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

GB/T 13917.6-2009

Replacing GB/T 17322.6-1998

**Laboratory efficacy test methods and criteria of public health
insecticides for pesticide registration - Part 6: Liquid vaporizer**

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Foreword

GB/T 13917 "Laboratory efficacy test methods and criterions of public health insecticides for pesticide registration" is divided into 10 parts: - Part 1: Spray fluid; - Part 2: Aerosol; - Part 3: Smoke generator and smoke tablet; - Part 4: Mosquito coil; - Part 5: Vaporizing mat; - Part 6: Liquid vaporizer; - Part 7: Bait; - Part 8: Dutsable powder and chalk; - Part 9: Repellent; - Part 10: Analogous site. This part is Part 6 of GB/T 13917. This part replaces GB 13917.6-1992 "Efficacy test methods of public health insecticides for pesticides registration - Method of laboratory efficacy test for electric liquid", GB/T 17322.6-1998 "Laboratory efficacy criterions of public health insecticides for pesticide registration - Electric liquid repellent", GB/T 17322.7-1998 "Laboratory efficacy criterions of public health insecticides for pesticide registration - Electric solid-liquid repellent". As compared with GB 13917.6-1992, GB/T17322.6-1998, and GB/T17322.7- 1998, the main changes of this part are as follows: - COMBINE GB 13917.6-1992, GB/T 17322.6-1998, GB/T 17322.7-1998, to make the methods and evaluations are reflected in the same standard and facilitate application - MODIFY electrothermal liquid vaporizer to: liquid vaporizer; - For the requirements of standard test insects, MODIFY it into: Use standard test insects of laboratory-bred sensitive strains; - MODIFY and DEFINE the age of the tested insects; Laboratory efficacy test methods and criterions of public health insecticides for pesticide registration - Part 6: Liquid vaporizer

1 Scope

GB/T 13917.6-2009 is the Chinese national standard on laboratory efficacy test methods and criterions of public health insecticides for pesticide registration - part 6: liquid vaporizer, 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 27 March 2009 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 October 2009. 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 13917 specifies the indoor medicinal efficacy measurement methods and evaluation criterion for liquid vaporizer. This part applies to the efficacy test methods and criteria of public health insecticides for pesticide registration of liquid vaporizer.

2 Test materials

Standard test insects of sensitive strains raised in the laboratory. *Culex pipiens pallens* (Northern region) or *Culex pipiens quinquefasciatus* (Southern region), female adults which did not suck blood on days 3 to 5 after emergence.

3 Instrument and equipment

3.1 Cylinder device (Figure 1) The colorless transparent cylinder (C) is supported on the bracket (I); there is a colorless transparent circular plate (E, F) above and below the cylinder. The circular plate (E) has a circular hole in the center and is plugged with a rubber plug (G). The circular plate (F) has a circular hole in the center and plugged with a rubber plug (H). The joint between the cylinder and the circular plate (E, F) is lined with rubber gaskets (D1, D2) to prevent leakage of chemicals. B - Glass square box, 700 mm in length, width and height; C - Small door, 100 mm wide and high; D - Big door; E - Bracket; F - Insect hole, 50 mm in diameter. Figure 2 -- Square box device

3.3 Mosquito suction tube.

4 Test method

4.1 Test conditions Temperature: $(26 \pm 1) ^\circ\text{C}$; Relative humidity: $60\% \pm 10\%$.

4.2 Cylinder method

4.2.1 Setting of time interval According to the principle of "retaining the head, determining the tail, inserting three", determine five time interval for the efficacy test. That is, use the power on for 2 h and the recommended longest usage time for this product as the two time interval points of head and tail; then between the two time interval points, select 3 time interval points at equal spacing as the test time interval points.

4.2.2 Test procedure Use a cylindrical device (3.1). Suck in 30 test mosquitoes each test; put in the center circular hole of the circular plate (F); tightly close the rubber plug (H). After the test insects return to normal activities, place a heater that is continuously powered to the corresponding time point and carries the liquid vaporizer to be tested under the central hole of the circular plate (F), close to the central hole; generate smoke to kill it for 1 min. Immediately plug the stopper. Start timekeeping. Record the number of test insects that are knocked down at regular intervals. The observation time limit is 20 min. The test shall be repeated three or more times. At the end of each test, it shall clean the test equipment.