20mL.

3.3.4

dryers. built-effective color gel.

3.3.5

crucible tongs. long handle and short handle.

3.4.1 Moisture

According to GB/T 5497 Determination of sample water (W).

3.4.2 Sample Preparation

Samples were prepared according to GB/T in 5497 requirements.

3.4.3 Crucible process

Take a clean, dry porcelain crucible with a brush dipped in a solution of ferric chloride blue or black ink in the crucible ID number and then placed in a crucible $550\text{ }^{\circ}\text{C} \pm 10\text{ }^{\circ}\text{C}$ muffle furnace burning 30min ~ 60min, to move the crucible furnace door, until red hot crucible disappear, transferred to a dryer the cooling to room temperature, taken out and weighed crucible mass, repeated burning, cooling, weighing, until the mass difference before and after no more than two 0.0002g, record crucible mass (m_1 0).

3.4.4 Sample Determination

Weigh and mix the sample (m_1) 2g ~ 3g, accurate to 0.0002g, to deal with a good crucible, the crucible on the furnace, staggered crucible Cover, heating the sample until completely carbonized. Then, the crucible in a muffle furnace $550\text{ }^{\circ}\text{C} \pm 10\text{ }^{\circ}\text{C}$, the first on the mouth for a moment, then moved Furnace, staggered crucible lid, close the door, at $550\text{ }^{\circ}\text{C} \pm 10\text{ }^{\circ}\text{C}$ burning 2h ~ 3h. In the burning process, the crucible should swap positions 1 to 2 times, burning sample to black soot disappeared into a gray so far. Moving to the crucible furnace door, to be red hot crucible disappear After transfer to cool to room temperature in a desiccator, and weigh. Then burn 30min, cooling, weighing, until constant mass (m_1). Last burning quality