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杜邦双汇漯河蛋白有限公司企业标准

Q/DBSH 0001S-2017

液体浓缩大豆蛋白

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杜邦双汇漯河蛋白有限公司 发布

前 言

本标准按照 GB/T1.1《标准化工作导则第1部分：标准的结构和编写》编写。

附录 A 为本标准规范性文件。

本标准由杜邦双汇漯河蛋白有限公司提出并起草。

本标准起草人：王玉艳、杜希清。

本标准自实施之日起代替 Q/DBSH 0001S-2014。

本标准与 Q/DBSH 0001S-2014 相比，主要变化如下：

——更新规范性引用文件。

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液体浓缩大豆蛋白

1 范围

本标准规定了液体浓缩大豆蛋白的术语和定义、要求，以及试验方法、检验规则、标志、标签、包装、运输、贮存等。

本标准适用于以低温食用豆粕或食用大豆粕、生活饮用水为原料，添加复配豆制品消泡剂（聚二甲基硅氧烷、司盘 60、吐温 60、蔗糖脂肪酸酯、高碳醇脂肪酸酯复合物、二氧化硅、羧甲基纤维素钠、纯净水）或高碳醇脂肪酸酯复合物，经盐酸沉淀（提取蛋白质，同时使可溶性糖分和可溶性纤维等溶于水）、离心浓缩（通过离心机分离出水，去除原料中可溶性糖分和可溶性纤维等）、水洗提纯（二次离心机分离，去除原料中可溶性糖分和可溶性纤维等）、氢氧化钠中和、均质、杀菌、闪蒸浓缩（去除部分水分）、冷却、灌装而成的液体浓缩大豆蛋白。

2 术语和定义

下列术语和定义适用于本标准。

2.1 液体浓缩大豆蛋白

以低温食用豆粕或食用大豆粕、生活饮用水为原料，添加复配豆制品消泡剂（聚二甲基硅氧烷、司盘 60、吐温 60、蔗糖脂肪酸酯、高碳醇脂肪酸酯复合物、二氧化硅、羧甲基纤维素钠、纯净水）或高碳醇脂肪酸酯复合物，经盐酸沉淀（提取蛋白质，同时使可溶性糖分和可溶性纤维等溶于水）、离心浓缩（通过离心机分离出水，去除原料中可溶性糖分和可溶性纤维等）、水洗提纯（二次离心机分离，去除原料中可溶性糖分和可溶性纤维等）、氢氧化钠中和、均质、杀菌、闪蒸浓缩（去除部分水分）、冷却、灌装而成的液体状态的大豆浓缩蛋白。

3 要求

3.1 原辅料要求

- 3.1.1 低温食用豆粕应符合 GB/T 21494、GB 14932 的规定。
- 3.1.2 食用大豆粕应符合 GB/T 13382、GB 14932 的规定。
- 3.1.3 生活饮用水应符合 GB 5749 的规定。
- 3.1.4 复配豆制品消泡剂应符合 GB 26687 的规定。
- 3.1.5 高碳醇脂肪酸酯复合物应符合附录 A 的规定。
- 3.1.6 盐酸应符合 GB 1886.9 的规定。
- 3.1.7 氢氧化钠应符合 GB 1886.20 的规定。

3.2 感官要求

感官要求应符合表 1 的规定。

表 1 感官要求

项目	要 求	试验方法
性状	0℃~4℃粘稠状液体，-18℃以下冻结固态	取适量试样置于洁净的白色盘（瓷盘或同

色泽	乳白色至乳黄色	类容器)中,在自然光下观察色泽、性状和杂质。闻其气味,用温开水漱口,品其滋味。
气味	具有大豆蛋白固有的气味,无异味	
滋味	具有大豆蛋白固有的滋味	
杂质	无肉眼可见外来杂质	

3.3 理化指标

理化指标应符合表 2 的规定。

表 2 理化指标

项 目	指 标	检验方法
蛋白质/(g/100g)	\geq 8.8 , 65 (以干基计)	GB 5009.5
pH	6.5~7.5	GB 5009.237
总砷(以 As 计)/(mg/kg)	\leq 0.5	GB 5009.11
*铅(以 Pb 计)/(mg/kg)	\leq 0.3	GB 5009.12
黄曲霉毒素 B1/(μ g/kg)	\leq 5.0	GB 5009.22

