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Technical Standard of International Seabuckthorn Association

团 体 标 准

T/ISAS 002—2021

沙棘原果汁 (Seabuckthorn juice)

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前言 Preface

本标准按照 GB/T1.1—2020《标准化工作导则第1部分：标准化文件结构和起草规则》的规定起草。在中华人民共和国水利行业标准 SL353-2006《沙棘原果汁标准》的基础上，修订为国际沙棘协会的团体标准。

本标准由国际沙棘协会归口。

本标准起草单位：水利部沙棘开发管理中心（水利部水土保持植物开发管理中心）、吕梁野山坡食品有限责任公司、河北神兴沙棘研究院、高原圣果沙棘制品有限公司、北京宝得瑞健康产业有限公司、内蒙古宇航人高技术产业有限责任公司。

本标准主要起草人：土小宁、张滨、高岩、殷丽强、卢顺光、赵东晓、温秀凤、孙晶辉、陈超、林田苗、刘智明、刘玉成、崔焱、张存存、马素清。

This standard is drafted in accordance with GB/T 1.1-2020 Standardization Guidelines part 1: Standardization Document Structure and drafting Rules. On the basis of the water conservancy industry standard OF the People's Republic of China SL353-2006 standard for raw juice of sea buckthorn, it was revised as the group standard of international sea buckthorn Association.

The International Sea buckthorn Association is responsible for this standard.

This standard drafting unit: Management Center for Seabuckthorn Development, Ministry of Water Resources (Management Center for Soil and Water Conservation Plant Development, Ministry of Water Resources), Luliang Yeshanpo Food Co., Ltd., Hebei Shengxing Seabuckthorn Institute, Gaoyuanshengguo Seabuckthorn Products Co., Ltd., Beijing Powdery Health Industry Co., Ltd., Inner Mongolia Yuhangren High-tech. Industry Co., Ltd.

Main drafters of this standard: Tu Xiaoning, Zhang Bin, Gao Yan, Yin Liqiang, Lu Shunguang, Zhao Dongxiao, Wen Xiufeng, Sun Jinghui, Chen Chao, Lin Tianmiao, Liu Zhiming, Liu Yucheng, Cui Yan, Zhang Cuncun, Ma Suqing.

沙棘原果汁

Seabuckthorn juice

1 范围

本标准规定了沙棘原果汁的术语和定义、分类、要求、检验方法、检验规则、包装、标识、贮存和运输的要求。

本标准适用于以沙棘果为原料加工而成的沙棘原果汁。

1 Scope

This standard specifies the terms and definitions, classification, requirements, inspection methods, inspection rules, packaging, labeling, storage and transportation requirements of seabuckthorn raw juice.

This standard applies to the raw juice of seabuckthorn processed from seabuckthorn fruit.

2 规范性引用文件

下列文件对于本文件的应用是必不可少的。凡是注日期的引用文件，仅注日期的版本适用于本文件。凡是不注日期的引用文件，其最新版本（包括所有的修改单）适用于本标准。

- GB 2761 食品安全国家标准 食品中真菌毒素的限量
- GB 2762 食品安全国家标准 食品中污染物限量
- GB 2762 食品安全国家标准 食品中农药残留最大限量
- GB 4789.1 食品安全国家标准 食品微生物学检验 总则
- GB 4789.2 食品安全国家标准 食品微生物学检验 菌落总数测定
- GB 4789.3 食品安全国家标准 食品微生物学检验 大肠菌群计数
- GB 4789.4 食品安全国家标准 食品微生物学检验 沙门氏菌检验
- GB 4789.10 食品安全国家标准 食品微生物学检验 金黄色葡萄球菌检验
- GB 4789.15 食品安全国家标准 食品微生物学检验 霉菌和酵母计数
- GB 4789.21 食品安全国家标准 食品卫生微生物学检验 冷冻饮品、饮料检验
- GB 4789.26 食品安全国家标准 食品微生物学检验 商业无菌检验
- GB 5009.12 食品安全国家标准 食品中铅的测定
- GB 5009.15 食品安全国家标准 食品中镉的测定
- GB 5749 生活饮用水卫生标准
- GB 7718 食品安全国家标准 预包装食品标签通则
- GB/T 12143 饮料通用分析方法

GB 12456 食品安全国家标准 食品中总酸的测定

GB 12456 食品安全国家标准 饮料生产卫生规范

GB 14881 食品安全国家标准 食品生产通用卫生规范

GB 12695 食品安全国家标准 饮料生产卫生规范

GB 28050 食品安全国家标准预包装食品营养标签通则

GB 29921 食品中致病菌限量

JJF 1070 定量包装商品净含量计量检验规则

国家质量监督检验检疫总局第 75 号令（2005）定量包装商品计量监督管理办法

2 Cited normative reference documents

The following documents are essential for the application of this document. For dated references, dated versions only apply to this document. For undated references, the latest version of the document (including all amendments) applies to this international standard.

GB 2761 National Standard for Food Safety: Limits of mycotoxins in food

GB 2762 National Standard for Food Safety: Limits of contaminants in food

GB 2762 National Standard for Food Safety: Maximum limit of pesticide residues in food

GB 4789.1 National Standard for food safety: General provisions for food microbiological testing

GB 4789.2 National standard for food safety: Determination of total number of bacteria in food microbiology

GB 4789.3 National standard for food safety: Food microbiology test coliform count

GB 4789.4 National Standard for Food safety: Food microbiological test Salmonella test

GB 4789.10 National Food safety standard: Food microbiology test Staphylococcus aureus test

GB 4789.15 National standard for food safety food: Microbiology test of mould and yeast counts

GB 4789.21 National standard for food safety food: Hygiene microbiological inspection frozen drinks and beverages inspection

GB 4789.26 National standard for food safety food: Microbiology test commercial sterility test

GB 5009.12 National Standard for Food Safety: Determination of lead in food

GB 5009.15 National standard for Food Safety: Determination of cadmium in food

GB 5749 Hygienic standard for drinking water

GB 7718 National Standard for Food Safety: General rules for label of prepackaged food

GB/T 12143 General analysis method for beverages

GB 12456 National standard for Food Safety: Determination of total acid in food

GB 12456 National standard for food safety: Hygienic code for beverage production

GB 14881 National standard for food safety: General hygiene code for food production

GB 12695 National standard for food safety: Hygienic code for beverage production

GB 28050 National Standard for Food safety: General rules for nutrition labeling of prepackaged food

GB 29921 Limits of pathogenic bacteria in food

JJF 1070 Rules for metrological inspection of net content of Quantified Packaged Goods

General Administration of Quality Supervision, Inspection and Quarantine Order No.75 (2005) :Measures for metrological supervision and administration of Quantitative Packaged Commodities

3 术语和定义

3 Terms and definitions

沙棘原果汁 (Seabuckthorn juice)

以中国沙棘 (*Hippophaerhamnoidesssp.sinensis*) 或大果沙棘 (商品名) 的沙棘纯果或带枝沙棘果为原料加工而成、未经稀释、浓缩及调配的沙棘汁。

Seabuckthorn juice is made from pure berries or branched-berries of Chinese Shaji (*Hippophae rhamnoides sp.sinensis*) or large berry Shaji without dilution, concentration and blending.

4 分类

4 classification

按品种分为：中国沙棘原果汁和大果沙棘原果汁

According to species: Chinese Shaji seabuckthorn raw juice and large berry seabuckthorn raw juice

按用途分为：可直接饮用的沙棘原果汁和非直接饮用的沙棘原果汁。

According to the use, it can be divided into: direct drinking raw sea buckthorn juice and indirect drinking raw sea buckthorn juice.

5 要求

5 Requirements

5.1 原料要求

5.1 Raw Material Requirements

应选用新鲜良好，成熟适度，无病虫害及霉烂的沙棘果实（纯果或带枝沙棘果）。

Seabuckthorn berries (pure fruit or fruit with branches) should be selected with good freshness and moderate ripeness, free from diseases, pests and mildew.

5.2 （加工企业）卫生要求

5.2 (Processing enterprise) hygiene requirements

应符合 GB 12695 和 GB 14881 的规定。沙棘果生产加工过程中的清洗用水应符合 GB 5749 的要求。

It should comply with GB 12695 and GB 14881. The cleaning water used in the production and processing of seabuckthorn fruit should meet the requirements of GB 5749.

