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Quality requirements for inulin

菊粉质量要求

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Table of Contents

- 1 Scope
- 2 Normative references
- 3 Terms and Definitions
- 4 Molecular formula, structural formula

Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part

1. Structure and Drafting Rules of Standardization Documents" drafted. Please note that some content of this document may be patented. The issuing agency of this document assumes no responsibility for identifying patents. This document is proposed and managed by the National Standardization Technical Committee of Food Industry (SAC/TC64). This document is drafted by: Fengning Ping An Hi-Tech Industrial Co., Ltd., Fanmi Neng Special Sugar Co., Ltd., Quantum Hi-Tech (China) Biological Co., Ltd. Co., Ltd., Wuhan Ying New Forest Biotechnology Co., Ltd., Baiyin Xirui Biological Engineering Co., Ltd., Chongqing Widemus Biological Industry Co., Ltd. Company, Unicon (Beijing) Pharmaceutical Technology Service Co., Ltd., Tianjin Binhai Jepsen Specialty Chemical Co., Ltd., China Food Fermentation Industry Research Institute Co., Ltd., Perfect (China) Co., Ltd., Tiens Group Co., Ltd., Shijiazhuang Junlebao Dairy Co., Ltd., Beijing Sanyuan Food Co., Ltd. Co., Ltd., Shanghai Tianxiang Quality Technology Service Co., Ltd., Hebei Food Inspection Research Institute. The main drafters of this document. Liu Jie, Qian Xiaoguo, Yang Yun, Wei Yuanan, Zou Aibiao, Li Xiangdong, Yin Hong, Wang Xiangyang, Liu Hui, Cao Mengsi, Zhang Lixin, Li Yueqi, Wang Shijie, Chen Lijun, Lin Song, Zhang Yan, Liu Ming, Chen Xiaoqiang, Huang Zhenhua, Wu Jianfeng, Lei Wenjun, Li Siyou, Bu Huan, Li Xingzhi, Han Meina, Zhang Linggai, Wang Haotong, Liu Hongliu, Gao Yecheng, Liang Shuming. Inulin quality requirements

1 Scope

China's national quality requirements for inulin, including the terms and definitions. Inulin is a fructan - a chain of fructose units - stored by chicory, Jerusalem artichoke and agave, and it is used as a food ingredient for two properties that follow from one fact: human digestive enzymes cannot break it down. So it passes intact to the colon, where the gut bacteria ferment it, which makes it a prebiotic and the most studied one; and it contributes no digestible carbohydrate, so it adds bulk and a fat-like mouthfeel to reduced-sugar and

reduced-fat foods without adding calories. The quality requirements have to address chain length, because short-chain inulin is sweet and highly soluble while long-chain is not, and they behave completely differently in a formulation; and purity, because the extraction leaves free sugars behind and a product sold as inulin that is a quarter glucose defeats both purposes.

This document specifies the quality requirements for inulin, including terms and definitions, requirements, test methods, inspection rules and signs, packaging, transportation, storage and so on. This document applies to the production, quality inspection and sale of inulin.

2 Normative references

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, dated citations documents, only the version corresponding to that date applies to this document; for undated references, the latest edition (including all amendments) applies to this document.

GB/T 191 Graphical signs of packaging, storage and transportation Preparation of

GB/T 601 Standard Titration Solutions for Chemical Reagents

GB/T 602 Preparation of standard solutions for the determination of impurities in chemical reagents Preparation of preparations and products used in

GB/T 603 chemical reagent test methods

GB 5009.3-2016 National Food Safety Standard for Determination of Moisture in Food

GB 5009.4 National Food Safety Standard Determination of Ash in Food

GB/T 6682-2008 Specifications and test methods for water used in analytical laboratories

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 inulin Inulin Using chicory or Jerusalem artichoke (alias artichoke, devil ginger) as raw materials, it is obtained through screening, cleaning, crushing, extraction, refining and other processes. Linked by beta-glycosidic bonds, fructans with a degree of polymerization of 2 to 60.

Note. a kind of dietary fiber, can be used as food or food raw materials.

3.2 The sum of the number of fructosyl and glucosyl groups in the inulin molecular chain.

4 Molecular formula, structural formula

4.1 Molecular formula. $C_6H_{11}O_5(C_6H_{10}O_5)_nOH$.

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