

ICS 65.100.10
CCS G 25



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

GB 28144-2011

Imidacloprid aqueous suspension concentrate

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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

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 582/SC (May2006) "imidacloprid suspension." this standard FAO Specification 582/SC (May2006) "imidacloprid suspension" The main technical differences and the following reasons.

--- This standard specifies Persistent foaming (after 1min) $\leq 25\text{mL}$, FAO specifications prescribed Persistent foaming (after 1min) $\leq 40\text{mL}$;

This standard specifies --- Fineness (75µm test sieve) was $\geq 98\%$, FAO Specifications predetermined fineness of $\geq 99.9\%$.

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.

Participated in the drafting of this standard. Jiangsu Suke Sheng Group Co., Ltd., Shaanxi marked positive CropScience Ltd., Shanghai Yue has the Chemical Limited, Nanjing Red Sun Co., Ltd., Zhejiang Hisun Chemical Co., Ltd., Jiangsu Changqing Agrochemical Co., Ltd., Qingdao Haley Seoul Pharmaceutical Co., Ltd.

1 Scope

This standard specifies the requirements imidacloprid suspension, test methods and marking, labeling, packaging, storage and warranty.

This standard applies to the processing of imidacloprid, additives and fillers obtained by suspension.

Note: The other name, structural formula and basic physicochemical parameters of imidacloprid 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.

Determination 1601 pH value pesticides GB/T 1604 pesticide regulations for acceptance of goods GB/T 1605-2001 sampling commercial pesticides GB 3796 pesticide packaging General GB/T 4472 Chemical density, relative density General 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 /GB/T 19137 Pesticide low temperature stability determination

3.1 Composition and appearance

This product shall be made compliant imidacloprid, processing aids and fillers, should be flowable, easy to measure the volume of a liquid suspension, kept Possible release during precipitation, but shake the handle, restitution should be, there should be no lumps.

3.2 Technical Specifications

Imidacloprid suspension shall comply with the requirements of Table 1.

Table 1 Imidacloprid suspension control project indicators

project

index

350g/L 480g/L 600g/L Imidacloprid mass fraction /% Mass concentration or a/(g/L) (20 °C)
 31.0 47.0 2.3-2.3 2.0-2.0 1.5-1.5 40.0 35017-17480 24-2460025-25 TABLE 1 (cont.) project
 index 350g/L 480g/L 600g/L pH range 6.0 to 9.0 Suspension rate /% ≥ 95 Wet sieve test
 (Test through 75 μ m sieve) /% ≥ 98 Persistent foaming (amount of foam after 1min)/mL $\leq$
 25 Pourability /% After pouring the residue ≤ 4 the residue was washed ≤ 0.5 Low
 temperature stability Qualified b B qualified thermal storage stability when a dispute occurs
 when a mass to mass fraction of arbitration.

Low temperature stability test, the thermal storage stability test was measured every three months, at least once during normal production b.

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 "liquid formulation sampling" approach. Determining Sample packages with a random number table method; final sample size not less than 600mL.

4.3 Identification Test

The present liquid chromatography --- identification test can be conducted simultaneously with the determination of the mass fraction of imidacloprid. Chromatography under the same operating conditions, the test A solution sample peak retention time of the standard solution of Imidacloprid retention time of the peaks, the relative difference should be less than 1.5%.

4.4.1 Method summary

Sample dissolved in mobile phase, methanol and water as mobile phase, used as a filler C18 stainless steel column and UV detector at a wavelength of at 260nm, of the sample imidacloprid RP-HPLC separation and determination, external standard.

4.4.2 Reagents and solutions

Methanol. HPLC grade;

Water. The new secondary steam distilled water;

Imidacloprid Sample. A known mass fraction $w \geq 99.0\%$.

4.4.3 Instruments

HPLC. a variable wavelength UV detector;

Chromatographic data processor or chromatography workstation;

Column. 250mm x 4.6mm (id) stainless steel column, C18, 5 μ m filler contents (or column with equivalent effect);

Filter. membrane pore size of about 0.45 μ m;

Microsyringe. 50 μ L;

Quantitative sampling tube. 5 μ L;

Ultrasonic cleaning.

4.4.4 HPLC operating conditions

Mobile phase. [Psi] (methanol. water) = 40:60, by membrane filtration, and degassing;

Flow rate. 0.8mL/min;

Column temperature. room temperature (temperature change should be less than 2 deg.] C);

Detection wavelength. 260nm;