

Technical Requirement for Environmental Products
The Certificable Technical Requirement for Environmental Labelling Products
Healthy Insecticide Aerosol HJBZ 20—1997

1 Scope

This technical requirement specifies definition, category, basic requirement, technical content and test method for environmental labelling products of healthy insecticide aerosol.

This technical requirement shall apply to low toxicity, high efficiency, and safe healthy insecticide aerosol products.

2 Standards cited

Provisions in the following standards are cited in this technical requirement, and therefore form the provisions in this standard. They have the same effectiveness as the technical requirement itself.

GB 13917.2—92 Efficacy test methods of public health insecticides for pesticide registration—Method of laboratory efficacy test for aerosol

GB 13917.8—92 Efficacy test methods of public health insecticides for pesticide registration—Method of analogous site efficacy test

GB 15670—1995 Toxicological test methods of pesticides for registration

GB 13042—1991 Packaging containers—aerosol cans

In case of the criteria above are revised, the latest version should be applied.

3 Definition

3.1 "Healthy insecticide aerosol" refers to a type of product design to kill insects that may lead to diseases, which is composed of dose, propellant, aerosol packing container. And insecticide and other matter are sealed inside the packing container and are released in presetting form by pressure of the propellant.

3.2 "Half knockdown time (KT50)" refers to time of 50% testing insects are knocked down in test condition of given drug dose. Generally, it is expressed in minute.

3.3 "24-h lethality" means percent of dead insects in testing insects when the testing insects at end of test are transferred to a clean container and are fed for 24 hours. Generally, it is expressed in %.

3.4 "Half lethal dose (LD50)" means the drug dose that lead to death of half of the testing animals (insects). It is generally expressed in mg/kg. The higher the value is, the less toxicity would be (namely, higher value is safer). Acute oral toxicity and dermal toxicity are generally expressed by LD50.

3.5 "Medium lethal concentration (LC50)" means the drug concentration that lead to death of half of experiment animals (insects) in experiment, which is generally expressed in mg/m³. The higher that the value is, the less that the toxicity of the compound would be (namely, the safer that the compound would be). Acute inhalation toxicity is expressed by LC50.

4 Basic requirements

4.1 Quality of products shall conform with requirement of relevant product quality standard.

4.2 The products should have pesticide registration certificate in country-level and health licence in province-level.

4.3 Quality of aerosol pot should meet requirement of GB13042—1991.

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4.4 No CFCs are permitted to use as propellant in the product.

4.5 Pollutant emission of the company should be obliged to conform with pollutant emission standards nationally or locally.

5 Technical contents

5.1 As for indexes of toxicity, please see table 1.

Table 1 Toxicity indexes

Serial number	Items	Indexes
1	Skin/ eye irritation	Non irritating
2	Acute oral LD ₅₀ , mg/kg	≥5000
3	Acute inhalation LC ₅₀ , (2 h) mg/m ³	≥2000
4	Acute dermal LD ₅₀ , (4 h) mg/kg	≥5000

5.2 As for indexes of drug effect, please see table 2.

Table 2 Indexes of drug effect

Serial number	Items	Indexes	
Drug effect in laboratory	Mosquito, fly	KT ₅₀	≤6min
		24h lethality	≥95%
	Cockroach	KT ₅₀	≤8min
		24h lethality	≥85%
		48h lethality	≥95%
Drug effect in simulated spot	Mosquito, fly	72h lethality	100%
		1h knockdown rate	≥85%
	Cockroach	24h lethality	≥95%
		1h knockdown rate	≥80%
		24h lethality	≥80%
	48h lethality	≥90%	
	72h lethality	100%	

6 Test

6.1 Indexes of toxicity of products should be tested according to "Toxicological test methods of pesticides for registration" (GB 15670 - 1995).

6.2 Drug effect in laboratory in drug effect indexes of products should be tested according to "Efficacy test methods of public health insecticides for pesticide registration—Method of laboratory efficacy test for aerosol" (GB 13917.2—92); and drug effect in simulated spot should be measured according to "Efficacy test methods of public health insecticides for pesticide registration—Method of analogous site efficacy test" (GB 13917.8—92).

Annotations:

This technical requirement has been prepared by Department of Science, Technology and Standards of State Environment Protection Administration.

The State Environment Protection Administration keeps the right of interpretation for this technical requirement.