

འབྲུག་མར་གྱི་གནས་ཚད།

**BHUTAN STANDARD**

**Butter**



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**BHUTAN STANDARDS BUREAU**

The National Standards Body of Bhutan

THIMPHU 11001

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## **BTS 299:2020**

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## **BTS 299:2020**

### **FOREWORD**

This Bhutan Standard for Butter was developed by Bhutan Standards Bureau after the draft finalized by the Food and Agriculture Technical Committee TC 02 and approved by Bhutan Standards Bureau Board (BSB Board) on Day Month year.

This standard is subject to systematic review after five years to keep pace with the market trends, industrial and technological developments. Any suggestions and further information may be directed to the concerned Technical Committee.

## **BHUTAN STANDARD FOR BUTTER**

### **1 Scope**

This standard applies to butter intended for direct consumption or for further processing in conformity with the specification prescribed in this standard.

### **2 Normative references**

The following documents are indispensable for application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including amendments) applies.

CXS 193-1995 *General standard for contaminants and toxins in food and feed*

CAC/MRL 2-2015 *Maximum residue limits (MRLs) and risk management recommendations for residues of veterinary drugs in foods*

BTS 21: 2017 *BTS for Food hygiene*

BTS 52: 2018 SARS 0008: 2017 *Code of hygienic practice for dairy industry*

BTS 139: 2019 SARS 0014: 2018 *Food hygiene- General principles- Code of practice*

BTS 268: 2020 CODEX STAN 1-1985 *General standard for labelling of prepackaged foods*

BTS 271: 2020 CODEX STAN 192-1995 *General standards for food additives*.

### **3 Definitions**

*For the purpose of this standard the following definitions shall apply*

#### **3.1 Butter**

Butter is a fatty product derived exclusively from pasteurized milk, principally in the form of an emulsion of the type water-in-oil.

#### **3.2 Contaminants**

Contaminant means any biological or chemical agent, foreign matter, or other substances not intentionally added to food which may compromise the food quality.

#### **3.3 Additives**

Any substance not normally consumed as a food by itself and not normally used as a typical ingredient of the food, whether or not it has nutritive value, the intentional addition of which to food for a technological (including Organoleptic) purpose in the manufacture, processing, preparation, treatment, packing, packaging, transport or holding of such food results, or may be reasonably expected to result (directly or indirectly), in it or its by-products becoming a component of or otherwise affecting the characteristics of such foods.

#### **3.4 Adulteration**

The addition or subtraction of any substance intentionally to/from food, so that the natural composition and quality of food substance is affected.

#### **3.5 Food grade salt**

Food grade salt is a crystalline product consisting predominantly of sodium chloride. It is obtained from the sea, from underground rock salt deposits or from natural brine.

## 4 Essential composition and quality requirements

### 4.1 Raw materials

Butter shall be made exclusively from pasteurized milk.

### 4.2 Permitted ingredients

4.2.1 Sodium chloride and food grade salt

4.2.2 Cultures of harmless (non-pathogenic) lactic acid producing bacteria

4.2.3 Potable water

### 4.3 Compositional requirements

The compositional requirement for butter shall be as given in *table 1*;

**Table 1 – Compositional requirements for butter**

Sl. No	Parameter	Requirement (% m/m)	Test Methods
1	Minimum milk fat content	80	AOAC 938.06
2	Maximum milk solids-not-fat content	2	ISO 3727-2:2001
3	Maximum water content	16	AOAC 920.116
4	Maximum Salt content	3	AOAC 960.29

### 4.4 Organoleptic qualities

#### 4.4.1 Flavour

The finished product shall be of characteristic flavour, free from taint and rancidity. It shall be free from animal body fat, vegetable oil and fat, mineral oil, adulterants such as starch, hydrogenated oil, mashed potato, local cheese, cellulose, banana and added flavour.

#### 4.4.2 Body and texture

The product shall be firm, neither greasy nor oily at room temperature and showing granular texture on breaking.

