

Approved by General Administration of Quality Supervision,

Inspection and Quarantine of the People's Republic of China

GBW(E) 060619

Certificate of Reference Material

Purity of Chlorothalonil

Sample Number:

Date of Certification:

National Institute of Metrology (NIM)

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1. Description of Material & Intended Use

This certified reference material (CRM) is mainly used for pesticide residue test in areas such as environmental and food analysis, and for quality control, calibration of instruments, assessment of measurement methods and the like in pesticide production and test laboratory.

2. Sample Preparation

The CRM candidate is produced by custom-making a pure pesticide, further purifying the pesticide in terms of its physical and chemical properties through extraction, recrystallization, column chromatography and the like, confirming by preliminary qualitative analysis, drying and aliquoting. (CAS number: 1897-45-6).

3. Traceability and Certification

Two accurate and reliable measurement methods with distinct principles, HPLC (UV detector) and differential scanning calorimetry, are used to determine and certify the purity of RM. The traceability linkage is established using measuring protocols and instruments which meet the needs of the metrological community to be served.

4. Property Values and Uncertainty

Number	Name	Certified value (%)	Relative expanded uncertainty (%) ($k=2$)
GBW (E) 060619	RM of Chlorothalonil Pesticide	99.8	0.4

Certified purity of the main component and impurities such as moisture contributes to the uncertainty of certified values of CRM.

5. Constituency Check and Stability Test

According to the requirement of national technique criterion on CRM, the CRM aliquots are sampled, and consistency check and stability test in terms of purity are performed via HPLC (UV detector). The results demonstrated good consistency and stability.

The recommended minimum sampling amount is 3 mg.

This CRM shows good stability in follow-up test, and the period of validity of this CRM is set for 2 years from the Date of Certification. The stability of this CRM will be monitored by NIM in the future. The user will be promptly informed, if the value is found to vary during the period of validity.

6. Instructions for Package, Storage and Use

1. Package: This CRM is packaged in a brown glass bottle with screw-top, and each bottle contains no less than 200 mg of this CRM.

2. Storage and Usage: This CRM should be stored in cool, dark and dry condition. This RM should not be used until it is dried for more than 48 hours in P_2O_5 drier in order to

remove the moisture.

3. This CRM is toxic and harmful. Appropriate protection is required when using it. Inhalation and skin contact should be avoided. After a small aliquot of the CRM is taken out, the bottle should be promptly sealed again and stored under the specified condition.

STATEMENT

1. This CRM has a limited use in scientific research and analytical measurement. NIM is not responsible for any loss caused by improper use and storage of this CRM by the customer.
2. Please check the status of reference materials as soon as the sample arrives. The incurred maximum compensation will be exclusively restricted to the CRM itself, and no others should be claimed.
3. The certificate is only valid with the complete file stamped by NIM RM. Please keep the integrity of the certificate.
4. If more information about the CRM is required, please contact the technical service section.

