

ICS 65.100.30
CCS G 25



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

GB 22622-2008

Propamocarb hydrochloride aqueous solution

霜霉威盐酸盐水剂

(English Translation)

Issued on: December 17, 2008

Implemented on: June 1, 2009

Issued by: Standardization Administration of China

Table of Contents

Foreword

2 Normative references

3 Requirements

4.1 Sampling

4.2 Identification Test

4.3 Determination of propamocarb hydrochloride salt mass fraction

4.4 Determination of water insoluble mass fraction

4.6 Dilution stability test

4.7 Low temperature stability test

4.8 Thermal storage stability test

4.9 Product testing and acceptance

5 Marking, labeling, packaging, storage and transportation

Foreword

The standard Chapter 3, Chapter 5 are mandatory, the rest are recommended.

Appendix A of this standard is an informative annex.

The standard proposed by China Petroleum and Chemical Industry Association.

This standard by the National Standardization Technical Committee on Pesticides (SAC/TC133) centralized.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

Determination of GB/T 1601 Pesticides pH value GB/T 1604 Goods pesticide regulations for acceptance GB/T 1605-2001 Sampling Method commercial pesticides GB 3796 pesticide packaging General GB/T 4472 chemical product density, relative density measurement General GB/T 19137-2003 Pesticide cryogenic stability Determination 19136-2003 Thermal storage stability of pesticides GB/T Determination

3 Requirements

3.1

Composition and appearance. This product should be compliant propamocarb (hydrochloride) original drug or propamocarb hydrochloride parent drug is made, the appearance of a homogeneous liquid Body, no obvious suspended solids and sediments.

3.2

propamocarb hydrochloride salt water should meet the requirements of Table 1.

Table 1 propamocarb hydrochloride salt water control project indicators

project

index

722g/L 35.0%

Propamocarb hydrochloride salt mass fraction a /% 66.5 ± 2.5 35.0 ± 1.8 Propamocarb hydrochloride concentration (20 °C) / (g/L) 722 ± 25 -Water-insoluble mass fraction /% ≤ 0.3 pH range of 3.0 to 7.0 Dilution stability (diluted 20 times) Qualified Low temperature stability b a qualified Thermal storage stability b a qualified when a dispute arises when quality to propamocarb mass fraction of arbitration.

b low temperature stability, thermal storage stability test under normal production conditions, every 3 months test at least once.

Test Method 4

4.1 Sampling

Carried out according to GB/T 1605-2001 "liquid formulation sampling" method. Determined by sampling a random number table method packages, the final sample size not less than 250mL.

4.2 Identification Test

HPLC --- The identification test can be carried out simultaneously with the determination of propamocarb hydrochloride salt mass fraction. In the same chromatographic operation Under the conditions, the sample solution to a chromatographic retention time and the standard solution of the main peak retention time, the relative difference should 1.5% or less.

4.3.1 Method summary

Sample was dissolved in distilled water to acetonitrile + 1.5% ammonia water as the mobile phase, to use the hybrid silica as filler and alkali resistance condition C18 is not Stainless steel column and UV detector, other than the standard method of sample propamocarb reverse phase HPLC separation and determination. It can also be used to Si100 is filling a stainless steel column and UV detector to detect chromatographic operating conditions, see Appendix A.

4.3.2 Reagents and solutions

Acetonitrile. HPLC grade;

Water. The new secondary steam distilled water;

Propamocarb (or propamocarb hydrochloride) standard. a known mass fraction $\geq 99.0\%$.

4.3.3 Instruments

High performance liquid chromatography. a variable wavelength UV detector and quantitative injection valve;

Chromatographic data processor or chromatography workstation;

Column. 150mm x 3.9mm (i.d.) Stainless steel column, built XTerraRP18,5 μ m filler (or other equivalent effect color the column);

Filter. pore size of about 0.45 μ m;

Micro injector. 50 μ L;

Ultrasonic cleaner.

4.3.4 HPLC operating conditions

Mobile phase. psi (acetonitrile .1.5% aqueous ammonia) = 20.80;

The mobile phase flow rate. 1.0mL/min;

Column temperature. room temperature (temperature change should not exceed 2 °C);

Detection wavelength. 210nm;

Injection volume. 20 μ L;

Retention time. propamocarb about 5.8min.

HPLC operating conditions described above, the Department of typical operating parameters. According to the characteristics of different instruments, given operating parameters adjusted as appropriate, in order to obtain the best results. HPLC view of a

typical propamocarb hydrochloride salt water is shown in Figure 1.

1 --- propamocarb.

Figure 1 propamocarb hydrochloride salt water by high performance liquid chromatogram

4.3.5.1 Sample solution preparation

Weigh propamocarb (propamocarb hydrochloride) Sample of about 0.05g (accurate to 0.0002g), placed in 100mL volumetric flask with distilled water solution Solution and diluted to the mark.

4.3.5.2 Sample solution preparation

Weigh containing propamocarb approximately 0.05g sample (accurate to 0.0002g), placed in 100mL volumetric flask, and diluted with distilled water to the mark. Through 0.45μm membrane filter and set aside.

4.3.5.3 1.5% ammonia preparation 1000mL of distilled water, was added 15mL accurate mass fraction of about 25% aqueous ammonia, shake. Through 0.45μm membrane filter, stand-by.

4.3.5.4 Determination

Under the above chromatographic operating conditions, after the instrument is stable, continuous injection of several doses of the standard solution until the two adjacent needles propamocarb relative peak area After the change of less than 1.5%, according to the solution, sample solution, sample solution, standard order of standard solution was measured.

4.3.6 Calculation

The two doses of the standard solution of two injections of the sample solution and measured before and after the sample solution propamocarb peak areas are averaged. Cream sample the mass fraction of propamocarb hydrochloride 1 (%) according to equation (1) (standard when propamocarb hydrochloride) or formula (2) (standard of propamocarb time) is calculated, Mass concentration rho propamocarb hydrochloride (g/L) according to equation (3) is calculated.

Where.

A1 --- the standard solution, the average propamocarb peak area;

A2 --- sample solution, the average propamocarb peak area;

224.7 --- molecular weight propamocarb hydrochloride;

188.3 --- propamocarb molecular weight;