National Certified Reference Material (NCRM)

Code: GBW08776

Certificate of Certified Reference Material

Thiacloprid in Acetonitrile

Batch Number：

Certification Date：

Period of Validity：

Reference Material Producer：National Institute of Metrology
Address：No.18, Bei San Huan Dong Lu, Chaoyang Dist, Beijing
P.R.China, 100029
Telephone：+86(10)64524710
Email：crm-service@nim.ac.cn
Version：1.0

The present CRM mainly applies to pesticide detection in food and other fields, quality control of the producers and testing laboratories, calibration of analytical instruments, verification and validation of measurement methods, etc.

1. Sample preparation

The material of the CRM is pure thiacloprid, formula: $C_{10}H_9ClN_4S$, CAS number: 111988-49-9. The pure material was gravimetrically prepared to a volumetric flask by adding acetonitrile under room temperature, and then was sub-packaged into clean brown ampules.

2. Traceability and certifying

The certified value of the CRM solution is using the prepared value by gravimetric-volumetric method with solid material. By using the certified reference material of thiacloprid (GBW06168) traceability guaranteed, and the certified/calibrated mass and volume measuring instruments, the property value can be traced to the SI unit kilogram (kg), mole (mol) and the national legal volume unit liter (L).

3. Property Value and Uncertainty

The property value and expanded uncertainty are as follows:

Code	Name	Property value	Relative uncertainty (%) (k=2)
GBW08776	Thiacloprid in Acetonitrile	10.0 μg/mL	1

The coverage factor was chosen to obtain an approximate 95% level of confidence. The uncertainty evaluation considered sources from characterization, between-unit homogeneity and stability.

4. Homogeneity and stability

According to national technical specification of JJF1343 (equivalent to ISO Guide 35), homogeneity and stability study for this certified reference material were carried out through random sampling of sub-packaged samples followed by HPLC-DAD method. The results demonstrated good homogeneity and stability 20℃ for long-term stability.

The period of validity of this CRM is 36 months since the date of certification. The stability of this CRM is regularly monitored by NIM, during this period the customer will be informed of any change of the certified value just-in-less-time.

5. Packaging, storage and using

Packaging: The CRM is packaged in clean brown ampules. Each contains no less than 2 mL of sample.

Storage: The CRM should be kept in dark, room temperature (20°C), away from light.

Use: The CRM should be sealed as soon as possible after sampling.

Caution: The CRM is toxic and harmful, pay attention to avoid inhalation or contact with skin when using the material.

National Institution of metrology P.R. China Address: No. 18 East Road North San Huan, Beijing
Post Code: 100029
Tel for distribution: +86(10)64524710. Tel for technical consultation: +86(10)64524784
Fax: +86(10) 64524716 Website: www.nim.ac.cn ; www.ncrm.org.cn