

ICS 67.180.20

CCS X 69



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

GB/T 35538-2017

Technical guide for the assay of industrial enzyme preparations

工业用酶制剂测定技术导则

Issued on: December 29, 2017

Implemented on: July 1, 2018

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine;
Standardization Administration of the PRC**

Table of Contents

- 1 Scope
- 2 Normative references
- 3 Terms and definitions

Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009. This standard by the National Food Industry Standardization Technical Committee (SAC/TC64) proposed. This standard by the National Food Industry Standardization Technical Committee Fermentation Technical Committee (SAC/TC64/SC5) centralized. This standard was drafted unit. China Food Fermentation Industry Research Institute, Zhejiang Ai Jiesi Biotechnology Co., Ltd., Shandong Lung Kete enzyme preparation Limited, Qingdao Blue Biological Group Co., Ltd., Novozymes (China) Investment Co., Ltd. The main drafters of this standard. Zhang Wei, Tian Yaqiong, Liu Ming, Teng Zhizu, Wu Zhuying, Li Cong, Zhai Wenjing, Zhang Shitong, Pan Hongtao, Guo Qingwen, Chen Liang Zhen. Technical guidelines for the determination of industrial enzymes

1 Scope

China's national technical guide for assaying industrial enzyme preparations. It specifies the terms and definitions, the classification of physico-chemical indicators, and the determination and evaluation of enzyme activity. An enzyme preparation is not sold by mass of protein but by activity, because that is the only thing the buyer is buying: how much substrate the product will convert, in what time, under stated conditions. Which makes the assay the specification. And an activity figure is meaningless without the conditions attached to it, since enzymes are exquisitely sensitive to pH, temperature, ionic strength and the substrate used - the same preparation can honestly be quoted at figures differing by a factor of several depending on how it was measured. Industrial enzymes go into detergents, textile finishing, leather, starch processing, baking, brewing and animal feed, in tonnage quantities, and this guide is what allows a purchaser to compare a supplier's units with another's rather than taking each on trust.

This standard specifies the terms and definitions of industrial enzyme preparation, physical and chemical indicators classification, determination of enzyme activity and enzyme activity determination method Shi and evaluation requirements. This standard applies to industrial enzymes used in the determination of key indicators Determination of the method of establishing, implementing and evaluating guidance.

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. QB/T 1803 industrial enzyme preparation common test methods

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 Enzyme preparation Either directly from the edible or non-edible part of the animal or plant, or from traditional or genetically modified microorganisms, including but not limited to, Bacteria, actinomycetes, fungi) fermentation, extraction made, with special catalytic function of biological products. NOTE Commercial commercial enzyme preparation products allow the addition of ingredients that are easy to store and use.

3.2 Enzyme activity The ability of enzymes to catalyze a particular reaction under certain conditions.

4 industrial enzyme preparation physical and chemical indicators classification

4.1 Determination of industrial enzymes key indicators. Enzyme activity.

4.2 Determination of industrial enzymes General purpose indicators are as follows:

4.3 Other indicators.

5 industrial enzyme preparation enzyme activity determination method to establish guidance

5.1 Determination of enzyme activity The key factors of the reaction conditions to establish guidance

5.1.1 substrate selection The method for selecting the substrate is as follows: