

ICS 65.100.30
CCS G 25



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

GB 28145-2011

Gibberellic acid water soluble powders

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(English Translation)

Issued on: December 30, 2011

Implemented on: April 15, 2012

Issued by: Standardization Administration of China

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Foreword

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

This standard was drafted in accordance with GB/T 1.1-2009 given rules.

Please note that some content of this document may involve patents, the issuing authority of this document does not assume responsibility for the identification of these patents.

The standard proposed by China Petroleum and Chemical Industry Association.

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

This standard was drafted. the Ministry of Agriculture, Jiangxi Ruifeng Sheng Chemical Co., Ltd., Zhejiang Qianjiang Biochemical Co., Shanghai with the Swiss biotechnology company.

1 Scope

This standard specifies the gibberellic acid-soluble powder requirements, test methods and marking, labeling, packaging, storage and warranty.

This standard applies to the processing by the original drug gibberellic acid, vectors and suitable additives made of gibberellic acid-soluble powder.

Note: Other name, structural formula and basic physicochemical parameters of gibberellic acid in Appendix A.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

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 5451 WP Pesticide wettability measurement method GB/T 6682-2008 analytical laboratory use specifications and test methods (ISO 3696. 1987, MOD) GB/T 8170-2008 revised value represents about rules and limit values and judgment GB/T 19136 Determination of Pesticide Thermal storage stability

3.1 Composition and appearance

This product should meet the standards of the original drug gibberellic acid, carriers and additives made, it should be uniform powder.

3.2 Technical Specifications

Gibberellic acid-soluble powder shall comply with the requirements in Table 1.

Table 1 gibberellic acid-soluble powders Control Project Index

project

index

3% 10% 20% 40%

Gibberellic acid mass fraction /% 1.0 to 1.0 20.0 10.0 3.0 0.3-0.3 2.0-2.0 1.2-1.2 40.0 pH range of 3.0 to 7.0 Wetting time/s <= 40 the degree of dissolution and solution stability (through 75µm standard sieve) /% (5min after residue) <= (18h after residue) <= 5.0 1.0 Persistent foaming (foam volume after 1min)/mL <= 25 Thermal storage stability test a

qualified when a heat storage stability test for detection of normal production at least once every three months.

Test Method 4

Safety Tips. Use of this standard shall have practical experience of laboratory personnel work. This standard does not point out all of the safety issues. Make with those who have the responsibility to take appropriate safety and health practices and to ensure compliance with the relevant national regulations.

4.1 General provisions

This standard reagents and water in the absence of other requirements specified, refers to three analytical reagent and GB/T 6682-2008 specified in water. Test results determined in accordance with GB/T 8170-2008 4.3.3 Rounding the value comparison method.

4.2 Sampling

According to GB/T 1605-2001 "on solid preparation sampling" approach. Random sampling method is determined by the package, the final sample size should not be Less than 300g.

4.3 Identification Test

The identification test can be carried out simultaneously with the determination of the mass fraction of gibberellic acid. Under the same chromatographic operating conditions, the main sample solution chromatogram Retention time and peak standard solution of gibberellic acid chromatographic peak retention time, the relative difference should be less than 1.5%.

4.4.1 Method summary

Sample dissolved in mobile phase, methanol - phosphoric acid as the mobile phase, use as filler to C18 stainless steel column and UV detector, for Gibberellic acid in the sample by reverse phase HPLC separation and determination of external standard.

4.4.2 Reagents and solutions

Phosphoric acid;

Methanol. HPLC grade;

Water. The new secondary steam distilled water;

Phosphoric acid. [Psi] (water. phosphoric acid) = 2000.1;

Gibberellic acid standard sample. a known mass fraction $w \geq 98.0\%$.

4.4.3 Instruments

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

Chromatographic data processor or chromatography workstation;

Column. 250mm x 4.6mm (id) stainless steel column, built ZORBAXEXTENDC18,5 μ m filler (or with the same Other effects such as columns);

Micro injector. 100 μ L;

Filter. pore size of about 0.45 μ m;

Ultrasonic cleaner.

4.4.4 HPLC operating conditions

Mobile phase. [Psi] (methanol. aqueous phosphoric acid solution) = 35.65;

Flow rate. 1.0mL/min;

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

Detection wavelength. 210nm;

Injection volume. 10 μ L.

Retention time. gibberellic acid about 8.2min.

HPLC operating conditions described above, the Department of typical operating parameters, according to the characteristics of different instruments, given operating parameters to make appropriate adjustments to to obtain the best results. Typical gibberellic acid-soluble powders HPLC is shown in Figure 1.

1 --- gibberellic acid.

Figure 1 gibberellic acid-soluble powder by high performance liquid chromatogram

4.4.5.1 Preparation of standard solution

Weigh gibberellic acid standard about 0.05g (accurate to 0.0002g), placed in 100mL flask, add 35mL of methanol to dissolve, then Phosphoric acid aqueous solution was diluted to the mark.

4.4.5.2 Preparation of the sample solution

Weigh a sample containing about 0.05g of gibberellic acid (accurate to 0.0002g), placed in 100mL flask, add 35mL of methanol to dissolve, Phosphoric acid aqueous solution and then diluted to the mark. Filtered through a 0.45 μ m pore size filters.