注:*严于国家标准 GB 2762。

3.4 微生物指标

微生物指标应符合表 3 的规定。

表 3 微生物指标

项 目	采样方案 ^a 及限量				检验方法
	n	c	m	M	
菌落总数/(CFU/g)	5	2	3×10^4	10^5	GB 4789.2
大肠菌群/(CFU/g)	5	1	10	10^2	GB 4789.3 第二法
沙门氏菌/25g	5	0	0	-	GB 4789.4
金黄色葡萄球菌/(CFU/g)	5	0	0	-	GB 4789.10
志贺氏菌/25g	5	0	0	-	GB 4789.5
霉菌/(CFU/g) \leq	10				GB 4789.15
酵母菌/(CFU/g) \leq	10				GB 4789.15

a 采样方案应符合 GB 4789.1 的规定执行。

3.5 净含量及允许短缺量

应符合 JJF 1070 的规定。

3.6 生产加工过程的卫生要求

应符合 GB14881 的规定。

3.7 其它要求

食品添加剂应符合GB 2760的规定；真菌毒素限量应符合GB 2761的规定；污染物限量应符合GB 2762的规定；农药最大残留限量应符合GB 2763的规定。

4 检验

出厂检验项目包括感官、净含量（仅限于小包装定量产品）、蛋白质、pH值、菌落总数、大肠菌群；型式检验按国家有关规定执行。

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附录 A

高碳醇脂肪酸酯复合物质量安全要求

A.1 感官要求

黄褐色不透明液体，无异味，无肉眼可见杂质。

A.2 理化、微生物指标

检测项目	标准要求
水中溶解性 (25℃)	均匀分散
粘度 (cps)	600-1800
菌落总数 (CFU/g)	≤100
沙门氏菌/25g	不得检出
铅 (以 Pb 计) / (mg/kg) ≤	1.0
砷 (以 As 计) / (mg/kg) ≤	1.0

注：本附录引自美国 FDA 食品法规 § 173.340 Defoaming agents (消泡剂) 及相关要求。

ELECTRONIC CODE OF FEDERAL REGULATIONS

e-CFR Data is current as of September 9, 2014

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Title 21: Food and Drugs

[PART 173—SECONDARY DIRECT FOOD ADDITIVES PERMITTED IN FOOD FOR HUMAN CONSUMPTION](#)[Subpart D—Specific Usage Additives](#)**§173.340 Defoaming agents.**

Defoaming agents may be safely used in processing foods, in accordance with the following conditions:

(a) They consist of one or more of the following:

(1) Substances generally recognized by qualified experts as safe in food or covered by prior sanctions for the use prescribed by this section.

(2) Substances listed in this paragraph (a)(2) of this section, subject to any limitations imposed:

Substances	Limitations
Dimethylpolysiloxane (substantially free from hydrolyzable chloride and alkoxy groups; no more than 18 percent loss in weight after heating 4 hours at 200 °C; viscosity 300 to 1,050 centistokes at 25 °C; refractive index 1.400-1.404 at 25 °C)	10 parts per million in food, or at such level in a concentrated food that when prepared as directed on the labels, the food in its ready-for-consumption state will have not more than 10 parts per million except as follows: Zero in milk; 110 parts per million in dry gelatin dessert mixes labeled for use whereby no more than 16 parts per million is present in the ready-to-serve dessert; 250 parts per million in salt labeled for cooking purposes, whereby no more than 10 parts per million is present in the cooked food.
Formaldehyde	As a preservative in defoaming agents containing dimethylpolysiloxane, in an amount not exceeding 1.0 percent of the dimethylpolysiloxane content.
α -Hydro- <i>omega</i> -hydroxy-poly(oxyethylene)/poly(oxypropylene) (minimum 15 moles)/poly(oxyethylene) block copolymer (CAS Reg. No. 9003-11-6) as defined in §172.808(a)(3) of this chapter	For use as prescribed in §172.808(b)(3) of this chapter.
Polyacrylic acid, sodium salt	As a stabilizer and thickener in defoaming agents containing dimethylpolysiloxane in an amount reasonably required to accomplish the intended effect.
Polyethylene glycol	As defined in §172.820 of this chapter.
Polyoxyethylene 40 monostearate	As defined in U.S.P. XVI.
Polysorbate 60	As defined in §172.836 of this chapter.
Polysorbate 65	As defined in §172.838 of this chapter.
Propylene glycol alginate	As defined in §172.858 of this chapter.
Silicon dioxide	As defined in §172.480 of this chapter.
Sorbitan monostearate	As defined in §172.842 of this chapter.
White mineral oil: Conforming with §172.878 of this chapter	As a component of defoaming agents for use in wash water for sliced potatoes at a level not to exceed 0.008 percent of the wash water.

