

BHUTAN STANDARD FOR DRY FISH AND DRIED SALTED FISH

1. PREAMBLE

This standard is issued pursuant to the Food Rules and Regulations of Bhutan 2007. This standard is based mainly on the Codex General Standard for salted fish/dry fish (Codex Standard 167-1989).

2. SCOPE

This standard applies to dry fish and dried salted fish.

3. DESCRIPTION

3.1 Product Definition

Dry fish/ dry salted fish are the product obtained from fresh, wholesome fish (“Sermeling, Pakpa, Banmatsha, Snake fish, Salsa, Puttimacha, Sitara, Jingemasa” or other species of fish).

3.2 Process Definition

- a. **Dry fish** - Dried fish is prepared by cleaning fish thoroughly with potable water and dried either in the sun on clean raised platforms or spread on mats or drying racks or hanging in poles in artificial driers, till the moisture is reduced to 10 percent. The material shall not have salt or lime excrescence on the surface.
- b. **Dry salted fish** - The fish shall be fully saturated with salt (heavy salted) or partially saturated to a salt content not less than 10 percent by weight of the salted fish which has been dried.

3.2.1 Salting

Salting is the process whereby whole fish is eviscerated, cleaned, washed and packed with layer of salt.

3.2.2 Drying

- a. **Natural Drying** - the fish is dried by exposure to the open air
- b. **Artificial Drying** - the fish is dried in mechanically circulated air, the temperature and humidity of which may be controlled

4. ESSENTIAL COMPOSITION AND QUALITY FACTORS

The product shall be free from foreign matter, objectionable odour and flavour. The product shall be free from visible fungal, insect or mite infestations.

The products shall conform to the following requirements:

4.1 Dry fish:

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|---|----------------------------|
| a. Moisture | Not more than 15.0 percent |
| b. Sodium chloride | 2.5 to 7.5 per cent |
| c. Ash insoluble in HCl on dry matter basis | 1.0 to 1.5 percent |

4.2 Dry salted fish:

- | | |
|---|---|
| a. Moisture | Not more than 16.0 percent |
| b. Sodium chloride | Not less than 10.0 percent and not more than 15.0 percent |
| c. Ash insoluble in HCl on dry matter basis | not more than 1.0 percent |

The product may contain the following food additives.

Sodium sorbate, calcium sorbet, potassium sorbate singly or in combination, sorbic acid all expressed as sorbic acid, at maximum level in the final product 200 mg/kg.

5. HYGIENE REQUIREMENTS

The products covered by the provisions of this Standard should be prepared and handled in accordance with the appropriate sections of the *General Principles of Food Hygiene* (CAC/RCP 1-1969), the *Code of Practice for Fish and Fishery Products* (CAC/RCP 52-2003), and other relevant Codex Codes of Hygienic Practice and Codes of Practice.

6. MICROBIOLOGICAL REQUIREMENTS

The product shall conform to the following microbiological requirements:

- | | |
|--|-----------------------|
| a. Total coliform count | maximum 100000/gm |
| b. <i>E.coli</i> | not more than 20/gm |
| c. <i>Staphylococcus aureus</i> | not more than 100/ gm |
| d. <i>Salmonella</i> , <i>Shigella</i> , <i>Vibrio cholarae</i> and <i>Vibrio parahaemolyticus</i> | - all absent in 25/gm |
| e. Yeast and mould Count | absent in 25gm |

7. CONTAMINANTS

The product should conform to the following heavy metal requirements:

- a. Lead not more than 0.3 mg/kg
- b. Methyl mercury not more than 0.5 mg/kg
- c. Zinc 50 mg/Kg
- d. Copper 10 mg/Kg

8. PACKING

The dry fish/dry salted fish shall be packed in packages which are leak proof, impermeable to oxygen and moisture and prevent deterioration during transportation and storage. In case polyester/polythene is used, only food grade plastics shall be used.

9. LABELLING PROVISIONS

Dry fish/dry salted fish shall be labelled as “(give name of fish) fish” and it shall conform to the provisions of the Bhutan Standard for Labelling of Prepackaged Foods.