Social Organization Standard

T/CIQA 15-2020

Specification on Freeze-dried Pet Food

Issued on November 12, 2020

Implemented on January 1, 2021

Forward

This document drafted under GB/T 1.1-2020 "Directives for Standardization Part 1: Rules for the structure and drafting of standardizing documents".

The copyright of this standard belongs to the China Entry-Exit Inspection and Quarantine Association. Without permission, no unit or person may copy, reprint, plagiarize, adapt, compile, or translate this standard for profit.

The content of this document does not involve patents.

This document was proposed and managed by the China Entry-Exit Inspection and Quarantine Association Standards Technical Committee on Pet Industry.

Document drafting organizations: Feed Research Institute of Chinese Academy of Agricultural Sciences, Tianjin Ranova Pet Food Co., Ltd., Chongyi Capital Investment Co., Ltd., Gambol Pet Group Co., Ltd., Hunan Peto Biotechnology Co., Ltd., Anhui New Rainbow Feed Technology Co., Ltd. Jinan Customs Technology Center, Fujian Love around Technology Co., Ltd.

The main draftman: Liu Fengqi, Huang Zhijian, Qin Hua, Xiao Yile, Huang Xiaofei, Ma Guoliang, Wang Xiaowen, Wang Shaofi, Shao Erbo, Wen Shukun, Pan Xianqi.

The technical requirements of this standard shall not be lower than the national mandatory standards.

Specification on freeze-dried pet food

1 Limitation

This document specifies the terms and definitions, technical requirements, inspection methods, inspection rules, label, package, transportation, storage and shelf life of freeze-dried pet food.

This document applies to freeze-dried pet food.

2 Normative references

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

GB/T 2828.1 Sampling procedures for inspection by attributes Part 1: Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection.

GB/T 6435 Determination of moisture in feedstuffs.

GB/T 10647 Feed industry terms.

GB/T 18823 Permitted tolerance for judgement of testing results in feeds.

JJF 1070 Rules of metrological testing for net quantity of products in prepackages with fixed content.

3 Terms and definitions

The following terms and definitions defined in GB/T 10647 apply to this document.

3.1 Pet

Dogs, cats, and other animals raised for play, companion, work, etc.

Note: The limitation of pets in this document only includes dogs and cats.

3.2 Vacuum freeze-drying

The processing of freezing the raw materials so that the moisture turns into ice and sublimating the ice under vacuum to drying, hereinafter freeze-dried.

3.3 Freeze-dried pet food

Products processed and manufactured by vacuum freeze-drying technology for pets.

4 Technical requirement

4.1 Sensory requirement

The sensory requirements of the same batch of products should meet the requirement of Table 1.

Table 1: Sensory requirement

Category	Requirement	
Smell	The original flavor of the ingredients is retained to the greatest extent, the loss of various aromatic substances shall be minimized, and there is no peculiar smell other than the smell of the ingredients.	
Taste	The inherent taste of the ingredients is retained to the greatest extent, and there is no peculiar taste other than the taste of the ingredients.	
Texture	The product is in good shape, no shrinkage or deformation. There is no hollow or hard core inside the product.	
Rehydration	The product will be restored to fresh raw materials when soaked in warm water for no more than 5 minutes, and it will be suspended in water.	
Foreign matter	No visible foreign matter, no mildew or agglomeration.	

4.2 Physiochemical index

The physiochemical indexes of the same batch of products should meet the index of Table 2.

Table 2: Physiochemical index

Category	Unit	Requirement
Moisture	%	≤8.0

4.3 Hygienic index

The product should meet the requirements of "Pet Feed Hygiene Regulations".

4.4 Net content

The product should meet the requirements of the "Measures for the Supervision and Management of Quantitative Packaging Commodities".

- 5 Test method
- 5.1 Determination of sensory requirements

Place the product on a clean white porcelain plate, observe its color, shape and foreign matters, smell it and taste it under natural indoor light. Break the product apart and check its internal state. Immerse the product in warm water (25°C~35°C), let it stand for 5 minutes, and observe the rehydration.

- 5.2 Determination of physiochemical index
- 5.2.1 Determination of moisture

According to GB/T 6435.

5.3 Determination of health index

According to "Pet Feed Hygiene Regulations".

5.4 Determination of net content

According to "JJF 1070".

- 6 Testing regulations
- 6.1 Batching

The products produced with the same raw material, same shift, and same process constitute one batch.

6.2 Sampling

According to the provisions of GB/T 2828.1.

6.3 Factory inspection

Each batch of products should be inspected before leaving the factory, and only qualified products can leave the factory. The factory inspection items should include but are not limited to the following aspects: sensory indicators, moisture, and net content.

6.4 Type Test

Type Test including all items specified in this document. Under normal production, type test should be conducted at least once a year. In any of the following conditions, type test should also be conducted:

- a) Product is qualified to go into production;
- b) Producing technique, ingredient or the origin of major material has an obvious change which may influence product quality;
- c) When production is resumed if the production is stopped for more than half a year;
- d) When there is a big difference between the factory test result and the last type test result;

e) When the feed administrative department requests the type test.

6.5 Judgment Rules

If there are unqualified items in the test, samples should be taken from twice as many packages of the same batch for retest; if there are still unqualified items, the batch of products are judged as unqualified.

If any result of the microbiological test item is unqualified, the batch of products are judged as unqualified and should not be retested.

The Permitted tolerance of test results should be in accordance with GB / T 18823.

7 Label, Package, Delivery, Storage and Shelf Life

7.1 Label

According to the "Pet Feed Label Regulations".

- 7.2 Package
- 7.2.1 The package should be complete, sealed, moisture-proof, waterproof and not easy to be damaged.
- 7.2.2 After the product is processed, necessary measures should be taken to prevent the contamination of pathogens_o
- 7.2.3 The product should be packed in a new package.
- 7.2.4 Package should be non-toxic, harmless and odorless.
- 7.2.5 It should meet the requirements of "Measures for the Metrological Supervision and Administration of Quantitatively Packed Commodities".
- 7.3 Transportation
- 7.3.1 The conveyance should be clean, sanitary, and have rain and pollution prevention measures.
- 7.3.2 During transportation, extrusion, collision, sun exposure and rain should be prevented.
- 7.3.3 It should not be mixed with toxic, harmful, smelly, corrosive and other goods.
- 7.3.4 It should be handled carefully during loading and unloading. Throwing is strictly prohibited
- 7.4 Storage

Product should be stored in a cool, ventilated and dry place. Pay attention to water-proof, mould proof, rat proof and insect proof. It should not be mixed with toxic and harmful substances

7.5 Shelf Life

Shelf life of the products should be determined according to the characteristics of the products. Products within the shelf life should meet the technical requirements of the products.