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

GB/T 6276.1-2008

Replacing GB/T 6276.1-1986

**Determination of ammonium hydrogen carbonate for industrial
use -- Part 1: Ammonium hydrogen carbonate content --
Acid-base method**

工业用碳酸氢铵的测定方法 第1部分：碳酸氢铵含量 酸碱滴定法
(English Translation)

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Foreword

GB/T 6276 "industrial use - Determination of ammonium bicarbonate method" is divided into nine sections.

- Part 1. ammonium bicarbonate content of acid-base titration;
- Part 2. potentiometric titration of chloride content;
- Part 3. sulphide content Visible turbidimetric method;
- Part 4. sulphate content Visible turbidimetric method;
- Part 5. ash content by weight method;
- Part 6. iron content phenanthroline spectrophotometry method;
- Part 7. arsenic content diethyl dithiocarbamate silver spectrophotometry;
- Part 8. arsenic content Gutzeit method;
- Part 9. heavy metal content Visible turbidimetric method.

This part of GB/T 16276 Part of.

This Part replaces GB/T 6276.1-1986 "Industrial ammonium bicarbonate total alkalinity - Volumetric methods." this portion of the GB/T 6276.1-1986 The main differences are.

--- Standard name from "industrial ammonium bicarbonate total alkalinity - Volumetric methods" to "industrial use Determination of ammonium bicarbonate Part 1. acid-base titration bicarbonate content ";

--- Reagent solution, standard titration solution preparation and calibration methods such as

the implementation of HG/T 2843 standard.

This part is proposed by the China Petroleum and Chemical Industry Association.

This part of the National Standardization Technical Committee and soil conditioners Fertilizers (SAC/TC105) and focal point responsible for the interpretation.

This section drafted by. National Fertilizer Quality Supervision and Inspection Center (Shanghai).

1 Scope

GB/T 6276 This section specifies the content was determined by acid-base titration for industrial use ammonium bicarbonate.

This section applies to industrial use of ammonium bicarbonate content determination.

2 Normative references

The following documents contain provisions which, through reference to GB/T 6276 to the present, constitute provisions of this section. For dated reference documents Member, all subsequent amendments (not including errata content) or revisions do not apply to this section, however, encouraged to reach under this section Parties to research agreement to use the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

HG/T 2843 fertilizer products for chemical analysis commonly used standard titration solution, standard solution, reagent solution and indicator solution Principle 3 Test compound was added to an excess of sulfuric acid standard titration solution, in the presence of indicator solution, titration with sodium hydroxide standard solution back titration.

4 Reagents and materials

This standard reagent solution and water, in the specifications and method of preparation is not specified, it shall comply with the provisions of HG/T 2843's.

4.1 Sulfuric acid standard titration solution, Ba ($12H_2SO_4$

) = 0.5mol/L;

4.2 standard titration solution of sodium hydroxide, Ba (NaOH) = 0.5mol/L;

4.3 methyl red - methylene blue mixed indicator solution.

5 Instruments

Typically laboratory instruments.

6.1 Determination

Do two parallel determination of sample.

Rapid Weigh about 1g sample (accurate to 0.0002g) with a ground stopper in the weighing bottle, immediately wash the sulfuric acid previously filled with 50.0mL Standard titration solution 250mL conical flask, shake flasks, so that the sample was completely dissolved, bring to the boil expel carbon dioxide was added after cooling 3 to 4 drops of methyl red - methylene blue mixed indicator solution, titration with sodium hydroxide standard titration solution to the test solution exhibits gray-green as the end point.

7 Expression analysis

Ammonium bicarbonate content in ammonium bicarbonate (NH_4HCO_3) mass fraction, expressed in%, according to equation (1).

$(V_p - V_0) \times M \times 1000 \times 100$ (1) where.

Value V_p --- adding sulfuric acid standard titration solution volume in milliliters (mL);