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

GB/T 1665-2008

Replacing GB/T 6489.3-2001

**Plasticizers - Determination of saponification value and
ester-content**

增塑剂皂化值及酯含量的测定

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Foreword

This standard also replace the GB /"Determination of saponification value and ester plasticizer content of" T 1665-1995 and GB/T 6489.3-2001 "Industrial Using test methods acetate content of phthalates Determination of saponification titration. " This standard and GB/T 1665-1995 no technical difference. This standard and GB/T 6489.3-2001 technical differences are as follows:

--- Analysis step of the standard sample weight calculated by the formula, GB/T 6489.3-2001 the sample weight is given by the list.

--- The results of this calculation are given two standard formulas saponification value and ester content (suitable for all plasticizers), GB/T 6489.3-2001 ester content is calculated only for phthalate plasticizers. The standard proposed by China Petroleum and Chemical Industry Association. This standard by the National Standardization Technical Committee rubber chemical additives and rubber Technical Committee. This standard is drafted by: Shanxi Institute of Chemical Engineering. The main drafters of this standard. Guo Yanping, Fan Xiuli. This standard replaces the standards previously issued as follows:

--- GB/T 1665-1981, GB/T 1665-1995.

--- GB/T 6489.3-1986, GB/T 6489.3-2001. Determination of saponification value and ester plasticizer content Warning. Use of this standard should be familiar with normal laboratory practice. This standard does not purport relates to the use of this standard may occur All security issues. Establish appropriate safety and health practices and determine the adaptive management system is the responsibility of the user.

1 Scope

GB/T 1665-2008 is the Chinese national standard on plasticizers - determination of saponification value and ester-content, in the field of chemical technology. The /T suffix

marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 18 June 2008 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 February 2009. Classification: ICS 71.100.40, CCS G70. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard specifies the method for determination of saponification value and ester plasticizer content. This standard applies to the determination of general plasticizer saponification value and ester content.

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. Preparation of

GB/T 601 chemical reagent standard titration solution

GB/T 603 chemical reagent test method Preparations of articles (GB/T 603-2002,

ISO 6353-1 with. 1982, NEQ)

GB/T 6682 analytical laboratory use specifications and test methods (GB/T 6682-2008,

ISO 3696. 1987, MOD) Principle

3 With an excess of potassium hydroxide - ethanol ester saponification sample, using phenolphthalein as an indicator solution, titration with hydrochloric acid standard solution titration of excess KOH - ethanol solution.

4 Reagents and materials

Unless otherwise indicated, the analysis used in the standard titration solution, preparations and products, according to GB/T 601, GB/T 603 provisions of preparation, analysis Only confirmed using analytical grade reagents and third grade water GB/T 6682 stipulated.

4.1 hydrochloric acid standard titration solution. $Ba(HCl) = 1.00\text{mol/L}$. Potassium hydroxide

4.2 - Ethanol standard solution. $Ba(KOH) = 1\text{mol/L}$, formulated with 95% ethanol.

4.3 phenolphthalein indicator solution. 10g/L.

5 Instruments

5.1 grinding mouth Erlenmeyer flask. 250mL, borosilicate glass, with ground glass stopper.

5.2 water-cooled reflux condenser. with ground glass joints, matching conical flask.

5.3 single pipette. 50mL.

6 Analysis

6.1 with the same pipette Pipette 50mL KOH - ethanol standard solution is added to the two clean and dry grinding mouth Erlenmeyer flask While each added 5mL water, ground glass stoppered. A sample was weighed (accurate to 0.0001g) disposed therein a cone Bottle. M1 mass of the sample according to equation (1).