## 5 Food additives & preservatives

The products covered by this standard shall conform to the maximum limits established in BTS 271: 2020 CODEX STAN 192-1995 General standards for food additives.

## 6 Contaminants

The products covered by this standard shall conform to maximum levels for contaminants specified in the CXS 193-1995.

The milk used in the manufacture of the products covered by this Standard shall conform to the maximum levels for contaminants and toxins specified in CXS 193-1995 and the maximum residue limits for veterinary drug and pesticides shall conform to CAC/MRL 2-2015.

### 6.1 Mycotoxins

Butter shall not have more than 0.5 µg/kg aflatoxin M1.

## 6.2 Heavy metals

The products covered by this standard shall conform to the maximum limits in *table 2*;

**Table 2 – Heavy metal limit**

Sl. No	Heavy metal	Maximum Level(mg/kg)
1	Arsenic	0.1
2	Lead	0.02

## 7 Hygiene

It is recommended that the products covered by the provisions of this standard be prepared and handled in accordance with BTS 21: 2017 BTS for Food hygiene , BTS 52: 2018 SARS 0008: 2017 Code of hygienic practice for dairy industry and BTS 139: 2019 SARS 0014: 2018 Food hygiene- General principles- Code of practice.

## 8 Microbiological limits

The microbiological limits for butter shall conform to the maximum limits established in *table 3*;

**Table 3 – Microbiological limit**

Sl. No	Microorganism	Requirement	Method of test
1	Total Plate count	< 50000 cfu/g	IS 5402 FAO manual of food Quality control, 14/4, Chapter-2
2	<i>E. coli</i> by MPN	Absent/g or ml	IS 5887 (Part-1) FAO manual of food Quality control, 14/4, Chapter-3
3	Salmonella	Absent /25g or 25ml	IS 5887 (Part-3)
4	Mould and yeast	< 50 cfu/g	IS 5403 FAO manual of food Quality control, 14/4, Chapter-19
5	Total Coliform Count by MPN	< 50 MPN/g	IS 5401 (part-2) FAO manual of food Quality control, 14/4, Chapter-3
6	<i>Staphylococcus aureus</i>	< 50 cfu/g	IS 5887 (Part-2)
7	<i>Listeria monocytogenes</i>	< 50 cfu/g	IS 14988(Part-1)

## 9 Packaging

All the materials used for wrapping or packaging of the butter shall be of such nature as to impart no off-flavour or odour, non-toxic nor in any other way contaminate the product which may pose threat to the safety of butter.

## 10 Labelling

In addition to the provisions of the labelling in BTS 268: 2020 Codex Stan 1-1985 *General standard for labelling of prepackaged foods*, the following specific provisions apply:

### 10.1 Name of the food

The name of the food shall be "Butter". The name "butter" with a suitable qualification shall be used for butter with more than 95% fat. Butter may be labelled to indicate whether it is salted or unsalted according to national legislation and may specify whether obtained from raw or pasteurized milk.

### 10.2 Declaration of milkfat content

If the consumer would be misled by the omission, the milkfat content shall be declared in a manner found acceptable in the country of sale to the final consumer, either (i) as a percentage by mass, or (ii) in grams per serving as quantified in the label provided that the number of servings is stated.

## 11 Storage

Butter shall be stored under conditions that prevent spoilage, protect against contamination and minimize damage as given in *table 4*;

**Table 4 – Condition for storage**

Sl.No	Dairy Food	How to Store	On Refrigerator Shelves (Below 5° C)	In Freezer 0 ° F (-18° C) or below, properly packaged
1	Butter	Refrigerate immediately.	Up to 2 months for salted butter; upto 2 weeks for unsalted butter.	6 to 9 months for salted butter; up to 5 months for unsalted butter.

## 12 Methods of analysis and sampling

The products covered by the provisions of this standard shall be tested using standard methods declared in this standard or any other validated method of analysis for test methods not prescribed in this standard.

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- [4] Food Safety and Standards (Food Product Standards and food Additive) Regulation of India, 2011.
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