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INDUSTRY STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

SN/T 3807-2014

Determination of purity of Phthalic anhydride - Differential scanning calorimetry(DSC)

邻苯二甲酸酐纯度的测定 差示扫描量热法

(English Translation)

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Foreword

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

This standard technical reference adopted ASTME928-2008 "Standard Test Method for differential scanning calorimetry determination of purity," A Method of this standard is proposed and managed by the National Certification and Accreditation Administration Committee.

This standard was drafted. People's Republic of China Guangdong CIQ, People's Republic of China Shandong Entry-Exit Inspection and Quarantine Bureau.

1 Scope

This standard specifies the phthalic anhydride purity of differential scanning calorimetry.

This standard applies to phthalic anhydride (purity greater than 98.5%) of purity determination.

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 19466.1-2004 plastic differential scanning calorimetry (DSC) - Part 1. General (ISO 11357-1:1997, IDT) Standard Test Method for Measurement ASTME793 melting and crystallization enthalpy by differential scanning calorimetry (StandardTestMethod forEnthalpiesofFusionandCrystalizationbyDifferentialScanningCalorimetry)

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3 Method summary

With a differential scanning calorimeter measurement of phthalic anhydride under a nitrogen atmosphere enthalpy with temperature changes, enthalpy - temperature curve plot Points obtained during the phase transition enthalpy of the phase transition in a temperature enthalpy programmatic processing of the sample to calculate the content of impurities, to give phthalic anhydride purity.

4 Materials and equipment

4.1
n-hexane, chromatography.

4.2
Indium. purity of not less than 99.99%.

4.3
Nitrogen. purity of not less than 99.99%.

4.4
differential scanning calorimeter. in line with GB/T 19466.1-2004 specified in 5.1 a differential scanning calorimeter. Differential calorimeter must Maintaining the standard room temperature in laboratory operations. Ventilation should avoid direct sunlight and sudden temperature changes.

4.5
balance. weighing accuracy of ± 0.00001g.

4.6
Sample dish. in line with GB/T 19466.1-2004 provisions of 5.2.

5 Calibration

As recommended by the instrument manufacturer's calibration calorimeter. Recommended test substance analytically pure indium temperature range accuracy.

6 Step, Analysis

6.1
Before the test pans required cleaning solvent such as hexane, until the solvent is completely evaporated, at 400 °C in a high temperature furnace heating 1min, cooling, Into the dryer within the reserve.

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