



THAI AGRICULTURAL STANDARD

TAS 7012-2008

DRIED SHRIMP

National Bureau of Agricultural Commodity and Food Standards

Ministry of Agriculture and Cooperatives

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Dried shrimp is a commercially important product for both national and international trades. At present, dried shrimp industries are small industries, they need to be developed in order to obtain technologies to improve quality and safety. It is deemed necessary to establish the standard on dried shrimp for promoting international trade

The provisions of this standard are based on the information of the following documents:

Thai Industrial Standard Institute, B.E. 2533 (1990). *Industrial Standards: Dried Shrimp*, TIS 1003-2533 (1990), Ministry of Industry, Bangkok.

Department of Medical Sciences. B.E. 2549 (2006). *General Concept of Chemical / Microorganisms in Foods Safety Project*.

ICMSF. 1986. 2nd Ed. *International Commission on Microbiological Specifications for Foods. Microorganisms in Foods 2; Sampling for microbiological analysis: Principles and specific applications*.

Remark:

The standard title has been revised from “Thai Agricultural Commodity and Food Standard (TACFS)” to “Thai Agricultural Standard (TAS)” in accordance with the enforcement of the Agricultural Standards Act B.E. 2551 (2008).



**NOTIFICATION OF THE NATIONAL COMMITTEE ON
AGRICULTURAL COMMODITY AND FOOD STANDARDS
SUBJECT: THAI AGRICULTURAL COMMODITY AND FOOD STANDARD:
DRIED SHRIMP**

The resolution of the 1/2551 session of the National Committee on Agricultural Commodity and Food Standards dated 11 August B.E 2551 (2008) endorsed the Thai Agricultural Commodity and Food Standard entitled Dried Shrimp. This standard would be of benefits for quality improvement, facilitating trade and protecting consumers.

By virtue of the Cabinet Resolution on Appointment and Authorization of the National Committee on Agricultural Commodity and Food Standards dated 5 August B.E. 2551 (2008), the Notifies on Thai Agricultural Commodity and Food Standard entitled Dried Shrimp is hereby issued as voluntary standard, the details of which are attached herewith.

Notified on 14 August B.E.2551 (2008)

(Mr. Somsak Prissananthakul)

Minister of Agriculture and Cooperatives

Chairperson of the National Committee on Agricultural Commodity and Food Standards

THAI AGRICULTURAL STANDARD

DRIRD SHRIMP

1 SCOPE

This standard is established to control the quality of dried shrimps which are intended for human consumption.

2 DEFINITIONS

For the purposes of this standard:

2.1 **Dried shrimp** is a product prepared from fresh shrimp of the family *Penaeidae* and *Palaemonidae* according to the process described in 2.2. The product shall be shelled on or shelled off and shall have head and tail on or off.

2.2 **Processing of dried shrimp** means the fresh shrimp is washed with clean water and precooked in hot water or in steam to loosen the meat from the shell. The precook process helps peeling off the shell. The moisture of the precooked shrimp is reduced by using suitable heating source to the desired level. The dried shrimp is graded and packed.

2.3 **Water activity (a_w)** is the figure showing the amount of free water available for the growth of microorganisms [which may affect quality of food]. This figure is obtained by the ratio of water vapor pressure of the product to the vapor pressure of pure water at the same temperature.

2.4 **Broken dried shrimp** is the dried shrimp having two to four segments of the body.

2.5 **Pieces** are parts of dried shrimp having less than two segments of the body and loosened other than the meat of the shrimp.

3 TYPE

The dried shrimp may be presented in the following:

- (1) With shell on.
- (2) With shell off.
- (3) With incomplete shell off. Product of this type is obtained by peeling the shell off after drying process of shrimp.

4 COMPOSITION

4.1 INGREDIENTS

clean fresh shrimps.

4.2 OTHER INGREDIENTS

edible salt.

5 QUALITY FACTORS

5.1 Moisture of the product shall not exceed 30% by weight.

5.2 Water activity shall not exceed 0.75.

5.3 Salt content shall not exceed 7% by weight.

5.4 Color of the dried shrimp shall be according to the species of the raw materials.

5.5 Dried shrimp shall have the natural odour and flavour of the shrimp. There are no off odour and off flavour and other objectionable odour and flavour such as ammonia or rancid.

6 PACKAGING

6.1 The package for packing dried shrimp shall be hygienic and able to keep the product safe and sound.

6.2 In each container the product shall have similar shrimp with uniform size.

7 SIZING AND TOLERANCES

Without specific deal between buyers and suppliers, prawn sizes are described in Table 1.

Table 1 Sizes of dried shrimps

Sizes	Number per 100 g
extra large	Not more than 50
large	51 to 250
medium	251 to 500
small	More than 501

The deviation in each size shall be acceptable provided that it is not more than 15%.

