



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

GB 1886.246-2016

Replacing GB 25578-2010

**National Food Safety Standard -- Food Additives -- Talcum
Powder**

食品安全国家标准 食品添加剂 滑石粉

(English Translation)

Issued on: August 31, 2016

Implemented on: January 1, 2017

Issued by: National Health and Family Planning Commission

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Foreword

This standard replaces GB 25578-2010 "national food safety standards for food additives talcum powder." this standard compared with GB 25578-2010, the main changes are as follows.

- Revised test methods for arsenic;
- Increased the lead testing methods;
- Modify the index name amphibole asbestos and test methods;
- Remove the heavy metal items.

National Food Safety Standard Food additives Talc

1 Scope

This standard applies to talc prepared by pulverizing food additive talc.

2.1 Sensory requirements

Sensory requirements shall comply with the requirements of Table 1.

Table 1 Sensory requirements

Project requires test methods Color White State powder Take appropriate 50mL sample is placed in a beaker, observe the color in natural light and state

2.2 Physical indicators

Physical and chemical indicators should be consistent with the provisions of Table 2.

Table 2. Physical and chemical indicators

Item Index Test Method Silicon dioxide (SiO₂), w /% ≥ 58.0 Appendix A A.4 Magnesium oxide (MgO), w /% ≥ 30.0 A.5 Appendix A Whiteness ≥ 85.0 A.6 in Appendix A in Acid

(of SO₄), w /% ≤ 1.5 Appendix A A.7 Loss on ignition, w /% ≤ 6.0 Appendix A A.8 Loss on drying, w /% ≤ 0.5 A.9 in Appendix A Water-soluble material, w /% ≤ 0.1 Appendix A A.10 Water-soluble iron by test A.11 in Appendix A by pH test A.12 in Appendix A Fineness (45μm test sieve through rate), w /% ≥ 98.0 Appendix A A.13 Arsenic (As)/(mg/kg) ≤ 3.0 Appendix A A.14 Lead (Pb)/(mg/kg) ≤ 5.0 Appendix A second method A.15 or GB 5009.75 Asbestos can not be detected in Appendix A A.16 Appendix A Testing method A.1 Warning Reagents The test methods used in corrosive, such as careful operator shall immediately wash with water splashed on the skin, Yan in severe cases, seek immediate medical attention. When using flammable, do not use open flame heating.

A.2 General Provisions this standard reagents and water, did not indicate when the other requirements, refer to the three water analytical reagent and GB/T 6682 stipulated.

Impurities in the test standard solution, preparations and products, did not indicate when the other requirements, according to GB/T 602, GB/T 603 system requirements Preparation. The solution in a solvent which does not indicate by when formulated, refers to an aqueous solution.

A.3 Identification Test A.3.1 X-ray diffractometer X-ray diffraction samples were tested in spacing is 0.934nm, 0.466nm and 0.312nm at diffraction peaks.

A.3.2 Infrared spectroscopy method Infrared absorption spectrometer samples were tested have major absorption peak at 1015cm⁻¹ and at 450cm⁻¹ place.

A.3.3 chemical

A.3.3.1 Reagents and materials A.3.3.1.1 anhydrous sodium carbonate.

A.3.3.1.2 anhydrous potassium carbonate.

A.3.3.1.3 hydrochloric acid.

A.3.3.1.4 ammonia solution. 23.

A.3.3.1.5 ammonium chloride solution. 100g/L.

A.3.3.1.6 ammonium carbonate solution. 100g/L.

A.3.3.1.7 disodium hydrogenphosphate (Na₂HPO₃ · 12H₂O) solution. 160g/L.

A.3.3.1.8 ammonium chloride solution. 100g/L.

A.3.3.2 analysis step Weigh about 0.2g sample was placed in a platinum crucible, add anhydrous sodium carbonate 0.9g and 1.3g of anhydrous potassium carbonate, and mix. Added to the furnace Heat to completely melt, cooled, boiling water with about 5mL melt is transferred to a beaker, hydrochloric acid was added dropwise to no bubble. Plus 10mL hydrochloric acid, is set in a water bath and evaporated to dryness. After cooling, 20mL of water, heated to boiling, and filtered. Residue gel-like substance, the filtrate was added ammonium chloride Solution of ammonium carbonate solution and no precipitation

occurred during addition of disodium hydrogen phosphate solution, it should produce a white precipitate. The precipitate was isolated, ammonia water solution, precipitated it should not be dissolved.

