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

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Chemicals -- Honeybees acute contact toxicity test

化学品 蜜蜂急性接触性毒性试验

(English Translation)

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Foreword

This standard is identical with the Organization for Economic Co-operation and Development (OECD) Chemicals Test Guide No. 214 (1998) "Acute contact of bees Toxicity test "(in English).

This standard made the following editorial changes.

- Added Chapter 1. Range;
- The appendix terms and definitions advanced to Chapter 2;
- Unit "µg/bee" for "µg/bee".

This standard by the National Standardization Technical Committee of hazardous chemicals management (SAC/TC251) and focal point.

This standard was drafted. Chinese Academy of Inspection and Quarantine, Ningbo Entry-Exit Inspection and Quarantine.

Introduction

This standard specifies the laboratory evaluation of pesticides and other chemical substances on the bees produced acute contact toxicity test methods. This Reference was made to the above method at the Fifth International Conference organized by the International Plant Honey Commission (ICPBR) in the Netherlands in 1993 See the reference [2] for the modification suggestion, reference [3], [4] and [5] at the same time.

Chemical bee acute contact toxicity test

1 Scope

This standard specifies the laboratory assessment of insecticides and other chemical substances on the bees acute toxicity of the size of the test range Language and definition, purpose of test, principle, test preparation, test procedure, quality control, data and report.

This standard applies to laboratory assessment of pesticides and other chemical substances on the bees acute toxicity.

2 Terms and definitions

The following terms and definitions apply to this standard.

The test substance has a detrimental effect on the test organism when the test substance is in local contact with the test organism for a maximum of 96 hours.

The amount of test substance used (μg) is expressed as the mass ($\mu\text{g}/\text{bee}$) of the test substance used for a single bee.

Refers to the amount of test substance that causes death of 50% of the test organisms when the test organism is in contact with the test substance. Half lethal dose with a single bee by Use the mass of the test substance ($\mu\text{g}/\text{bee}$) to express. For pesticides, the test substance may be an active ingredient, it may contain one or more Preparation of active ingredients.

The proportion of dead test organisms to the total test organisms.

3 Test purposes

Test substance in practical applications, if possible contact with the bees, then assess the toxicity of the test substance, but also need to determine the contact toxicity Sexual size. This standard specifies the test methods for acute contact toxicity of insecticides and other chemical bees, the test results can be used to confirm Subject to test whether the need for further assessment. This standard can be applied in the laboratory - semi-field - field sequence test evaluation of pesticides and chemicals Acute contact hazard of quality bees. Pesticides can be either an active ingredient or a formula-based product during the test.

The sensitivity of the bees and the precision of the test procedure should be controlled during the test.

4 Principle

The solution of the test substance was dropped onto the bee chest through the carrier, and the experiment was continued for 48 hours to observe the mortality rate of the bees. If in 24h ~ 48h , The bee mortality rate continued to increase, while the mortality rate of bees in

the control group remained at an acceptable level, for example, not more than 10% to consider extending the trial to 96h. Mortality was recorded daily and compared with the control group. The results were analyzed and calculated for 24h and 48h of LD50, as well as LD50 values at 72 h and 96 h after prolonged testing.

5.1 Bee selection

The test bees should be selected from the same population, try to choose the same bee age, feeding the same way, good nutrition, disease resistance, and