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

GB/T 4618.2-2008

Replacing GB/T 4618-1984

**Plastics -- Epoxy resins -- Determination of chlorine content --
Part 2: Easily saponifiable chlorine**

塑料环氧树脂氯含量的测定第2部分：易皂化氯

(English Translation)

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Foreword

GB/T 4618 "Plastics - Determination of chlorine content epoxy resin" is divided into three parts.

- Part 1. Inorganic chlorine;
- Part 2. Easily saponifiable chlorine;
- Part 3. Total chlorine.

This section GB/T 4618 Part 2, identical with ISO 21627-2:2002 "Plastics --- --- chlorine content of an epoxy resin Determination --- Part 2. Easily saponifiable chlorine "(in English).

This section is equivalent translation ISO 21627-2:2002, identical in technical content.

For ease of use, this section do the following Edit modifications.

- a) The "this part of ISO 21627" to "GB/T 4618 this part" or "this part";
 - b) Delete the ISO 21627-2:2002 Foreword;
 - c) increase the foreword to the national standard of this Part;
 - d) For ISO 21627-2:2002 and other international standards referenced in our country is equivalent to using the standard, this section with a quote me National Standards corresponding to international standards in place, the rest is not tantamount to the adoption of a standard international standards in this section are Direct reference;
 - e) use of decimal notation. "" instead of the international standard decimal symbol "." this Part replaces GB/T 4618-1984 "epoxy resins and related materials - Determination of easily saponifiable chlorine." Section compared with GB/T 4618-1984 The main changes are as follows.
- Change the standard name, increasing the foreword;
 - Increasing the normative references;

- Increasing the terms and definitions;
- Sodium hydroxide solution was divided into 2-butoxyethanol for epoxy resins used for testing in methanol and glycidyl testing;
- Into concentration units by the N mol/L;
- Reference reagent sodium sulfate into a temperature from 120 °C 500 °C ~ 600 °C.

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

This part of the National Plastics Standardization Technical Committee (SAC/TC15) centralized.

This section is responsible for drafting. National Quality Supervision and Inspection Center of synthetic resin.

Participated in the drafting of this section. Bluestar New Chemical Materials Co., Ltd. Wuxi Resin Factory, Anhui Hengyuan Chemical Co., Ltd.

1 Scope

GB/T 4618 This section specifies the method for measuring the epoxy resin easily saponifiable chlorine.

Easily saponifiable chlorine content in a given amount of epoxy resin easily saponifiable chlorine amount.

The resulting value represents the concentration of easily saponifiable chlorine compounds chlorinated alcohol group.

2 Normative references

The following documents contain provisions which, through reference to GB/T 4618 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.

Determination of GB/T 4618.1-2008 Plastics - Epoxy chlorine content - Part 1. Inorganic chlorine (ISO 21627-1:2002, IDT) ISO 3696. 1987 specifications and test methods of laboratory water analysis

3 Terms and Definitions

The following terms and definitions apply GB/T 4618 of this section.

Such as the presence of 1,2-chlorohydrin due to incomplete dehydrohalogenation to produce, so most of the chlorine content easily saponifiable chlorine formed in this way.

Principle 4

Epoxy resin (diglycidyl esters of external addition) a solution of 2-butoxyethanol at room temperature the reaction with sodium hydroxide. Epoxy (glycidyl Ester oil) at 50 deg.] C the reaction with methanolic sodium hydroxide.

The mixture was acidified and silver nitrate standard solution Determination of chloride ion concentration by saponification generated by potentiometric titration. Inorganic samples Chlorine correction, inorganic chlorine measurement method GB/T 4618.1-2008 requirements.

5 Reagents

Except as otherwise provided in this section, the purity of the reagents used should be more analytical, test water shall comply with ISO 3696. 1987 in three or Above water specifications.

5.1

acetic acid.

5.2 2-butoxyethanol (EGB E). Store in a brown bottle, and placed in the dark.

NOTE: 2-butoxyethanol toxic, avoid inhaling its vapor, prevent contact with skin and eyes. Or should be well-ventilated place to work in a fume hood. Its limit Value is the volume fraction of 5×10^{-5} .

5.3

butanone (methyl ethyl ketone).

5.4

methanol.

Note: methanol is toxic avoid inhalation of its vapor, prevent contact with skin and eyes. Working in a fume hood or well-ventilated place.

GB/T 4618.2-2008/ISO 21627-2:2002