A.4 silicon dioxide (SiO₂) Determination Press gelatin GB/T 15343-2012 in 5.2.1 coagulation gravimetric method - filtrate molybdenum blue method (A method) were measured.

A.5 magnesia (MgO) Determination According to GB/T 15343-2012 in 5.6.1 predetermined separation R₂O₃-EDTA complexometric titration method (A method) were measured.

A.6 Determination of whiteness A.6.1 Instruments and Equipment A.6.1.1 whiteness meter.

A.6.1.2 Working whiteboard. comply with GB/T 5950-2008 in Chapter 6.

A.6.2 Analysis step

A certain amount of sample into the sample vessel pressure, pressed into a smooth surface, no texture, no defect, no stain test model. Each batch of products to be pressed 3 test system model.

By the use of the instrument described preheating stable instrument, zero, working with whiteboard tuned instrument. The sample plate is placed on the instrument measurement sample blue Light whiteness.

The results parallel arithmetic mean of the measurement results shall prevail. Twice under the same condition of independent determination results obtained absolute difference not more than 0.5.

A.7 Determination of acid-soluble substance (as SO₄ basis) According to GB/T 15343-2012 5.13 in the filtration method (B method) were measured.

A.8 Determination of loss on ignition According to GB/T 15343-2012 of 5.1 was measured ignition temperature of 1000 °C.

A.9 Determination of loss on drying According to GB/T 15344-2012 4.1 Oven method (A method) were measured.

Determination of water-soluble substance A.10 A.10.1 Analysis steps it weighs about 10g sample, accurate to 0.01g, placed in 150mL conical flask, add 50mL water, stirred, and heated to boiling 30min, not Off stirring, ready to add the evaporated water, the volume of the solution was maintained at about 30mL. Cooling to room temperature, transferred to a 50mL volumetric flask Diluted with water to the mark. The following press GB/T 15343-2012 5.14 in the filtration method (B method) from the beginning of operation 5.14.4.2.2.

While retaining the filtrate for pH measurement.

A.10.2 Calculation Results with GB/T 15343-2012 in 5.14.5.2.

The results parallel arithmetic mean of the measurement results shall prevail. Twice under the same condition of independent determination results obtained absolute difference not more than 0.015%.

A.11 Determination of water-soluble iron According to GB/T 15343-2012 5.15 measured in the sample solution is not immediately appear blue through the test.

A.12 Determination of pH A.12.1 reagents and materials A.12.1.1 red litmus paper.

A.12.1.2 blue litmus paper.

A.12.2 Analysis steps A.10.1 reserved filtrate case of litmus paper red and blue litmus paper is not discolored by experiment.

Determination A.13 fineness (45 μ m test sieve through rate) of According to GB/T 15344-2012 4.6 specified in the wet sieve method (A method) were measured.

A.14 Determination of Arsenic (As) of Weigh 10.00g $\pm$ 0.01g sample was placed in 150mL beaker, add 50mL hydrochloric acid solution (122), shake the sample well Dispersion, surface covered dish, placed on a boiling water bath for heating 30min (replenish water to prevent dry out). Remove coolish, at medium speed filter paper 100mL volumetric flask, and the beaker was rinsed with 30mL water insolubles were transferred, filter paper and then washed with 15mL of hot water insolubles. filtrate Cooled to room temperature, diluted with water to the mark. This solution is a sample solution A, the solution was reserved for arsenic levels, and heavy metals including lead content Determination of the amount.

Pipette with a pipette 5mL above solution, placed in 25mL volumetric flask, sulfuric acid solution was added 12.5mL (1 9), 2.5mL thiourea Solution (50g/L), diluted with water to the mark. At the same reagent blank.

The following press GB 5009.76 relevant articles were measured.

A.15 Lead (Pb) Determination A.15.1 reagents and materials Lead standard solution. 1mL solution containing lead (Pb) 0.10mg.

A.15.2 instruments and equipment Atomic absorption spectrophotometer. with lead hollow cathode lamp.

A.15.3 Analysis steps A.15.3.1 draw the curve Pipette 0.00mL respectively, 1.00mL, 2.00mL, 3.00mL lead standard solution, placed in four 100mL flask, diluted with water to the mark. Acetylene flame measured absorbance - on the atomic absorption spectrophotometer, at 283.3nm at using air. From each mark Absorbance of standard solution of subtracting the absorbance of the blank solution, the quality of the lead as the horizontal, the vertical axis plotted absorbance curve.

A.15.3.2 Determination Acetylene flame measured sample solution A (A.14) absorbance - on the atomic absorption spectrophotometer, at 283.3nm at using air.