5.3 感官要求

5.3 Sensory Requirements

感官要求应符合表 1 的规定。

Sensory requirements shall be in accordance with table 1.

表1 感官要求

Table 1 Sensory requirements

项目Project	要求Requirements	
	中国沙棘 Chinese Shaji	大果沙棘 large berry seabuckthorn
色泽Color	橙黄色至橙红色 Orange yellow to orange red	橙黄色至橙红色 orange to orange red
香气及滋味Aroma and taste	具有沙棘果特有的气味及滋味，无 异味with the unique smell and taste of sea buckthorn fruit, no	具有沙棘果特有的气味及滋味，有涩 味，无异味

	peculiar smell with the unique smell	taste of sea buckthorn fruit, with a stringency, no peculiar smell
组织形态 The tissue morphology	允许有少量果肉沉淀和果油漂浮 allows for a small amount of pulp precipitation and oil floating	
杂质 Impurities	无外来可见杂质 No visible foreign impurities	

5.4 理化指标

5.4 Physical and chemical specifications

理化指标应符合表 2 规定。

Physical and chemical indexes should conform to table 2.

表2 理化指标

Table 2 Physical and chemical indexes

项 目 Items	指标 Index	
	中国沙棘 Chinese Shaji	大果沙棘 large fruiberri Shaji
可溶性固形物/折光计法,20 C (%) Soluble solids/refractometer method,20 C (%)	10.0	7.0
总酸 (以苹果酸计) / (%) Total acid (malic acid)/(%)	2.0	1.5
维生素C/ (mg/100g) Vitamin C/ (mg/100g)	200	100

5.5 污染物限量和真菌毒素限量

5.5 Contaminant limits and mycotoxin limits

5.5.1 污染物限量应符合 GB 2762 的规定。

5.5.1 Pollutant limits shall be in accordance with GB 2762.

5.5.2 真菌毒素限量应符合 GB 2761 的规定。

5.5.2 Mycotoxin limits shall be in accordance with GB 2761.

表3 污染物限量

Table 3 Pollutant limits

项 目 Item	分 类 classification	指 标 index
	直接饮用 direct drinking	0.05

铅（以 Pb 计）/(mg/L) ≤Lead (Pb) /(mg/L) ≤	非直接饮用Indirect consumption	0.10
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5.6 农药残留限量

5.6 Pesticide residue limits

农药残留限量应符合 GB 2763 的规定。

Pesticide residue limits shall be in accordance with GB 2763.

5.7 微生物限量

5.7 Microbial limits

5.7.1 致病菌限量应符合GB 29921 的规定。

5.7.1 The limits of pathogenic bacteria shall conform to the provisions of GB 29921.

5.7.2 经商业无菌生产的产品应符合商业无菌的要求，按 GB 4789.26 规定的方法检验。

5.7.2 Commercially sterile products shall meet the requirements of commercial sterility and be tested according to the method specified in GB 4789.26.

5.7.3 非经商业无菌生产的产品，其微生物限量还应符合表 4 的规定。

5.7.3 Microbial limits of products not produced by commercial asepsis shall also comply with the provisions of Table 4.

表4 微生物限量

Table 4 Microbial limits

项目 Items	指标 Index			
	采样方案 及限量The sampling scheme ^a and limit			
	n	c	m	M
菌落总数/（CFU/mL）≤ Total number of colonies/(CFU/mL) ≤	5	2	100	1000
大肠菌群/（CFU/mL）≤ Coliform/(CFU/mL) ≤	5	2	3	10
酵母/（CFU/mL）≤ Yeast/(CFU/mL) ≤	10			
霉菌/（CFU/mL）≤ Mold/(CFU/mL) ≤	10			
致病菌（沙门氏菌 CFU /25mL、金黄色葡萄球菌 CFU /mL） Pathogenic bacteria (Salmonella CFU /25mL, Staphylococcus aureus CFU /mL)	不得检出May not be detected			

5.8 净含量允差

5.8 Net content allowance

净含量允差应符合国家质量监督检验检疫总局第 75 号令（2005）定量包装商品计量监督管理办法的规定。

The net content tolerance should be in line with the State General Administration of Quality Supervision, Inspection and Quarantine Order No. 75 (2005) quantitative packaging commodity metrology supervision. Supervise the provisions of management measures.

5.9 加工工艺要求

5.9 Processing technology requirements

沙棘原果汁产品生产过程中不得添加任何食品添加剂和营养强化剂。

No food additive or nutrient fortifier should be added in the production of seabuckthorn raw juice.

6 检验方法

6 Inspection methods

6.1 感官要求

6.1 Sensory requirements

6.1.1 色泽、组织形态及杂质

6.1.1 Color, morphology and impurities

取混合均匀的被测样品 50mL 于无色透明的容器中，置于明亮处，迎光观察其色泽、组织形态及杂质。

50ml of the tested sample was evenly mixed in a colorless and transparent container and placed in a bright place to observe its color, tissue morphology and impurities under the light.

6.1.2 香气和滋味

6.1.2 Aroma and taste

取混合均匀的被测样品 50mL 于洁净的容器中，立即用嗅觉鉴别其气味，用味觉品尝其滋味，检查有无异味，每次品尝样品前，须用清水漱口。

Take 50ml evenly mixed samples to be tested in a clean container, immediately identify the smell with the sense of smell, taste the taste with the taste of taste, check whether there is any peculiar smell, before each sample taste, rinse mouth with water.

6.2 理化指标

6.2 Physical and chemical specifications

6.2.1 可溶性固形物

6.2.1 Soluble substances

按 GB/T 12143 规定的方法测定。

According to the method specified in GB/T 12143.

6.2.2 总酸

6.2.2 Total acidity

按 GB 12456 规定的方法测定。

It shall be determined according to the method specified in GB 12456.

6.2.3 维生素C

6.2.3 Vitamin C

按 GB/T 12143 规定的方法测定。

According to the method specified in GB/T 12143.

6.3 铅

6.3 Lead

按 GB 5009.12 规定的方法测定。

According to the method specified in GB 5009.12.

6.4 微生物指标

6.4 Microbial indicators

6.4.1 菌落总数

6.4.1 Total number of colonies

按 GB 4789.2 规定的方法检验。

Test according to the method specified in GB 4789.2.

6.4.2 大肠菌群

6.4.2 Coliforms

按 GB 4789.3 规定的方法检验。

Test according to the method specified in GB 4789.3.

6.4.3 霉菌和酵母菌

6.4.3 Molds and yeasts

按 GB 4789.15 规定的方法检验。

Test according to the method specified in GB 4789.15.

6.4.4 致病菌（沙门氏菌、金黄色葡萄球菌）

6.4.4 Pathogenic bacteria (Salmonella, Staphylococcus aureus)

6.4.4.1 沙门氏菌

6.4.4.1 Salmonella

按 GB 4789.4 规定的方法检验。

Test according to the method specified in GB 4789.4.

6.4.4.2 金黄色葡萄球菌

6.4.4.2 Staphylococcus aureus

按 GB 4789.10 规定的方法检验。

Test according to the method specified in GB 4789.10.

6.5 净含量

6.5 Net content

按 JJF 1070 规定的重量法检验。

Inspection by gravimetric method as specified in JJF 1070.

7 检验规则

7 Inspection Rules

7.1 组批原则

7.1 Group batch rules

由同一批原料、同一班次、同一条生产线生产的包装完好的同一品种、同一规格产品为一组批。

The products of the same variety and specification with intact packaging produced by the same batch of raw materials, the same shift and the same production line shall be a group of batches.

7.2 抽样方法和数量

7.2 Sampling method and quantity

采用无菌包装容器包装方式的产品，每批取样 3 次，在灌装过程中，分别在第一桶灌装完后、中间桶灌装完后、最后一桶灌装完后取样，每次取样最少两个小无菌袋（或对于非商业无菌灌装，可用样品瓶），每袋不少于 1L（对于用样品瓶取样，每次不少于 2L）。对每次所取样品按出厂检验项目检验并留样。

其它包装方式的产品，随机从每一批产品中抽取 2‰，但不得少于 3 件。

Using aseptic packaging container, packaging products every batch of sampling 3 times, in the process of filling, respectively in the first barrel filling after, after the middle barrel filling, after the last barrel filling sampling, each sampling at least two small sterile bag (or for non-commercial aseptic filling, available sample bottle), each bag of not less than 1 l (with sample bottles of sampling, Not less than 2L each time). Check and retain samples according to factory inspection items.

