

ICS 71.080.30

CCS G17



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

**GB/T 13254-2017**

Replacing GB/T 13254-2008

**Caprolactam for industrial use**

工业用己内酰胺

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### Foreword

This standard was drafted in accordance with the rules given GB/T 1.1-2009. This standard replaces GB/T 13254-2008 "Industrial caprolactam." This standard compared with GB/T 13254-2008 major changes as follows:

--- Solid appearance by the "white, flake solid, no visible mechanical impurities" to "white, flake or powder or granular solid, no Visible mechanical impurities "(see 3.1.1,.2008 edition 3.1.1);

--- 50% aqueous solution of chroma superior products, first-class products, quality indicators were  $\leq 3$ ,  $\leq 5$ ,  $\leq 8$ , No. 2 amended to  $\leq 2$ ,  $\leq 4$ ,  $\leq 6$  (see 3.2,.2008 edition 3.2);

--- Potassium permanganate absorption value of superior products, first-class products, qualified products were indicators by  $\leq 5$ ,  $\leq 8$ ,  $\leq 18$  amended to  $\leq 4$ ,  $\leq 6$  and  $\leq 10$  (See 3.2,.2008 version 3.2);

--- Volatile alkali content of first-class products, quality indicators were  $\leq$

0.8 mmol/kg,  $\leq$

1.5 mmol/kg modified to  $\leq 0.60$ mmol/kg and  $\leq 1.00$ mmol/kg, the indexes of superior products are unchanged (see 3.2,.2008 edition 3.2);

--- 290nm wavelength absorbance of superior products, first-class products, quality indicators were  $\leq 0.04$ ,  $\leq 0.10$ ,  $\leq$

0.20 amended to  $\leq 0.040$ ,  $\leq$

0.060 and  $\leq 0.100$  (see 3.2,.2008 edition 3.2);

--- Acidity new eligibility indicators  $\leq 0.20$ mmol/kg; alkalinity of the first-class products and quality indicators were  $\leq 0.10$ mmol/kg And  $\leq$

0.20 mmol/kg to  $\leq$

0.08 mmol/kg and  $\leq$

0.15 mmol/kg, the new eligible index  $\leq$

## 1 Scope

GB/T 13254-2017 is the Chinese national standard on caprolactam for industrial use, 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 1 November 2017 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 May 2018. Classification: ICS 71.080.30, CCS G17. 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.

This standard specifies the requirements of industrial caprolactam, test methods, inspection rules and signs, packaging, transportation and storage. This standard applies to the production of industrial caprolactam, testing and sales. Formula .C<sub>6</sub>H<sub>11</sub>NO Structural formula .CH<sub>2</sub> CH<sub>2</sub> CH<sub>2</sub> CH<sub>2</sub> CH<sub>2</sub> CO NH Relative molecular mass .113.16 (according to the international relative atomic mass in.2016)

## 2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version applies to this article Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 6283 Determination of moisture content of chemical products Karl Fischer (General Methods)

GB/T 6678 General rules for sampling chemical products

GB/T 6679 General rules for sampling solid chemical products

GB/T 6680 General rules for sampling liquid chemical products

GB/T 8170 rounded repair rules and limit values of the representation and judgment

GB/T 8946 plastic woven bags general technical requirements

GB/T 13255.1 industrial caprolactam test method - Part 1. 50% aqueous solution Determination of colorimetry Test method for industrial caprolactam - Part 2. Determination of the crystallization point GB/T 13255.2

GB/T 13255.3 Industrial use caprolactam test method - Part 3. Determination of potassium permanganate absorption value spectrophotometry

GB/T 13255.4 industrial caprolactam test method - Part 4. Determination of volatile base content titration after distillation

GB/T 13255.5 industrial caprolactam test method - Part 5. Determination of absorbance at 290 nm wavelength

GB/T 13255.6 industrial caprolactam test methods - Part 6. Determination of acidity or alkalinity Test method for industrial caprolactam - Part 7. Determination of iron content

GB/T 13255.8 industrial caprolactam test methods - Part 8. Determination of cyclohexanone oxime content

### **3.1 Appearance**

3.1.1 Appearance of solid. White, flaky or powdery or granular solid with no visible mechanical impurities.

3.1.2 Liquid Appearance. Colorless, transparent liquid, no visible mechanical impurities.

3.2 Specifications Industrial caprolactam should meet the technical requirements shown in Table 1.