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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 31270.1-2025

Replacing GB/T 31270.1-2014

Test guidelines on environmental safety assessment for chemical pesticides - Part 1: Soil metabolism test

化学农药环境安全评价试验准则 第1部分：土壤代谢试验

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1.Structure and Drafting Rules of Standardization Documents". Drafting. This document is Part 1 of GB/T 31270, "Test Guidelines for Environmental Safety Evaluation of Chemical Pesticides". GB/T 31270 has been published. The following section.

1.Soil Metabolism Test;

2.Hydrolysis Test;

3.Photolysis Experiment;

4.Soil Adsorption/Desorption Tests;

5.Soil Leaching Test;

6.Volatility Testing;

7.Bioaccumulation Assays;

8.Metabolic Experiments of Water-Sediment Systems;

9.Short-term feeding toxicity tests in birds;

10.Acute toxicity tests on bees;

11.Acute toxicity test on silkworms;

12.Acute Toxicity Testing in Fish;

1 Scope

GB/T 31270.1-2025 is the Chinese national standard covering what happens to a pesticide in soil - the aerobic and anaerobic incubations, the soils chosen, the identification of the metabolites formed, and the half-life that decides whether the compound is still there at the next planting. Part 1 of the series, with Parts 4, 5, 7 and 14 revised the same day. It replaces GB/T 31270.1-2014, in force from 1 May 2026. Issued on 31 October 2025, it has been in force since 1 May 2026, replacing GB/T 31270.1-2014.

This document describes the experimental methods for chemical pesticide soil metabolism tests. This document applies to soil metabolism tests conducted for the registration of chemical pesticides.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB/T 6682 Specifications and test methods for water used in analytical laboratories

GB/T 32726-2016 Soil Quality - Field Soil Description LY/T 1215 Determination of soil moisture and physical properties in forests LY/T 1225 Determination of particle size distribution (mechanical composition) of forest soils LY/T 1243 Determination of Cation Exchange Capacity in Forest Soils

NY/T 1121.2 Soil Testing - Part

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 Major metabolites In soil metabolism tests, at any given testing time point, the mole fraction or radioactivity ratio exceeding 10% of the initial addition amount... Thank you.

3.2 Unextracted residues Residues not extracted from the soil.

3.3 mineralization When a 14C-labeled test substance is used, the labeled carbon atom is oxidized and releases 14CO2.

4 Determination of Soil Bulk Density

NY/T 1121.6 Soil Testing - Part

6 Determination of Soil Organic Matter

NY/T 3150 Guidelines for Environmental Degradation Kinetics Assessment and Calculation of Pesticide Registration