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

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Cartap hydrochloride water soluble powders

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(English Translation)

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Foreword

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

The standard proposed by China Petroleum and Chemical Industry Association.

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

1 Scope

This standard specifies the CARTAP soluble powders requirements, test methods and marking, labeling, packaging, storage and transportation.

This standard applies to the original drug CARTAP, CARTAP soluble powders suitable additives and fillers processed into.

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.

GB/T 1600 Determination of Water Pesticides Determination of GB/T 1601 Pesticides pH value GB/T 1603 Determination of emulsion stability of pesticide GB/T 1604 Goods pesticide regulations for acceptance GB/T 1605-2001 Sampling Method commercial pesticides GB 3796 pesticide packaging General GB/T 19136 Determination of Pesticide Thermal storage stability

3.1 Composition and appearance

This product should be compliant CARTAP original drug is made, the appearance of a homogeneous loose powder, without clumps.

3.2 CARTAP soluble powders should meet the requirements of Table 1.

Table 1 CARTAP soluble powders Control Project Index

project

index

50% 95%

CARTAP mass fraction /% 50.0 + 95.0 + 2.5-2.5 2.5-2.5 Moisture content /% $\leq$ 3.0 1.5 Score a /% Water insoluble mass $\leq$ 0.6 pH range 3.0 to 6.0 the degree of dissolution and solution stability (through 75 μ m sieve) a /% (5min after residue) $\leq$ (18h after residue) $\leq$ 1.0 0.05 Thermal storage stability test a qualified a normal production of water insoluble matter, the degree of dissolution and solution stability, thermal storage stability test every three months at least once.

Test Method 4

4.1 Sampling

According to GB/T 1605-2001 "on solid preparation sampling" approach. Determined by sampling a random number table method packages, the final sample size not less than 300g.

4.2 Identification Test

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

Determination of the mass fraction of 4.3 CARTAP

4.3.1 Method summary

Phosphoric acid aqueous sample was dissolved in heptane solution of sodium + acetonitrile as mobile phase, to use as filler Capcel-PakC18 stainless steel Column and UV detector (225nm), the sample of CARTAP reverse phase high performance liquid chromatography, external standard.

4.3.2 Reagents and solutions

Acetonitrile. HPLC grade;

Water. The new secondary steam distilled water;

Phosphoric acid;

Phosphoric acid. water with phosphoric acid adjusted to pH 2.5;

Geng sodium;

Triethylamine;

Heptane sulfonate solution. Weigh 3.64g of sodium heptanoate in 1L wide-mouth bottle, add distilled water 900mL secondary shaking to dissolve, Phosphoric acid was added 16mL; then triethylamine adjusted to pH 2.0;

CARTAP standard. a known mass fraction $\geq 99.0\%$.

4.3.3 Instruments

High performance liquid chromatography. a variable wavelength UV detector;

Chromatographic data processor or chromatography workstation;

Column. 200mm x 4.6mm (i.d) stainless steel column, built Capcel-PakC18, 5 μ m filler (or with equivalent effect color the column);

Filter. pore size of about 0.45 μ m;

Micro injector. 50 μ L;

Quantitative sample line. 10 μ L;

Ultrasonic cleaner.

4.3.4 HPLC operating conditions

Mobile phase. psi (heptane solution of sodium. acetonitrile) = 90:10, with 0.45 μ m filter membrane, ultrasound 10min spare;

Flow rate. 1.0mL/min;

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

Detection wavelength. 225nm;

Injection volume. 10μL;

Retention time. 7.4min.

It said operating parameters are typical, according to the characteristics of different instruments, given operating parameters adjusted as appropriate, in order to obtain the best results.

Typical CARTAP soluble powders HPLC is shown in Figure 1.

1 --- CARTAP.

Figure 1 CARTAP soluble powders by high performance liquid chromatogram

4.3.5.1 Preparation of standard solution

Weigh 0.05g (accurate to 0.0002g) CARTAP standard, a 50mL volumetric flask, dissolved in aqueous phosphoric acid and diluted to the mark Degree, shake.

4.3.5.2 Preparation of sample solution

Weigh containing CARTAP 0.05g (accurate to 0.0002g) sample, placed in 50mL volumetric flask, and diluted with aqueous phosphoric acid to the mark.

4.3.5.3 Determination

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

4.3.5.4 Calculation

The two needle sample solution and measured before and after the two doses of the standard sample solution fenitrothion Danfeng area were averaged. Sample CARTAP the mass fraction of 1 (%) according to equation (1).

Where.

A1 --- standard solution, fenitrothion mean Danfeng area;

A2 --- sample solution, fenitrothion mean Danfeng area;

--- CARTAP standard mass fraction, expressed as a percentage.