

ICS 65.080

CCS G21



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

GB/T 17420-2020

Replacing GB/T 17420-1998

Foliar microelement fertilizer

微量元素叶面肥料

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1 Scope

GB/T 17420-2020 is the Chinese national standard on foliar microelement fertilizer, in the field of agriculture. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 19 November 2020 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 June 2021. Classification: ICS 65.080, CCS G21. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This Standard specifies the technical requirements, sampling, test methods, inspection rules, marking and quality certificate, packaging, transportation and storage of foliar microelement fertilizer. This Standard applies to foliar fertilizers based on microelements.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only the dated version applies to this document. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 4472, Determination of density and relative density for chemical products

GB/T 6679, General rules for sampling solid chemical products

GB/T 6680, General rules for sampling liquid chemical products

GB/T 8170, Rules of rounding off for numerical values & expression and judgment of limiting values

GB/T 8576, Determination of free water for compound fertilizers - Vacuum oven method

GB/T 8577, Determination of free water for compound fertilizers - Karl Fischer method

GB 18382, Fertilizer marking - Presentation and declaration

GB 38400, Limitation requirements of toxic and harmful substance in fertilizers

HG/T 2843, Chemical fertilizer products - Standard volumetric, standard, reagent and indicator solutions for chemical analysis

NY/T 1973, Water-soluble fertilizers - Determination of water insoluble matter content and pH Quickly mix the collected combined samples; reduce them to about 200 g (200 mL), and divide them into two clean, dry jars or polyethylene bottles with ground stoppers; paste the labels, which indicate name of the manufacturer, product name, batch number, sampling date, and name of the person who took the sample. One bottle is used for product inspection; one bottle is sealed and stored for two months for later use.

5 Test method

5.1 General provisions The preparation of reagents, water and solutions that are used in this Standard, when the specifications and preparation methods are not specified, shall be implemented in accordance with the provisions of HG/T 2843.

5.2 Sample preparation Perform according to the provisions of NY/T 1974.

5.3 Appearance inspection Visually inspect.

5.4.1.1 Preparation of sample solution of solid sample Weigh about

0.2 g ~ 3 g of the sample (accurate to 0.000 1

g) from the sample that is obtained in 5.2; place it in a 250 mL volumetric flask; add about 150 mL of water; place it in a shaker at an oscillation frequency of (180 ± 20) r/min to shake for 30 minutes. After taking it out, use water to dilute to the mark; mix well and filter dry; discard the first few milliliters of filtrate; wait for measurement.

5.4.1.2 Preparation of sample solution of liquid sample From the sample that is obtained in 5.2, weigh about

0.2 g ~ 3 g of the sample (accurate to 0.000 1 g); place it in a 250 mL volumetric flask; use water to fix volume; mix well and dry filter; discard the first few milliliters of filtrate; use for

later test.

5.4.2 Test procedures According to the provisions of NY/T 1974, the atomic absorption spectrophotometry is used as the arbitration method for the content of copper, required to be marked by other laws and regulations; the content of each microelement that is marked on the package shall be $\geq 0.2\%$ or 2 g/L.

7.2 The net content of each bag shall be marked with a single value, such as 100 g.

7.3 The product instructions shall be marked on the packaging container, including but not limited to the following: -- Applicable area, soil, crop, growth stage (or inapplicable area, soil, crop, growth stage); -- Usage and dosage; -- Compatibility with other materials, incompatible materials, special requirements for water quality, etc.; -- Warning instructions (in use, based on the hazardous characteristics of the product itself).

7.4 A two-dimensional code or barcode that is easy to identify can be used to mark part of the product information.

7.5 If fertilizer additives other than the requirements of this Standard are indicated on the product packaging, the name, function, content and corresponding testing method standards of the additives shall be indicated on the packaging container.

7.6 Each batch of products that pass the delivery inspection shall be accompanied by a quality certificate, which includes: product name, manufacturer name, production date (or batch number), microelement content, water insoluble matter, pH value, moisture, number of this Standard, and contents that shall be marked according to laws and regulations.

7.7 The rest shall be implemented in accordance with the provisions of GB 18382.