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

GB/T 22227-2008

**Chemical products for industrial use -- Determination of water
solubility of solid and liquids with low solubility -- Column
elution method**

工业用化学品 具有低溶解性的固体和液体水溶性测定 圆柱层析法

(English Translation)

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Foreword

This standard is equivalent to using NFT20-045. 1985 measured circle "industrial chemicals having a low solubility of water-soluble solids and liquids Column chromatography "(French version).

For ease of use, has been modified following editorial.

- a) Note by the formula symbol in the symbol "-" instead of "=" sign;
- b) remove the original standard provisions footnote 4;
- c) increase the "Normative references" chapter.

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

Participated in the drafting of this standard. the Chemical Institute of Standardization, Anhui Entry-Exit Inspection and Quarantine of Jiangsu.

Drafters of this standard. Yao Jian, in Yanjun, Wen Jinsong, Mei Jian, Bian Xuedong, Liu Hongchuan, Tang Lijun, Wuzhong Ren, Zhang Jun Xi.

This standard is the first release.

NF Foreword

Recommendations before implementation of the method, the substance to be tested to understand the formula, the vapor pressure, the dissociation constant and the hydrolysis (pH value) and other information.

Determination of water-soluble substances in addition to all the volatile substances are available the following two methods.

--- Solubility test higher (greater than 10-2g/L) of essentially pure substance, and the substance in the water has good stability, reference NFT20-046;

--- Low solubilities (less than 10-2g/L) of essentially pure substance, and the substance in the water has good stability, reference "Cylindrical chromatography."

Introduction

This standard requires physical and chemical properties of industrial chemical analysis methods were compared in personnel, new substances should be according to the standards or no. 82-905 shall command --- on dangerous goods 79/831/CEE Directive (on the basis of the directive 67/548/CEE directive was on Amended 6 times) prepare technical information.

The standard measuring method specified, the product is placed in a small cylinder, so that the water cycle and for a sufficient period of time so as eluent Forming a stable crystallization, the product thus treated meet the solubility in water.

Water solubility is to understand a product special and temporary replacement, is the product in the organism transfer, biodegradability tests, gather water Test and test some other important parameters.

Industrial chemicals and solids with low solubility Determination of water-soluble liquid chromatography cylindrical

1 Scope

This standard specifies the use of a cylindrical chromatographic analysis of industrial chemicals Water solubility method.

This standard is not available for impure product (such as some silver surface), an unstable product and the product unstable in water.

Test substance in the presence of impurities will affect the water solubility of the substance measurement results to a large extent.

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.

NFT20-046 industrial chemicals having a high solubility of water-soluble solids and liquid measuring flask method

3 Terms and Definitions

This standard uses the following terms.

At a specific temperature, the concentration of a substance in water saturation. In kg/m³ or g/L represented.

Principle 4

The product to be tested by the inert medium is a saturated solution is filled into small cylinders, so that the water through repeated cycles, and can be adjusted by a the temperature of a small test tube, sustained long enough to make it in the eluent can form stable crystals. Eluent sampling, and the use of appropriate the analytical method for the analysis of the eluent crystals were measured.

5 Reagents

5.1

the inert medium. glass beads, silica and the like.

5.2

purity distilled water or the same water.

NOTE: Do not use directly from an organic ion exchanger treated water.

6 Instruments and equipment

6.1

minute column, see Figure 1.