

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

SN/T 5128-2019

**Phytosanitary fumigation with ethyl formate for control of
Phenacoccus solenopsis on green plants**

重要绿植扶桑绵粉蚧甲酸乙酯检疫熏蒸处理方法

(English Translation)

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

Please note that some elements of this document may involve patents. Publication of this document the agency is not responsible for identifying these patents.

This standard is proposed and managed by the General Administration of Customs of the People's Republic of China.

This standard was drafted. China Academy of Inspection and Quarantine, Guangzhou Customs, Linyi Customs Comprehensive Technical Service Center.

1 Scope

This standard applies to the use of ethyl formate for quarantine and fumigation treatment of hibiscus cotton powder carried in common import and export green plants.

2 Normative references

The following documents are essential for the application of this document. For dated references, only the dated version applies to this article. For undated references, the latest version (including all amendments) applies to this document.

SN/T 3282 Basic requirements for quarantine fumigation treatment
SN/T 1143 Operation rules for fumigation treatment of plant pests in fumigation store
Decree No. 326 of the State Council of the People's Republic of China on "Pesticide Management Regulations of the People's Republic of China"
Order of the State Council of the People's Republic of China No. 591 "Regulations on the Safety Management of Dangerous Chemicals"

3 Terms and definitions

The following terms and definitions apply to this document.

Gas balance; can also be stored as a pure agent, using carbon dioxide or nitrogen as a carrier gas, and brought into the fumigation facility. The fumigant is officially approved be usable.

4.1 Fumigant

The procurement, transportation, storage and use of fumigants should meet the Regulations of the People's Republic of China on Pesticide Management and the Regulations require that it be carried out in a ventilated, low-temperature and dry environment as far as possible, away from open flames, static electricity, and effectively isolated from oxidants.

4.2 Fumigation facilities and equipment

Fumigation facilities should have excellent air tightness, thermal insulation and gas circulation capabilities, and be equipped with a professionally designed ethyl formate gasification dosing device.

Equipment, its technical parameters should meet the relevant requirements of SN/T 3282.

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4.3 Concentration detection and alarm device

The sensitivity of the ethyl formate fumigant vapor concentration detector must reach 0.1g/m³, and the accuracy should be greater than 3% of the full range;

The sensitivity of the tester is better than 10ml/m³ (ppm), and the accuracy is higher than 5%.

4.4 Temperature detection equipment

The temperature detection equipment should have a sensitivity of 0.1 ° C and an accuracy of not less than ± 0.5 ° C.

4.5 Safety protection equipment

Equipped with effective safety protection equipment such as canister type gas mask or positive pressure air respirator, protective gloves and protective equipment as required Clothing, etc., used for fumigation treatment safety protection.

5.1 Processing goals

While killing the hibiscus cotton mealworms at different developmental stages, the quality of greenery products is not affected.

5.2 Technical parameters

The technical indicators for quarantine and fumigation treatment of hibiscus powder and ethyl formate are shown in Table 1. The minimum concentration requirements during fumigation are shown in Table 2. Common green plants See Appendix A for tolerance thresholds for quarantine fumigation treatment of ethyl formate. In view of the large differences in tolerance of different varieties of green plants to ethyl formate, After a small amount of fumigation test, commercial fumigation is carried out. Ethyl formate has lower phytotoxicity in a lower temperature environment.

Fumigation treatment is performed at a low temperature. See Appendix B for common host green plants.

Table 1 Technical indicators for quarantine and fumigation treatment of hibiscus powder and ethyl formate

Temperature (°C)	Dose (g/m ³)	Fumigation time (h)
5-9.9	60	4
10-14.9	55	4
15-19.9	50	4
20-24.9	45	4
≥ 25	40	4

Table 2 Minimum concentration requirements during fumigation

Fumigation time	0.5h	2h	4h
the lowest concentration is	80% of the dosage	50% of the dosage	30% of the dosage

6.1 Preparation before fumigation

Cargo loading rate is not higher than 35%, determine the fumigation temperature with reference to the relevant requirements of Sn/T 1143, and turn on temperature control equipment if necessary.

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Determine fumigation plan and seal fumigation facilities.

6.2 Fumigation and administration

Turn on the circulation equipment, and according to the fumigation plan, refer to the relevant requirements of Sn/T 1143, and use the special dosing equipment for ethyl formate gas.

Put in the specified amount of fumigant and start fumigation. During fumigation treatment, the circulation equipment should be continuously turned on to ensure uniform distribution of fumigant gas. with at that time, the fumigant gas concentration detection and recording shall be carried out according to the time specified in Table 2. The average value of the concentration test shall not be lower than the minimum value specified in Table 2.

Concentration requirements.

6.3 Ventilation

After the specified fumigation time is reached, the remaining fumigant gas in the fumigation facility is discharged at a high altitude while maintaining the fumigation temperature. When fumigation facilities when the concentration of ethyl lactamate falls below 0.33 g/m³, ventilation is terminated.

7 Result judgment

After the fumigation, if the concentration of ethyl formate gas detected at each time point is not lower than the minimum concentration specified in Table 2, a fumigation treatment will be issued.

report.

8 Emergency treatment

When a quarantine fumigant leaks, contaminates the skin, or inhales, it should be quickly removed from the scene and cleaned and ventilated in a timely manner.

Hospital emergency.

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