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

GB/T 31270.2-2025

Replacing GB/T 31270.2-2014

**Test guidelines on environmental safety assessment for
chemical pesticides - Part 2: Hydrolysis test**

化学农药环境安全评价试验准则 第2部分：水解试验

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

This document is Part 2 of GB/T 31270 "Test Guidelines for Environmental Safety Evaluation of Chemical Pesticides". GB/T 31270 has been published. The following parts.

- Part 1: Soil metabolism test;
- Part 2: Hydrolysis test;
- Part 3: Photolysis test;
- Part 4: Soil adsorption/desorption test;
- Part 5: Soil leaching test;
- Part 6: Volatility test;

- Part 7: Bioconcentration test;
- Part 8: Water-sediment system metabolism test;
- Part 9: Short-term feeding toxicity test for birds;
- Part 10: Bee acute toxicity test;
- Part 11: Silkworm acute toxicity test;
- Part 12: Fish acute toxicity test;
- Part 13: Daphnia acute immobilization test;
- Part 14: Algal growth inhibition test;
- Part 15: Earthworm acute toxicity test;
- Part 16: Soil microbial toxicity test;
- Part 17: Acute toxicity test for natural enemy Trichogramma;
- Part 18: Acute toxicity test for natural enemies and amphibians;
- Part 19: Non-target plant impact test;
- Part 20: Short-term feeding toxicity test for livestock;
- Part 21: Toxicity test for large crustaceans;
- Part 22: Soil surface photolysis test;
- Part 23: Birds acute oral toxicity test.

This document replaces GB/T 31270.2-2014 "Test Guidelines for Environmental Safety Assessment of Chemical Pesticides Part 2: Hydrolysis Test" and Compared with GB/T 31270.2-2014, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

- a) The terms and definitions have been changed (see Chapter 3, Chapter 2 of the 2014 edition);
- b) The requirements for reagents and materials have been changed (see Chapter 6, 4.1.2 of the 2014 edition);
- c) The requirements for instruments and equipment have been changed (see Chapter 7, 4.1.3 of the 2014 edition);
- d) The requirements for test substances have been changed (see 8.1, 4.1.1 of the 2014 edition);
- e) The test steps have been changed (see Chapter 9, 4.2 of the 2014 edition);
- f) The requirements for test data processing have been changed (see Chapter 10, 4.3 of

the 2014 edition);

g) The quality control requirements have been changed (see Chapter 11, 4.4 of the 2014 edition);

h) Added the test flow chart (see Appendix B).

Please note that some of the contents of this document may involve patents. The issuing organization of this document does not assume the responsibility for identifying patents.

This document is proposed by the Ministry of Agriculture and Rural Affairs of the People's Republic of China.

This document is under the jurisdiction of the National Technical Committee on Pesticide Standardization (SAC/TC133).

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The previous versions of this document and the documents it replaces are as follows.

- First published in 2014 as GB/T 31270.2-2014;
- This is the first revision.

Introduction

In order to reduce the impact of pesticide use on the ecological environment and provide data that meets the requirements of pesticide environmental risk assessment, it is necessary to carry out environmental safety assessment.

Tests are conducted to clarify the metabolism, degradation, adsorption, leaching, bioaccumulation and other characteristics of pesticides in the environment as well as their toxicity to non-target organisms.

GB/T 31270 "Guidelines for Environmental Safety Evaluation of Chemical Pesticides" is a test method standard for guiding the environmental safety evaluation of pesticides in China.

It is composed of 23 parts to standardize the pesticide environmental safety evaluation test work and improve the scientificity and comparability of pesticide environmental safety evaluation tests.

- Part 1: Soil metabolism test. The purpose is to clarify the metabolic pathways and metabolic rates of pesticides in soil.
- Part 2: Hydrolysis test. The purpose is to clarify the hydrolysis pathway and hydrolysis rate

of pesticides.

- Part 3: Photolysis test. The purpose is to clarify the photolysis pathway and photolysis rate of pesticides.
- Part 4: Soil adsorption/desorption test. The purpose is to clarify the soil adsorption characteristics of pesticides.
- Part 5: Soil leaching test. The purpose is to clarify the leaching of pesticides.
- Part 6: Volatility test. The purpose is to clarify the volatility of pesticides.
- Part 7: Bioconcentration test. The purpose is to determine the bioconcentration of pesticides in fish.
- Part 8: Water-sediment system metabolism test. The purpose is to clarify the metabolic pathways and metabolism of pesticides in water-sediment systems. Thanks for the rate.
- Part 9: Short-term feeding toxicity test for birds. The purpose is to determine the short-term feeding toxicity of pesticides to birds.
- Part 10. Bee acute toxicity test. The purpose is to determine the acute toxicity of pesticides to bees.
- Part 11. Acute toxicity test to silkworm. The purpose is to determine the acute toxicity of pesticides to silkworm.
- Part 12. Fish acute toxicity test. The purpose is to determine the acute toxicity of pesticides to fish.
- Part 13. Daphnia acute activity inhibition test. The purpose is to determine the acute toxicity of pesticides to Daphnia.
- Part 14. Algal growth inhibition test. The purpose is to determine the toxicity of pesticides to algae.
- Part 15. Earthworm acute toxicity test. The purpose is to determine the acute toxicity of pesticides to earthworms.
- Part 16. Soil microbial toxicity test. The purpose is to clarify the toxicity of pesticides to soil microorganisms.
- Part 17. Acute toxicity test for natural enemy Trichogrammatids. The purpose is to clarify the toxicity of pesticides to Trichogrammatids.
- Part 18. Acute toxicity test for natural enemies and amphibians. The purpose is to clarify the acute toxicity of pesticides to amphibians.
- Part 19. Non-target plant effects test. The purpose is to clarify the toxicity of pesticides to non-target plants.