(3) Substances listed in this paragraph (a)(3), provided they are components of defoaming agents limited to use in processing beet sugar and yeast, and subject to any limitations imposed:

Substances	Limitations
Aluminum stearate	As defined in §172.863 of this chapter.
Butyl stearate	
BHA	As an antioxidant, not to exceed 0.1 percent by weight of defoamer.
BHT	Do.
Calcium stearate	As defined in §172.863 of this chapter.
Fatty acids	As defined in §172.860 of this chapter.
Formaldehyde	As a preservative.
Hydroxylated lecithin	As defined in §172.814 of this chapter.
Isopropyl alcohol	
Magnesium stearate	As defined in §172.863 of this chapter.
Mineral oil: Conforming with §172.878 of this chapter	Not more than 150 p.p.m. in yeast, measured as hydrocarbons.
Odorless light petroleum hydrocarbons: Conforming with §172.884 of this chapter	
Petrolatum: Conforming with §172.880 of this chapter	
Petroleum wax: Conforming with §172.886 of this chapter	
Petroleum wax, synthetic	
Polyethylene glycol (400)dioleate: Conforming with §172.820(a)(2) of this chapter and providing the oleic acid used in the production of this substance complies with §172.860 or §172.862 of this chapter	As an emulsifier not to exceed 10 percent by weight of defoamer formulation.
Synthetic isoparaffinic petroleum hydrocarbons: Conforming with §172.882 of this chapter	
Oleic acid derived from tall oil fatty acids	Complying with §172.862 of this chapter.
Oxystearin	As defined in §172.818 of this chapter.
Polyoxyethylene (600) dioleate	
Polyoxyethylene (600) monoricinoleate	
Polypropylene glycol	Molecular weight range, 1,200-3,000.
Polysorbate 80	As defined in §172.840 of this chapter.
Potassium stearate	As defined in §172.863 of this chapter.
Propylene glycol mono- and diesters of fats and fatty acids	As defined in §172.856 of this chapter.
Soybean oil fatty acids, hydroxylated	
Tallow, hydrogenated, oxidized or sulfated	
Tallow alcohol, hydrogenated	

(4) The substances listed in this paragraph (a)(4), provided they are components of defoaming agents limited to use in processing beet sugar only, and subject to the limitations imposed:

Substances	Limitations
<i>n</i> -Butoxypoly (oxyethylene)- poly (oxypropylene) glycol	Viscosity range, 4,850-5,350 Saybolt Universal Seconds (SUS) at 37.8 °C (100 °F). The viscosity range is determined by the method "Viscosity Determination of <i>n</i> -butoxypoly(oxyethylene)-poly(oxypropylene) glycol" dated April 26, 1995, developed by Union Carbide Corp., P.O. Box 670, Bound Brook, NJ 08805, which is incorporated by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies of the material incorporated by reference are available from the Division of Petition Control, Center for Food Safety and Applied Nutrition (HFS-215), Food and Drug Administration, 5100 Paint Branch Pkwy., College Park, MD 20740, and may be examined at the Center for Food Safety and Applied Nutrition's Library, 5100 Paint Branch Pkwy., College Park, MD 20740, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html .
Monoester of alpha-hydro- omega-hydroxy- poly (oxyethylene) poly (oxypropylene) poly (oxyethylene) (15 mole minimum) blocked copolymer derived from low erucic acid rapeseed oil	

(b) They are added in an amount not in excess of that reasonably required to inhibit foaming.

[42 FR 14526, Mar. 15, 1977, as amended at 43 FR 2872, Jan. 20, 1978; 46 FR 30493, June 9, 1981; 46 FR 57476, Nov. 24, 1981; 60 FR 54036, Oct. 19, 1995; 61 FR 632, Jan. 9, 1996; 63 FR 29134, May 28, 1998]

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编制说明

液体浓缩大豆蛋白是以低温食用豆粕或食用大豆粕、生活饮用水为原料，添加复配豆制品消泡剂（聚二甲基硅氧烷、司盘 60、吐温 60、蔗糖脂肪酸酯、高碳醇脂肪酸酯复合物、二氧化硅、羧甲基纤维素钠、纯净水）或高碳醇脂肪酸酯复合物，经盐酸沉淀（提取蛋白质，同时使可溶性糖分和可溶性纤维等溶于水）、离心浓缩（通过离心机分离出水，去除原料中可溶性糖分和可溶性纤维等）、水洗提纯（二次离心机分离，去除原料中可溶性糖分和可溶性纤维等）、氢氧化钠中和、均质、闪蒸浓缩（去除部分水分）、杀菌、冷却、灌装而成。

根据《中华人民共和国食品安全法》和《中华人民共和国标准化法》的有关规定，参照 GB 20371《食品安全国家标准 食品加工用植物蛋白》要求制订本企业标准，作为组织生产、质量控制和监督检查依据。

本标准中铅指标严于食品安全国家标准 GB 2762 的规定。

杜邦双汇漯河蛋白有限公司

2017 年 10 月 10 日