8 FOOD ADDITIVES

In compliance with the provisions of the relevant laws and requirements under the Thai Agricultural Standard on Food Additive.

9 CONTAMINANTS

In compliance with the provisions of the relevant laws and requirements under the Thai Agricultural Standard on Contaminants.

10 HYGIENE

10.1 The products shall be processed under The Code of Practice on Food Hygiene (TAS 9023) and relevant laws and regulations.

10.2 Kinds and amounts of microorganism shall be as the following:

- (1) Total viable counts not exceed 10^5 cfu/g
- (2) Yeast and mold not exceed 5×10^2 cfu/g
- (3) *Salmonella* spp. shall not be found in 25 g sample
- (4) *Staphylococcus aureus* not exceed 10^2 cfu/g
- (5) *Escherichia coli* lower than 3 MPN/g
- (6) *Clostridium perfringens* not exceed 10^2 cfu/g

11 MARKING AND LABELLING

11.1 CONTAINERS FOR RETAILING

Code, marking and detailed information shall be legibly marked on the container in such a way that they shall not confuse the consumers. The following specific provisions shall be applied:

- (1) Name of the product as declared on the label shall be “dried shrimp”
- (2) Types of the product as shell on, shell off or creaked shell.
- (3) Principal composition shall declare as percent by weight.
- (4) Kind and amount of permitted food additives.
- (5) Net weight declares in gram or kilogram.
- (6) Size as indicated in Table 1.
- (7) Expiring or manufacturing dates.
- (8) Name and location of the producer and re-packer for domestic production and name and location of the importer for imported product
- (9) Lot identification.
- (10) Storage instruction. The label shall include terms to indicate that the product shall be stored at temperatures between 2 °C to 10 °C
- (11) Label of produce shall be in Thai. Produce label for export can be in any language.

11.2 CONTAINER FOR NON RETAILING

The general provision of 11.1 shall be applied. The detailed information on (1), (8), (9) and (10) shall be omitted or shall be replaced by code or symbolic market.

12 SAMPLING METHOD

Complied with the provisions of relevant regulations and the Thai Agricultural Standard on Sampling Method.

13 ANALYTICAL METHODS

The analytical methods shall be applied according to Table 2

Table 2 The analytical methods

Items	Methods	Principle
1. Moisture	AOAC : 950.46 (The Association of Analytical Communities) latest edition or equivalence other method	Gravimetry
2. Water activity	a_w Apparatus: measure at 25 ± 1 °C	Direct measurement of partial pressure/dew point or indirect measurement of physical/ electrical characteristics
3. Salt content	AOAC : 937.09 latest edition or equivalence other method	Volumetric (titrimetry)
4. Colour	Organoleptic Test	Sensory evaluation
5. Odour and Flavour	Organoleptic Test	Sensory evaluation
6. Total Viable Count	BAM (Bacteriological Analytical Manual) Chapter 3 or equivalence other method	Direct Plating
7. Yeast and Mold	BAM (Bacteriological Analytical Manual) Chapter 18 or equivalence other method	Direct Plating
8. <i>Salmonella</i> spp.	BAM (Bacteriological Analytical Manual) Chapter 5 or equivalence other method	MSRV (Modified Semi-solid Rappaport Vassiliadis method), Biochemical and Serological Confirmation
9. <i>Staphylococcus aureus</i>	BAM (Bacteriological Analytical Manual) Chapter 12 or equivalence other method	Direct Plating
10. <i>Escherichia coli</i>	BAM (Bacteriological Analytical Manual) Chapter 4 or equivalence other method	MPN (most probable number method)
11. <i>Clostridium perfringens</i>	BAM (Bacteriological Analytical Manual) Chapter 16 or equivalence other method	Direct Plating
12. Net weight	weighing	Gravimetry

14 DEFECTS

14.1 Dried shrimps shall not have broken pieces and loosed particles more than allowance in Table 3

Table 3 Quantity of defects

Sizes	Quantity of dried shrimp (number/ 100 g)	Weight of broken (%)	Weight of pieces (%)
extra large	Not more than 50	Not more than 1.0	Not more than 1.0
large	51 to 250	Not more than 8.0	Not more than 1.0
medium	251 to 500	Not more than 12.0	Not more than 1.0
small	More than 501	Not more than 20.0	Not more than 1.0

14.2 FOREIGN MATTERS

The final product shall be free from any foreign material that poses a threat to human health or poses as indicators of malpractices.

15 LOT ACCEPTANCE

A lot is the control of dried shrimp which has the same type, composition and size of packages and delivery in the same time.

The lot shall be considered as meeting the requirements of this standard when:

15.1 The quantity of defects do not exceed the level as described in table 3

15.2 The average net weight of all sample unit shall not less than the declared weight.

15.3 The quality factors, packaging, food additives, contaminants, hygiene labeling, sampling method and analytical method requirements of sections 5, 6 and 8 to 13 are met.