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

中华人民共和国国家标准

GB/T 11064.11-2013

Replace GB/T 11064.11-1989

**Methods for chemical analysis of lithium
carbonate, lithium hydroxide monohydrate and
lithium chloride -
Part 11: Determination of acid-insolubles
content-Gravimetric method**

碳酸锂、单水氢氧化锂、氯化锂 化学分析方法

第 11 部分： 酸不溶物量的测定 重量法

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China**

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Foreword

GB/T 11064 "Methods for chemical analysis of lithium carbonate, lithium hydroxide monohydrate and lithium chloride" is divided into 16 parts:

- Part 1: Determination of lithium carbonate content - Acid-alkali titrimetric method
- Part 2: Determination of lithium hydroxide content - Acid-alkali titrimetric method
- Part 3: Determination of lithium chloride content - Potentiometric method
- Part 4: Determination of potassium and sodium content - Flame atomic absorption spectrometric method
- Part 5: Determination of calcium content - Flame atomic absorption spectrometric method
- Part 6: Determination of magnesium content - Flame atomic absorption spectrometric method
- Part 7: Determination of iron content-1,10-phenanthroline spectrophotometric method
- Part 8: Determination of silicon content - Molybdenum blue spectrophotometric method
- Part 9: Determination of Sulfate Content - Barium Sulfate Nephelometry Method
- Part 10: Determination of chloride content - Silver chloride nephelometry method
- Part 11: Determination of Acid-insolubles Content - Gravimetric Method
- Part 13: Determination of aluminum content - Chromazurol S-cetylpyridine bromide spectrophotometric method
- Part 14: Determination of arsenic content - Molybdenum blue spectrophotometric method
- Part 15: Determination of Fluoride Content - Ion Selective Method
- Part 16: Determination of calcium, magnesium, copper, lead, zinc, nickel, manganese, cadmium and aluminum content - Inductively coupled plasma atomic emission spectrometry

This Part is part 11 of GB/T 11064.

This Part is drafted in accordance with rules given in GB/T 1.1-2009.

The Part replaces GB/T 11064.11-1989 "Lithium carbonate,lithium hydroxide monohydrate and lithium chloride-Determination of acid-insolubles-Gravimetric method".

Compared with GB/T 11064.11-1989, the main changes of this Part are as follows:

- ADD the repeatability terms;
- RE-EDIT the text format; ADD the test report.

This Part shall be under the jurisdiction of National Standardization Technical Committee of Nonferrous Metals (SAC/TC 243).

Drafting organizations of this Part: Xinjiang Wuxin Lithium Salt Development Co., Ltd., Xinjiang Research Institute of Non ferrous Metals and Beijing General Research Institute of Mining & Metallurgy.

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The historical version replaced by this Part is as follows:

- GB/T 11064.11-1989.

Methods for chemical analysis of lithium carbonate, lithium hydroxide monohydrate and lithium chloride -

Part 11: Determination of acid-insolubles content-Gravimetric method

1 Scope

This part of GB/T 11064 specifies the determination method of acid-insolubles content in lithium carbonate, lithium hydroxide monohydrate and lithium chloride.

The part applies to the determination of acid-insolubles content in lithium carbonate, lithium hydroxide and monohydrate and lithium chloride. The determination range: 0.0050%~0.020%.

2 Method Summary

The sample is dissolved with hydrochloric acid. Heat it to be boiling and filter it with a sand-core glass crucible. And then dry it at 105°C~110°C to be constant.

3 Reagents

Unless otherwise indicated, the reagent used in the part is an analytical pure reagent, and the water used here is the distilled or deionized water.

3.1 Hydrochloric acid ($\rho=1.19\text{g/mL}$).

3.2 Methyl orange indicator (1g/L): weigh 0.1g of methyl orange and dissolve it in the 70°C water. Cool it down and dilute it to 100mL.

4 Instrumentation

4.1 Oven.

4.2 Sand-core glass crucible: filter plate aperture: 5 μm ~15 μm .

5 Samples

5.1 The samples of lithium carbonate and lithium chloride should be preheated at 250°C~260°C for 2h, and then cooled down to room temperature in a desiccator.

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