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Clomazone technical

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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 different Grass Matsubara drugs requirements, test methods and marking, labeling, packaging, storage and transportation.

This standard applies to the different Different impurity generated in the production of grass and pine composition Grass Matsubara drugs.

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.

Preparation of GB/T 601 chemical reagent standard titration solution GB/T 603 chemical reagent in test methods - Preparations with GB/T 1600 Determination of Water Pesticides GB/T 1604 Goods pesticide regulations for acceptance GB/T 1605-2001 Sampling Method commercial pesticides GB 3796 pesticide packaging General GB/T 19138 Determination of acetone insoluble pesticide

3.1 Appearance

Colorless to pale yellow viscous liquid or white to pale yellow solid, semi-solid substance.

3.2 Technical Specifications

Grass Matsubara drugs should also meet the requirements of Table 1.

Table 1 and grass Matsubara drugs control projects index

Item Index

Grass loose mass fraction /% ≥ 93.0 Acidity (H₂SO₄ meter) /% ≤ 0.3 Moisture /% ≤ 0.5
Acetone insolubles a /% ≤ 0.2 Insoluble in acetone measured at least once every 3 months a normal production.

Test Method 4

4.1 Sampling

According to GB/T 1605-2001 "on the original drug product sampling" approach. Determining sample package using a random number table method; the final sample size not less than 100g.

4.2 Identification Test

--- The liquid chromatography with different identification test Determination of the mass fraction of loose grass simultaneously. Under the same chromatographic operating conditions, the sample solution to a chromatographic retention time and different standard solution Pine grass chromatographic retention time, the relative difference should be 1.5% Fewer.

Infrared spectroscopy and different specimen ---Grass loose standard in the range 4000cm⁻¹ ~ 400cm⁻¹ infrared absorption spectrum should not significantly the difference. different Grass loose standard infrared spectrum is shown in Figure 1.

1 Yi Cao loose standard infrared spectrum

4.3.1 Method summary

Sample was dissolved in methanol, acetonitrile + water as the mobile phase, to use as filler AgilentTC-C18 stainless steel column and UV detector 236nm wavelength, the sample of the different grass pine reverse phase HPLC separation and determination of external standard.

4.3.2 Reagents and solutions

Methanol. HPLC grade;

Acetonitrile. HPLC grade;

Water. The new secondary steam distilled water;

Grass Song Sample. a known mass fraction, $\geq 98.0\%$.

4.3.3 Instruments

High performance liquid chromatography. a variable wavelength UV detector;

Chromatographic data processor or chromatography workstation;

Column. 250mm x 4.6mm (I.d) stainless steel column, built AgilentTC-C18, 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. 5 μ L;

Ultrasonic cleaner.

4.3.4 HPLC operating conditions

Mobile phase. psi (acetonitrile. water) = 50.50, by membrane filtration, and degassing;

Flow rate. 1.0mL/min;

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

Detection wavelength. 236nm;

Injection volume. 5 μ L;

Retention time. iso

Grass loose about 11.0min.

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 differences

Grass Matsubara drugs HPLC is shown in Figure 2.

1 --- Yi Cao loose.

Figure 2 HPLC and grass Matsubara drugs

4.3.5.1 Preparation of standard solution

Weigh 0.2g (accurate to 0.0002g) and grass loose standard in 50mL volumetric flask, dissolved in methanol and diluted to the mark.

Using a pipette to take the above solution 10mL in 50mL volumetric flask, diluted with methanol to the mark.

4.3.5.2 Preparation of sample solution

Weigh Iso

Grass pine 0.2g (accurate to 0.0002g) sample in 50mL volumetric flask, dissolved in methanol and diluted to the mark, shake uniform. Using a pipette to take the above solution 10mL in 50mL volumetric flask, diluted with methanol 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 iso Peak area becomes relatively loose grass After less than 1.2% of the solution in accordance with the sample solution, the sample solution and standard sequence of the standard solution was measured.

4.3.6 Calculation

The measured before and after the two-needle sample solution and sample two different doses of the standard solution Grass Pine Peak area were averaged. Sample different Grass loose mass fraction of 1 (%), according to equation (1).

$$1 = A2$$

Where.

--- Yi Cao Song Sample mass fraction, expressed as a percentage;

A1 --- the standard solution, the average peak area of pine and grass;

A2 --- sample solution, the average peak area of pine and grass;