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

**GB 28154-2011**

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**75% Nicosulfuron water dispersible granules**

75%烟嘧磺隆水分散粒剂

**(English Translation)**

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| 5.1 Marking, labeling, packaging                                    |
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### Foreword

This standard in Chapter 3, Section 5 is mandatory, the rest are recommended.

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

This draft standard method using the reformed modified using FAO Specifications 709/WG (May2006) "nicosulfuron water dispersible granules." this standard FAO Specification 709/WG (May2006) and the main technical difference Cause "nicosulfuron water dispersible granules" are as follows.

--- This standard suspension rate  $\geq 80\%$ , FAO Specifications predetermined suspension

ratio  $\geq 70\%$ ;

This standard specifies --- dispersibility (after 1min)  $\geq 90\%$ , FAO Specifications predetermined dispersibility (after 1min)  $\geq 70\%$ ;

--- This standard specifies Persistent foaming (foam volume after 1min) is  $\leq 40\text{mL}$ , FAO specifications as prescribed Persistent foaming (1min After)  $\leq 60\text{mL}$ ;

--- This standard size ( $250\mu\text{m} \sim 1180\mu\text{m}$ )  $\geq 95\%$ , FAO Specifications predetermined control dust and flowability two indicators, Kam at present there is no test to these two methods, the present standard two alternative dust and mobility index with product size;

--- The standard controlling the moisture content and pH range of two indicators, FAO specifications uncontrolled these two indicators.

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

The standard proposed by China Petroleum and Chemical Industry Federation.

This standard by the National Pesticide Standardization Technical Committee (SAC/TC133).

This standard is drafted. Shenyang Chemical Research Institute Co., Ltd.

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## 1 Scope

This standard specifies nicosulfuron water dispersible granules of requirements, test methods and marking, labeling, packaging, storage, guarantee period.

This standard applies to the processing by the original drug nicosulfuron, carriers and adjuvants nicosulfuron made water dispersible granules.

**Note:** Other names, structural formulas and physicochemical parameters of the basic nicosulfuron See Appendix A.

## 2 Normative references

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

GB/T 1600 Pesticide Method Moisture Determination 1601 pH value pesticides GB/T GB/T 1604 pesticide regulations for acceptance of goods GB/T 1605-2001 sampling commercial

pesticides GB 3796 pesticide packaging General GB/T 5451 method for measuring the wettability of agrochemical wettable GB/T 6682-2008 analytical laboratory use specifications and test methods (ISO 3696. 1987, MOD) GB/T 8170-2008 rounding off means about rules and determining limiting values GB/T 14825-2006 Method for determination of pesticide suspension GB/T 16150 pesticide powders, wettable powder fineness measurement method GB T 19136 Determination of heat storage stability of pesticide /

### 3.1 Composition and appearance

This product should be compliant nicosulfuron the drug and appropriate processing auxiliaries and fillers are made as a dry, free-flowing solid particles Grain, almost no powder, no lumps visible and extraneous matter.

### 3.2 Technical Specifications

Nicosulfuron WG should meet the requirements in Table 1.

Table 1 nicosulfuron WDG control program Index

Item Index

Nicosulfuron mass fraction /% 2.5-2.5 75.0 Moisture content /%  $\leq 3.0$  the pH range of 4.0 to 7.0 TABLE 1 (cont.) Item Index Wetting time/s  $\leq 20$  Fineness (75 $\mu\text{m}$  test sieve) /%  $\geq 98$  Suspension rate /%  $\geq 80$  Particle size (250 $\mu\text{m}$  ~ 1180 $\mu\text{m}$ ) /%  $\geq 95$  Dispersibility /%  $\geq 90$  Persistent foaming (amount of foam after 1min)/mL  $\leq 40$  Passing a heat storage stability when a normal production, the thermal storage stability test was measured at least once every three months.

Test Method 4

Safety Tips. to use this standard shall have practical experience of laboratory work. This standard does not indicate any safety issues. Make with those who have the responsibility to take appropriate safety and health practices and to ensure compliance with the provisions of relevant state laws and regulations.

### 4.1 General provisions

This standard reagent in the absence of water and other requirements stated, refer to three predetermined analytical reagents and GB/T 6682-2008 of water. The test results performed by determining 4.3.3 rounding value in comparison 8170-2008 GB/T .

### 4.2 Sampling

Carried out in GB/T 1605-2001 of "commodity solid preparation sampling" approach. Determining Sample packages with a random number table method; final draw Sample size

should be no less than 1000g.

### 4.3 Identification Test

The present liquid chromatography --- identification test can be carried out simultaneously with the measurement nicosulfuron mass fraction. Chromatography under the same operating conditions, Sample solution of a chromatographic peak with a retention time of the standard solution nicosulfuron retention time of the peaks, the relative difference should 1.2% or less.

#### 4.4.1 Method summary

Sample was dissolved in acetonitrile aqueous ammonia solution, acetic acid aqueous acetonitrile as the mobile phase, used as a filler stainless SymmetryC18 Column and a UV detector (240nm), the sample nicosulfuron and high performance liquid chromatography assay.

#### 4.4.2 Reagents and solutions

Acetonitrile (HPLC grade);

Water. The new secondary steam distilled water;

Glacial acetic acid;

Aqueous ammonia ( $\text{NH}_3 \cdot \text{H}_2\text{O}$ ).  $w(\text{NH}_3) = 26\% \sim 30\%$ ;

Ammonia solution.  $\rho(\text{H}_2\text{O} \cdot \text{NH}_3 \cdot \text{H}_2\text{O}) = 300.1$ ;

Ammonia solution in acetonitrile.  $[\rho]$  (acetonitrile. ammonia solution) = 50.50;

Nicosulfuron Sample. nicosulfuron known mass fraction  $w \geq 97.0\%$  (at 105 °C, 1h drying after use).

#### 4.4.3 Instruments

HPLC. a variable wavelength UV detector;

Chromatographic data processor or workstation;

Column. 250mm x 4.6mm (id) stainless steel column, SymmetryC18, 5 $\mu\text{m}$  filler contents (or equivalent effect column);

Filter. membrane pore size of about 0.45  $\mu\text{m}$ ;

Microsyringe. 50 $\mu\text{L}$ ;

Quantitative sampling tube. 5 $\mu\text{L}$ ;

Ultrasonic cleaning.