

Translated English of Chinese Standard: GB/T19136-2021  
[www.ChineseStandard.net](http://www.ChineseStandard.net) → Buy True-PDF → Auto-delivery.  
[Sales@ChineseStandard.net](mailto:Sales@ChineseStandard.net)

**GB**

NATIONAL STANDARD OF THE  
PEOPLE'S REPUBLIC OF CHINA

ICS 65.100

CCS G 23

**GB/T 19136-2021**

Replacing GB/T 19136-2003

---

**Testing method of the accelerated storage stability at  
elevated temperature for pesticides**

农药热储稳定性测定方法

**Issued on: December 31, 2021**

**Implemented on: July 01, 2022**

**Issued by: State Administration for Market Regulation;  
Standardization Administration of the People's Republic of China.**

## Table of Contents

|                               |   |
|-------------------------------|---|
| Foreword .....                | 3 |
| 1 Scope.....                  | 5 |
| 2 Normative references .....  | 5 |
| 3 Terms and definitions ..... | 5 |
| 4 Test methods .....          | 5 |

# Testing method of the accelerated storage stability at elevated temperature for pesticides

## 1 Scope

This document describes a method for the determination of accelerated storage stability of pesticides.

This document is applicable to the determination of accelerated storage stability of pesticide preparation products.

## 2 Normative references

This document has no normative references.

## 3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

### 3.1 controlled-release formulation

through functional materials or controlled release technology, the formulation that the release of active ingredients is purposely controlled and has a long-lasting effect

### 3.2 long lasting storage bag

the storage bag formulation that, through special treatment, the release of active ingredients can be slowed down or controlled, thereby forming physical and chemical control of pests

### 3.3 matrix release

the formulation that slows down or controls the release of active ingredients through the polymer matrix, so as to achieve the purpose of sustained long-term effect

## 4 Test methods

**WARNING: Personnel using this document shall have practical experience in laboratory work. This document does not address all security issues. It is the user's responsibility to take appropriate safety and health precautions.**

## 4.1 General

Accelerated storage stability test conditions are generally 14 days at  $54^{\circ}\text{C} \pm 2^{\circ}\text{C}$ . The test conditions may be changed when the preparation is neither suitable nor intended for use in hot climates, and when high temperatures have a negative effect on the preparation. Alternative conditions are:  $50^{\circ}\text{C} \pm 2^{\circ}\text{C}$ , 4 weeks;  $45^{\circ}\text{C} \pm 2^{\circ}\text{C}$ , 6 weeks;  $40^{\circ}\text{C} \pm 2^{\circ}\text{C}$ , 8 weeks;  $35^{\circ}\text{C} \pm 2^{\circ}\text{C}$ , 12 weeks;  $30^{\circ}\text{C} \pm 2^{\circ}\text{C}$ , 18 weeks.

The sample size of accelerated storage test shall be determined according to the specified items after accelerated storage. Sampling shall be carried out according to the characteristics of different dosage forms.

## 4.2 Method summary

After storing the specimen at  $54^{\circ}\text{C} \pm 2^{\circ}\text{C}$  for 14 days, measure the specified items.

## 4.3 Instruments

**4.3.1** Thermostat:  $54^{\circ}\text{C} \pm 2^{\circ}\text{C}$ , an explosion-proof thermostat shall be used for the aerosol.

**4.3.2** Storage containers shall meet the following conditions:

- a) Liquid preparations, powder preparations, granular preparations, long-term mosquito nets and long-term storage bags shall be in screw-top glass bottles with polytetrafluoroethylene seals or original packaging;
- b) Aerosols, anti-mosquito nets, dispersing wicks and electric heating mosquito-repellent coils are in original packaging;
- c) The matrix releases are packaged in aluminum foil paper or in the original commodity packaging;
- d) For other formulations, a storage container or original product packaging that has no effect on the specimen and can be sealed shall be selected.

## 4.4 Test steps

### 4.4.1 Liquid, powder and granule formulations

Place the specimen in a glass bottle and seal it. Store in an incubator at  $54^{\circ}\text{C} \pm 2^{\circ}\text{C}$  for 14 d. Take out. Put in a desiccator. Cool to room temperature. Complete the determination of the specified items such as the mass fraction of active ingredients within 24 h.

The accelerated storage test can also be carried out directly using the original package of the commodity.

### 4.4.2 Aerosol

**This is an excerpt of the PDF (Some pages are marked off intentionally)**

**Full-copy PDF can be purchased from 1 of 2 websites:**

1. <https://www.ChineseStandard.us>

- SEARCH the standard ID, such as GB 4943.1-2022.
- Select your country (currency), for example: USA (USD); Germany (Euro).
- Full-copy of PDF (text-editable, true-PDF) can be downloaded in 9 seconds.
- Tax invoice can be downloaded in 9 seconds.
- Receiving emails in 9 seconds (with download links).

2. <https://www.ChineseStandard.net>

- SEARCH the standard ID, such as GB 4943.1-2022.
- Add to cart. Only accept USD (other currencies - <https://www.ChineseStandard.us>).
- Full-copy of PDF (text-editable, true-PDF) can be downloaded in 9 seconds.
- Receiving emails in 9 seconds (with PDFs attached, invoice and download links).

Translated by: Field Test Asia Pte. Ltd. (Incorporated & taxed in Singapore. Tax ID: 201302277C)

About Us (Goodwill, Policies, Fair Trading...): <https://www.chinesestandard.net/AboutUs.aspx>

Contact: Wayne Zheng, [Sales@ChineseStandard.net](mailto:Sales@ChineseStandard.net)

Linkin: <https://www.linkedin.com/in/waynezhengwenrui/>

**----- The End -----**