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

GB/T 27841-2011

**Chemical products for industrial use -- Determination of hydro
solubility of solids and liquids with high solubility -- Flask
method**

工业用化学品 具有高溶解性的固体和液体水溶性测定 烧瓶法

(English Translation)

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Table of Contents

Foreword
Introduction
1 Scope
2 Normative references
3 Terms and Definitions
5 Reagents
6 Test instruments and equipment

Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules. This standard NFT20-046. 1985 "industrial chemicals with High solubility of water-soluble solids and liquids measured in the same flask method "(French version) of the technical content.

For ease of use, this standard has been modified following editorial.

--- Removed the original French standard 6.3 Determination of the provisions of footnote (1), read Duan;

--- Added "Normative References" section, where GB/T 22227 "industrial chemicals having a low solubility solids and liquid Determination of the cylindrical body of the water-soluble chromatography "and the French standard NFT20-045. 1985 is the same as the technical content;

--- Normative documents consistent with ISO 4788 "Laboratory glassware indexing cylinder", with the French standard NFB35-302 Degree equivalent.

This standard is managed by the National Standardization Technical Committee chemicals dangerous (SAC/TC251) and focal points.

This standard was drafted. Chinese Academy of Inspection and Quarantine, China Chemical Technology Development Center of Jiangsu Coal Chemical Engineering Research Institute Limited, the Chemical Institute of Standardization.

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Introduction

Only in this standard test method for all water-soluble substances can not be measured, respectively, using the following two methods.

--- Solubility test higher (greater than 10-2g/L) essentially pure substances and stable in water, determination of the reference standard.

--- Low solubility test (less than 10-2g/L) essentially pure substances and stable in water, with reference to national standards GB/T 22227. GB/T 22227 "industrial chemicals having a low solubility of water-soluble solid and liquid measuring cylinder Chromatography" is the national standard released in 2008, with the French standard NFT20-045. 1985 is the same as the technical content.

As of publication of this standard, the International Organization for Standardization (ISO) has not established any relevant international standards. The standard content and Council Directive 84 /Methods 449/EEC of A.6 described consistent, which is based Organisation for Economic Co-operation and Development (OECD) guidelines for chemical testing methods no.105.

Industrial chemicals having a high solubility of solids and Determination of water-soluble liquid flask method

1 Scope

This standard specifies the determination of industrial chemicals (hereinafter referred to as products) use a water-soluble flask METHOD.

This standard applies to good stability and high water solubility (greater than 10-2g/L) essentially pure substances.

This standard does not apply to impure products (such as certain surfactants), an unstable product and the product unstable in water, the test substance in the presence of impurities will largely affect the water solubility of the substance of the measurement results; good stability in water but does not apply to low solubility (small in 10-2g/L) essentially pure substances.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 22227 industrial chemicals having a low solubility of water-soluble solid and liquid chromatography assay cylindrical ISO 4788 laboratory glassware indexing cylinder (Laboratory glassware-Graduated measuring cylinders)

3 Terms and Definitions

The following terms and definitions apply to this document.

Water solubility product hydrosolubility of products Product concentration at a given temperature in water saturation in kg/m³ or g/L represented.

Principle 4

Slightly higher than measured under the conditions of temperature, the product is dissolved in water until it reaches saturation. The solution was cooled and kept at the temperature measurement Degrees by stirring, so saturation concentration constant. Determination of a certain volume of extracted product saturated solution using appropriate methods of analysis Concentration in water saturation.

5 Reagents

Distilled water or purified water equivalent.

6 Test instruments and equipment

Necked flask with 6.1 mill scale. standard ISO 4788 requirements 10mL and 100mL ground-necked flask.

6.2

mechanical stirrer.

6.3

thermostat box. accuracy of ± 0.5 °C.