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Study on preparation of Nasouyuan syrup

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Abstract

Definition of syrup: concentrated aqueous solution of sucrose containing the extract. A, syrup containing sugar content should not be less than 45%; B sugar in syrup is mainly used for flavoring. Microbial limit test: unless otherwise specified, syrups shall be subject to microbial limit tests for non-sterile products, i.e., microbial count and control bacteria tests, and microbial limit tests for non-sterile drugs. Analysis on the causes of precipitation in chinese medicinal syrup:(1)The purification treatment of the liquid medicine is not enough, and the polymer impurities contained therein "age", aggregate and separate out colloidal particles during storage. (2) the syrup storage temperature is lower than the preparation temperature, reduce the solubility of some components and precipitation.(3)The PH of syrup changed during storage to reduce the stability of some components and separate out.

Keywords

Nasouyuan syrup; Single-dose filled syrups; Multiple dose filled syrups.

1. Introduction

Syrups shall contain not less than 45%(g/ml) of sucrose, unless otherwise specified. Generally extracting the medicinal materials to obtain concentrated solution, or dissolving the medicinal materials in boiling water, and adding single syrup[1]; If sucrose is directly added for preparation, boiling is required, followed by filtration, and an appropriate amount of newly-boiled water is added onto the filter to make it into the prescribed amount. If sorbic acid or benzoic acid and other preservatives are to be added to the syrup, the amount is generally 0.2% and the amount of p-hydroxybenzoate is generally 0.05%. If you need to add other additives, the varieties and dosage should be in accordance with the relevant provisions of the state, should not affect the stability of the product, and pay attention to avoid interference to the inspection. Appropriate amounts of ethanol, glycerol or other polyols may be added as necessary[2]. Syrup containing medicinal extract with small amount of easily-dispersed precipitate allowed.

Definition of syrup: concentrated aqueous solution of sucrose containing the extract. A, syrup containing sugar content should not be less than 45%; B sugar in syrup is mainly used for flavoring[3-4]. Classification: A Single syrup is a nearly saturated aqueous solution of sucrose with a concentration of 85%(g/ml) or 64.72%(g/g) in Appendix 1, which can be used to prepare medicinal syrup, correct odor, and serve as a binder for suspending agents and tablets and pills of insoluble components. 2. For taste correction, 20% is usually used, while for children it is 20-40% B. The medicinal syrup is a concentrated sucrose aqueous solution containing medicinal materials or medicinal extract, and has corresponding therapeutic effect. C, aromatic syrup is containing aromatic substances or juice concentrated sucrose aqueous solution, mainly used as a flavoring agent, such as orange peel syrup. And 3, a preparation method: that general proces flows are as follow: leaching, purifying, concentrating, prepare, filtering, subpackaging and obtaining a finished product a, and the hot dissolving method is applicable to the preparation

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of single syrup, syrup without volatile components, medicinal syrup with relatively stable heating and colored syrup. Has that advantage that sucrose is easy to dissolve, syrup is easy to filter, microorganism can be kil, and the syrup is easy to store; Disadvantages: heating time should not be too long, the temperature should not exceed 100 degrees. B. Cold dissolution method: It is suitable for the preparation of single syrup and for the preparation of syrup for thermally unstable or volatile drugs. Has the advantages that the prepared syrup has lighter color or is colorless, and has less converted sugar. Disadvantages, dissolution time is longer, the production process is vulnerable to microbial pollution. C. Mixed method[5-6].

2. Materials and production methods

In this experiment, Main instruments and equipment: electric furnace, stainless steel pot, funnel, filter cloth, beaker.

Materials: Fructus Xanthii, Flos Magnoliae, Flos Chrysanthemi Indici, Flos Lonicerae, Radix Rubiae, sucrose, and sorbic acid.

2.1. The preparation of syrup

Syrup was prepared according to the following prescription: 150g Fructus Xanthii, 30g Flos Magnoliae, 10g Flos Chrysanthemi Indici, 10g Flos Lonicerae, 10g Radix Rubiae, 60g sucrose, and 0.2g sorbic acid.

Single-dose filled syrups: Five test articles were taken, opened carefully, the contents were respectively poured into a standardized and dried dosing cylinder, and poured as far as possible. The syrups were examined at room temperature, and the loading amount of each article was read out (accurate to 1% of the loading amount).

2.2. Syrup routine quality inspection

Quality requirements for syrups: It should be clarified that there should be no mildew, rancidity, generation of gas or other deterioration during storage, and a small amount of easily dispersed precipitate is allowed. In addition to the inspection items specified under each variety (the relative density and pH value should be generally checked), the loading amount and microbial limit should be checked.

Multiple-dose filled syrups (for indicated capacity by volume): operate according to the minimum capacity check method. Take five test articles (three for those with the marked loading capacity of more than 50ml), pay attention to avoid loss when opening, transfer the contents to a pre-standardized dry dosing cylinder (the size of the measuring tool shall be such that the volume to be measured accounts for at least 40% of the rated volume). After the viscous liquid is poured out, the container shall be inverted for 15 minutes, to make it as clean as possible. 2 mA and below were evacuated using a pre-normalized, dry-volume human syringe. The content of each container is read and the average content is calculated.

(1) The graduated cylinder used shall be clean, dry and qualified through regular calibration; The maximum capacity shall be the same as the indicated capacity of the test article or not more than 2 times the indicated capacity.

(2) the test content into the scale cylinder, the container should be inverted for 15 minutes, make as far as possible, and then read out the content of each content.

3. Results and Analysis

3.1. Single-dose filled syrups

if the loading amount of each syrup is not more than 1 bottle less than the marked loading amount and not less than 95% of the marked loading amount as compared with the marked

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loading amount, it shall be determined to be in compliance with the provisions; Otherwise, it is deemed as non-compliance.

3.2. Multiple dose filled syrups

the content of each container and the average content, according to the provisions of the minimum loading inspection method (capacity method), the content of each container shall not be less than the minimum allowable loading; And the average loading amount is not less than the marked loading amount, is judged to be in accordance with the provisions.

if there is a container loading does not conform to the provisions, the other five (more than 50ml take three) second interview. The second interview results all conform to the provisions, can still be sentenced to comply with the provisions.

The average loading amount and the loading amount of each container (calculated as the percentage according to the marked loading amount) are judged by taking the three significant figures.

4. Conclusion

Record the temperature, the number of test article and label, each container content of the measured quantity, etc.The average charge is obtained by dividing the sum of the charges of each container by 5 (or 3).Determine the content and average content of each container. Calculate the minimum allowable charge.

Microbial limit test: Unless otherwise specified, syrups shall be subject to microbial limit tests for non-sterile products, i.e., microbial count and control bacteria tests, and microbial limit tests for non-sterile drugs.

Analysis on the causes of precipitation in chinese medicinal syrup:

(1)The purification treatment of the liquid medicine is not enough, and the polymer impurities contained therein "age", aggregate and separate out colloidal particles during storage.

(2) the syrup storage temperature is lower than the preparation temperature, reduce the solubility of some components and precipitation.

(3)The PH of syrup changed during storage to reduce the stability of some components and separate out.

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