GB 5009.241-2017 National Food Safety Standard Determination of Magnesium in Foods

GB 5009.241—2017 食品安全国家标准 食品中镁的测定

NHFPC & CFDA
Translated by Chemlinked
Date of Publication: April 6, 2017
Date of Implementation: Oct. 6, 2017
Disclaimer

This is an unofficial document provided by ChemLinked (chemlinked.com), a platform of REACH24H Consulting Group, as an informational service to assist non-Chinese companies to better understand the Asia Pacific regulatory environment and importation compliance requirements especially China Chemical, Cosmetic, Food and Agrochemical regulatory issues.

This document should only be used as a reference and in case of any discrepancy between the English and Chinese versions the original Chinese version shall prevail.

Nondisclosure:

You may not disclose this document to anyone else without the written permission of ChemLinked.

For further clarification and questions, you can read our Privacy Polices or contact us at food@chemlinked.com
National Standard of the People’s Republic of China

GB 5009.241–2017

National Food Safety Standard

Determination of Magnesium in Foods

食品安全国家标准

食品中镁的测定

Date of publication: 2017–04–06
Date of implementation: 2017–10–06

Issued by: National Health and Family Planning Commission of the PRC
China Food and Drug Administration
Preface


Compared with GB/T 5009.90–2003, the main changes of this standard are as follows:

——the standard title has been revised to “National Food Safety Standard Determination of Magnesium in Foods”;

——the sample pretreatment methods have been adjusted to “wet digestion, microwave digestion, dry ashing and digestion by pressure tank;

——for the sample determination methods, flame atomic absorption spectrometry method has been retained and titration method has been deleted;

——the inductively coupled plasma atomic emission spectrometry has been added as the method II;

——the inductively coupled plasma mass spectrometry has been added as the method III.
National Food Safety Standard

Determination of Magnesium in Foods

1 Scope

This standard specifies the flame atomic absorption spectrometry, inductively coupled plasma atomic emission spectrometry, and inductively coupled plasma mass spectrometry for the determination of magnesium content in foods.

This standard applies to the determination of magnesium content in all kinds of foods.

Method 1 Flame atomic absorption spectrometry

2 Principles

After the digestion, the test sample is atomized by flame and the absorbance is determined at 285.2 nm. In certain concentration range, the absorbance value of magnesium is proportional to magnesium content, and can obtain a quantitative analysis by comparing with standard series.

3 Reagents and Materials

Unless otherwise specified, the reagents used in this method all refer to guaranteed reagents and the water shall be the Grade 2 water specified in GB/T 6682.

3.1 Reagents

3.1.1 Nitric acid (HNO₃).
3.1.2 Perchloric acid (HClO₄).
3.1.3 Hydrochloric acid (HCl).

3.2 Preparation of reagents

3.2.1 Nitric acid solution (5+95): measure 50 mL of nitric acid, pour it to 950 mL of water, and mix well.
Multiple users
$1799 per year

Single user
$4999 per year

Multiple users
for users <= 20

Subscribe to CHEMLINKED Now

Free

$1799

$4999

Specialized Consultation

Food Regulatory Analysis and Consultation

7-DAY MONEY BACK GUARANTEE

Note: Price subject to final confirmation of ChemLinked.

<table>
<thead>
<tr>
<th>Membership</th>
<th>Information</th>
<th>Knowledge</th>
<th>Database</th>
<th>Training</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>News</td>
<td>Newsletter</td>
<td>Alerts</td>
<td>Foodpedia</td>
</tr>
<tr>
<td>Free</td>
<td>Limited</td>
<td>√</td>
<td>√</td>
<td>x</td>
</tr>
<tr>
<td>Standard</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Corporate</td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Special</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CHEMLINKED.COM

6F, Building 2, HESHENG Trade Center, No 327 Tian Mu Shan Road, Hangzhou, China
Tel: +86 571 8609 4444 / Fax: +86 571 8700 7566 / E-mail: contact@chemlinked.com
Visit our website for more information about China Chemical News & Regulation updates