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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 15670.12-2017

Replacing GB/T 15670-1995

Toxicological test methods for pesticides registration - Part 12: Short-term repeated dose 28-day inhalation toxicity study

农药登记毒理学试验方法 第12部分：短期重复吸入染毒(28天)毒性试验

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Foreword

GB/T 15670 "Pesticide registration toxicology test method" is divided into the following parts. - Part 1. General; - Part 2. Acute oral toxicity test; - Part 3. Sequential method of acute oral toxicity test; - Part 4. Acute oral toxicity test probability unit method; - Part 5. Acute percutaneous toxicity test; - Part 6. Acute inhalation toxicity test; - Part 7. Skin irritation/corrosivity test; - Part 8. Acute eye irritation/corrosivity test; - Part 9. Skin allergy (sensitization) test; - Part 10. Short-term repeated oral exposure (28 days) toxicity test; - Part 11. Short term repeated percutaneous exposure (28 days) toxicity test; - Part 12. Short-term repeated inhalation exposure (28 days) toxicity test; - Part 13. Subchronic toxicity test; - Part 14. Bacterial response mutations; - Part 15. Micronucleus test of mammalian bone marrow polychromatic erythrocytes; - Part 16. Chromosome aberration test of mammalian bone marrow cells in vivo; - Part 17. Chromosome aberration of spermatogonia/spermatocytes in mammals; - Part 18. Sexual lethal test of rodents; - Part 19. In vitro mammalian cell chromosome aberration test; - Part 20. In vitro mammalian cell gene mutation test; Part 21. Systemic DNA synthesis (UDS) test for mammalian hepatocytes in vivo; - Part 22. DNA damage and repair/programmed DNA synthesis in mammalian cells in vitro; - Part 23. Teratogenic tests; - Part 24. Two generations of reproductive toxicity tests; - Part 25. Acute delayed neurotoxicity test; - Part 26. Chronic toxicity test; - Part 27. Cancer test; - Part 28. Chronic toxicity and carcinogenesis trials; - Part 29. Metabolic and toxic kinetic tests. This part is part 12 of GB/T 15670. This part is drafted in accordance with the rules given in GB/T 1.1-2009. This part of the part of GB/T 15670-1995 "pesticide registration toxicology test method". This section compares with the subacute inhalation toxicity test part of GB/T 15670-1995. The main changes are as follows:

--- this part changed its name to "short-term repeated inhalation exposure (28 days) toxicity test";

--- modify and adjust the overall structure and layout format; - Added or refined the contents of some chapters (Chapters 1, 2, 3, 5, 6.1.1, 6.1.2, 6.1.3, 6.1.4, Chapters 7 and 8); - modified the requirements for laboratory animals (see 6.1.5,.1995 edition 10.3); In the description of the repeated exposure to exposure to exposure, the exposure time is revised to read. "In addition to special requirements, the general daily inhalation Exposure to 6h, 7d

per week, continuous exposure to 28d. Taking into account the actual work situation, but also weekly exposure to 5d "(see 6.2.1.2,1995 Year edition of 10.6). This part of the People's Republic of China Ministry of Agriculture made and centralized. This part of the drafting unit. Ministry of Agriculture Pesticide Testing Institute. This part of the main drafters. Ding Rigao, Zhang Baoxiang, Tao Chuanjiang, Zhang Liying. This part of the previous version of the standard to replace the release of the situation.

--- GB/T 15670-1995. Pesticide registration toxicology test method Part 12. Short-term repeated inhalation exposure (28 days) Toxicity test

1 Scope

GB/T 15670.12-2017 is the Chinese national standard on toxicological test methods for pesticides registration - part 12: short-term repeated dose 28-day inhalation toxicity study, in the field of agriculture. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 12 July 2017 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 February 2018. Classification: ICS 65.100, CCS B17. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This part of GB/T 15670 specifies the basic principles, methods and requirements for short-term repeated inhalation exposure (28 days) toxicity test. This section applies to the short-term repeated inhalation exposure (28 days) toxicity test for pesticide registration.

2 Normative reference documents

The following documents are indispensable for the application of this document. For dated references, only the dated edition applies to this article Pieces. For undated references, the latest edition (including all modifications) applies to this document. Laboratory Animal Environment and Facilities

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 Short - term inhalation exposure to short - termrepeateddoseinhalationtoxicity The health damage effect caused by repeated inhalation of the test substance within 10% of the life of the experimental animal.

3.2 Inhalation dose inhaleddose Animal body weight The amount of the inhaled test substance, ie. Dih = ctRTvalpha (1) Where. Dih - Inhalation dose in milligrams per kilogram (mg/kg); c - the concentration of the test substance inhaled in milligrams per liter (mg/L); t - the duration of inhalation, in minutes (min); R - Respiratory rate, in minutes per minute (times/min); Tv - the tidal volume of the tested animals, in liters per liter (L/time); alpha

--- the retention factor associated with the reactivity and solubility of the test substance; W

--- weight, in kilograms (kg).

3.3 No adverse effects on dose levels observed Noobservedadverseeffectlevel; NOAEL Under the prescribed test conditions, the subject matter of the adverse effect associated with the exposure was not observed by the prior art means and the detection index High dose or concentration.