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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 15670.19-2017

Toxicological test methods for pesticides registration - Part 19: In vitro mammalian cells chromosome aberration test

农药登记毒理学试验方法 第19部分：体外哺乳动物细胞染色体畸变试验

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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 19 of GB/T 15670. This part is drafted in accordance with the rules given in GB/T 1.1-2009. 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. Zhang Hongwei, Zhang Liying, Tao Chuanjiang. Pesticide registration toxicology test method Part 19. In vitro mammalian cell chromosomes Distortion test

1 Scope

GB/T 15670.19-2017 is the Chinese national standard on toxicological test methods for pesticides registration - part 19: in vitro mammalian cells chromosome aberration test, 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 chromosomal aberrations in mammalian cells in vitro. This section applies to chromosomal aberration tests of in vitro mammalian cells 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.

GB/T 15670.14-2017 Pesticide registration - Toxicology test method - Part 14. Bacteria recovery mutation test

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 Structural distortion In the mid-phase phase of cell division, the chromosome structure detected by microscopy changes, manifested as missing, fragmented, interchange and so on. Structural distortion Can be divided into chromosome aberration (chromosome-typeaberration) and chromosome haplotype (chromatid-typeaberration) Two categories.

3.2 Chromosome haplotype Chromosome structure damage, manifested as staining of the monomer or fracture of the monomer.

3.3 Chromosome - type aberration The chromosomal structure is characterized by changes in fracture or rupture recombination at the same site of the two dyed monomers.

3.4 Mitotic index mitoticindex The ratio of the number of mesophase cells to the total number of cells observed is an indicator of the degree of cell proliferation.

3.5 Polyploid polyploidy The number of chromosomes in mammalian cells is normal diploid, and the number of chromosomes is multiplied by the action of chemical mutagens, Body, tetraploid and so on.