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

GB/T 27844-2011

Chemicals -- Solution/extraction behaviour of polymers in water

化学品 聚合物在水中的溶解/析出特性

(English Translation)

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Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules.

The Standards and Organisation for Economic Co-operation and Development (OECD) guidelines for chemical testing methods No.120 (2000) "polymer was dissolved in water Solutions/precipitation characteristics of the "same (in English) of technical content.

This standard made the following editorial changes.

--- Delete the original text of the Background;

--- Added "Normative References" section, where GB/T 21845 and OECDNo.105.1995 technical content the same, GB/T 22236 and DIN53733. 1976 technical content is the same.

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.

1 Scope

This standard specifies the method for determination of the dissolution and release characteristics of the polymer in water.

This standard applies to the determination of the polymer is dissolved in water and precipitation characteristics.

This standard does not apply to liquid polymers and polymer under this test condition occurs with water used in the reaction. The standard method is not applicable or not when available, the dissolution/precipitation of other methods should be used to study characteristics. In this case, we need to give details of the methodology used and the use of reason.

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 21845 Chemicals water solubility test GB/T 22236 plastic products inspection test pulverized

3 PRINCIPLE OF THE METHOD

Dissolved in an aqueous medium in the polymer/precipitated by the following properties are modified flask method (see GB/T 21845) assay. For a these particular polymers, such as emulsion polymers, prior to the adoption of this standard should have the initial preparation.

4.1 Test device

Apparatus used in the test are.

- Grinding apparatus, for example, be made aware of the mill product particle size (see GB/T 22236);
- Temperature oscillation device;
- Membrane filter system;
- Analytical Instruments;
- Standard sieve.

4.2 Sample Preparation

With the appropriate device will have a representative sample ground so that the particle size is reduced to 0.125mm ~ 0.25mm, in order to ensure the stability of the sample Set, the grinding process to be cooled. Substance having rubber-like properties can be found in the liquid nitrogen temperature (see GB/T 22236) under ground.

If this does not achieve the desired particle size, particle size should be reduced as far as possible, this time should be reported in the test results. In the test report , It should be explained pulverized sample before testing the method of storage.

4.3.1 Procedure

Weigh 10g sample 3 parts of the test substance, and were placed in three containers with glass stoppers, each added 1000mL of water. If confirmed