ICS 71.080
CCS G15

NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 13255.2-2009

Replacing GB/T 13255.2-1991

Test methods of caprolactam for industrial use - Part 2: Determination of crystallizing point

工业用己内酰胺试验方法 第2部分：结晶点的测定

Issued on: May 13, 2009 **Implemented on: January 1, 2010**

Issued by: General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China;
Standardization Administration of China

Table of Contents

Foreword

GB/T 13255 "Industrial caprolactam test method" is divided into eight sections.

--- Part 1. Determination of a 50% aqueous solution of chromaticity spectrophotometry;

--- Part 2. Determination of crystallizing point;

--- Part 3. Determination of permanganate absorption spectrophotometry value;

--- Part 4. After distillation of volatile alkali content of titration;

--- Part 5. 290nm wavelength measured absorbance;

--- Part 6. Determination of acidity or alkalinity;

--- Part 7. Determination of iron content;

--- Part 8. Determination of cyclohexanone oxime content. This section GB/T 13255 Part 2. This Part replaces GB/T 13255.2-1991 "Determination of caprolactam industrial crystallization point." This section compared with the GB/T 13255.2-1991, the main changes are as follows: Chapter 7);

--- Added "Report" (see Chapter 8). This part is proposed by the China Petroleum and Chemical Industry Association. This part of the National Standardization Technical Committee on Organic Chemistry Club (SAC/TC63/SC2) centralized. This section drafted by: China Petroleum & Chemical Corporation Baling Branch. The main drafters of this section. Zhao Jun red, Shenpei Zhi, Kuang Zhigang. This part of the standard replaces the previous editions as. GB/T 13255.2-1991. Test methods of caprolactam for industrial use Determination of crystallizing point. Part 2

1 Scope

GB/T 13255.2-2009 is the Chinese national standard on test methods of caprolactam for industrial use - part 2: determination of crystallizing point, 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 13 May 2009 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 January 2010. Classification: ICS 71.080, CCS G15. 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.

GB/T 13255 provisions of this part of the industrial process measurement caprolactam crystallization point.

2 Normative references

The following documents contain provisions which, through reference

GB/T 13255 in this section constitute provisions of this section. For dated reference documents Member, all subsequent amendments (not including errata content) or revisions do not apply to this section, however, encouraged to reach under this section Parties to research agreement to use the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

GB/T 8170 repair numerical representation about rules and limit values \u200b\u200band judgment

3 Method summary

The molten sample was observed during cooling of the temperature change, crystallization occurs when the maximum temperature observed and maintained for some time Constant, the temperature of crystallization point.

4 Instrument

4.1 Crystallization tube. diameter 25mm, wall thickness (1 ~ 2) mm, length 150mm.

4.2 outer protective tube. diameter 28mm, wall thickness (1 ~ 2) mm, length 120mm.

4.3 agitator. stainless steel wire system, the diameter of 1mm, more than 160mm long and has a diameter of about 20mm and at right angles to the axis of the ring.

4.4 Main thermometers. mercury thermometer glass rod, range (62 ~ 76) °C, dividing the value of 0.1 °C, long 300mm, full immersion and after Correction.

4.5 Auxiliary thermometer. glass rod mercury thermometer, range (0 ~ 50) °C, dividing the

value of 1 °C.

4.6 vacuum bottle (see Figure 2). a glass, an inner diameter of 35mm, outside diameter 55mm, length 120mm, vacuum jacket.

4.7 glycerin bath. 1000mL beaker or other similar device can control the temperature (77 ~ 80) °C.

4.8 asbestos rubber covers or other similar materials. Installation

5 Instrument

5.1 Main thermometer position. fixed with a rubber plug in the middle of crystallization mouth of the tube, the mercury at the bottom of the ball away from its crystalline bottom of the tube about 15mm.

5.2 Auxiliary thermometer Location. attached to the main thermometer, so that the mercury ball is located between the stopper at one point and the crystallization temperature at a point two minutes.

5.3 stirrer Location. drilling a hole in the stopper, the stirrer insert crystallization test tube, located between the main wall thermometer with the crystalline sample, three You can not collide.

5.4 outer protective tube position. fixed on the rubber cover asbestos holes, placed vertically glycerin bath.

5.5 Crystallization tube Location. means the outer protection tube. Step

6 Analysis When measured using a crystallization tube, a thermometer, a stirrer should be clean and dry. The laboratory sample mix, filled with crystalline tube, stopper tightly, and then placed in a bath of glycerol outer protective tube, in a temperature controlled bath glycerine