For products of other packing methods, 2‰ shall be randomly selected from each batch, but not less than 3 pieces.

7.3 出厂检验

7.3 Delivery inspection

每批产品出厂前，生产厂质检部门都应对本批产品进行出厂检验。出厂检验的项目包括感官指标、可溶性固形物、总酸、维生素 C、菌落总数、霉菌、酵母菌、大肠菌群、净含量、标签和包装，经检验合格并附合格证的产品方可出厂。

Before each batch of products leave the factory, the quality inspection department of the factory shall carry out the factory inspection. The items for ex-factory inspection include sensory index, soluble solids, total acid, vitamin C, total number of colonies, mold, yeast, coliform, net content, label and package, and the products can leave the factory after passing the inspection and with a certificate.

7.4 型式检验

7.4 Type inspection

型式检验项目应包括本标准规定的全部指标，正常生产时，每年进行一次检验。有下列情况之一者，也应进行型式检验。

- a. 原料、设备或工艺有较大改变，有可能影响产品质量时；
- b. 产品长期停产，恢复生产时；
- c. 出厂检验结果与上次型式检验有较大差异时；
- d. 国家质量监督机构提出进行型式检验时。

The type inspection items shall include all the indicators specified in this standard and shall be inspected once a year during normal production. Type inspection should also be carried out in one of the following cases.

- A. Major changes in raw materials, equipment or process may affect product quality;
- B. When the product is suspended for a long time and the production is resumed;
- C. There is a big difference between the results of the ex-factory inspection and the last type inspection;
- D. When the state quality supervision agency proposes to conduct type inspection.

7.5 判定规则

7.5 Decision rules

7.5.1 检验结果全部合格时，判定整批产品合格。

7.5.1 When all the inspection results are qualified, the whole batch of products shall be judged qualified.

7.5.2 若微生物指标检验结果不合格，则判定整批产品不合格，不得复检。

7.5.2 If the microbial index test result is unqualified, the whole batch of products shall be judged unqualified and shall not be reinspected.

7.5.3 若有不超过两项（含两项）不符合本标准，可在同批产品中加倍抽样进行复检，以复

检结果为准。若复检结果仍有一项不符合本标准，则判定整批产品不合格。

7.5.3 If no more than two items (including two items) do not conform to this standard, double sampling from the same batch of products can be carried out for reinspection, and the reinspection result shall prevail. If the reinspection result still does not meet this standard, the whole batch of products will be judged as unqualified.

7.5.4 若有三项以上（含三项）不符合本标准，直接判定整批产品不合格。

7.5.4 If more than three items (including three items) do not meet this standard, the whole batch of products shall be directly judged as unqualified.

8 标识和标签

8 Labels and marks

8.1 产品的标识、标签应符合 GB 7718 和 GB 28050 的规定。

8.1 The product mark and label shall comply with the provisions of GB 7718 and GB 28050.

8.2 食品标签中需标注产品的饮用方法

8.2 The drinking method of the product shall be marked in the food label

直接饮用的产品可以标注“可直接饮用”或“开瓶即饮”等；非直接饮用的产品必须标注稀释
倍数或调配方法。

Direct drinking products can be labeled as "direct drinking" or "ready to drink", etc. Dilution ratio or blending method must be marked for products that are not directly drunk.

9 包装、贮存和运输

9 Packing, storage and transportation

9.1 包装

9.1 The packing

应包装在封闭容器中，包装容器和材料应符合相应的卫生标准和有关规定。
Should be packed in closed containers, packaging containers and materials should meet the

corresponding health standards and relevant regulations.

9.2 贮存

9.2 The storage

成品应贮存在干燥、通风良好或低温的场所，不得与有毒、有害、有异味、易挥发、易腐蚀的物品同处贮存。

Finished products should be stored in a dry, well-ventilated or low-temperature place, not with toxic, harmful, odor, volatile, easy to corrosion in the same place.

9.3 运输

9.3 Transportation

运输产品时应避免日晒、雨淋。不得与有毒、有害、有异味或影响产品质量的物品混装运输。

Avoid sunshine and rain when transporting products. Shall not be mixed with toxic, harmful, smelly or affect the quality of products.
