

འབྲུག་དར་ཚིའི་གནས་ཚད།

**BHUTAN STANDARD**

Datshi



ICS 67.100.30

© Copyright 2020

**BHUTAN STANDARDS BUREAU**

The National Standards Body of Bhutan  
THIMPHU 11001

འབྲུག་དར་ཆེན་གནས་ཚད།

**BHUTAN STANDARD**

Datshi

**PDF disclaimer**

This PDF file may contain embedded typefaces. In accordance with Adobe's Licensing policy, this file may be printed or viewed but shall not be edited unless the typefaces which are embedded are licensed to and installed on the computer performing editing. In downloading this file, parties accept therein the responsibility of not infringing Adobe's licensing policy. The Bhutan Standards Bureau accepts no liability in this area.

Adobe is a trademark of Adobe Systems Incorporated.

**COPYRIGHT PROTECTED DOCUMENT**

© BSB 2020

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either BSB at the address below in the country of the requester.

Director General  
Bhutan Standards Bureau  
Thimphu-11001  
Tel : 00975-2-325104/325401  
Fax: 00975-2-323712/328298  
Web: [www.bsb.gov.bt](http://www.bsb.gov.bt)  
Published in August 2020

## Table of content

1 Scope.....	1
2 Normative references.....	1
3 Definitions.....	1
4 Essential composition and quality requirements.....	1
4.1 Raw materials.....	1
4.2 Permitted ingredients.....	1
4.3 Compositional requirements.....	2
4.4 Organoleptic properties.....	2
4.4.1 Flavour.....	2
4.4.2 Body and texture.....	2
4.4.3 Color and Appearance.....	2
5 Food Additives & Preservatives.....	2
6 Contaminants.....	2
6.1 Mycotoxins.....	2
6.2 Heavy Metal.....	2
7 Hygienic.....	3
8 Microbiological limits.....	3
10 Labelling.....	3
11 Storage.....	3
12 Methods of Analysis and Sampling.....	3
BIBLOGRAPHY.....	5

## **BTS 300:2020**

### **FOREWORD**

This Bhutan standard for Datshi 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](#) 2020.

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 DATSHI

### 1 Scope

This standard applies to *datshi* 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 Terms and definition

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

#### 3.1 Datshi

Datshi is a firm white cheese made from the pasteurized milk.

#### 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.

### 4 Essential composition and quality requirements

#### 4.1 Raw materials

Datshi shall be made exclusively from pasteurized milk.

#### 4.2 Permitted ingredients

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

## BTS 300:2020

### 4.2.2 Potable water

## 4.3 Compositional requirements

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

**Table 1 – Compositional requirements for datshi**

Sl. No	Parameter	Requirement (% m/m)	Test Methods
1	Maximum milk fat content	4	AOAC 933.05
2	Minimum milk solids-not-fat content	18	-
3	Maximum Water content	52	AOAC 969.19

## 4.4 Organoleptic qualities

### 4.4.1 Flavour

The flavour is bland to mild, typical of a milk product cultured with lactic acid and aroma producing bacteria.

### 4.4.2 Body and texture

The body has a white colour and a granular texture consisting of discrete individual soft curd granules of relatively uniform size.

### 4.4.3 Color and appearance

It shall present a clean, natural white color and should be free from adulterants such as starch, cellulose, flour and banana.

## 5 Food additives & preservatives

The products covered by this Standard shall comply with the maximum limits established in BTS 271: 2020 CODEX STAN 192-1995 *General standard for food additives*.

## 6 Contaminants

The products covered by this standard shall conform to maximum levels for contaminants specified in 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 maximum residue limits for veterinary drug residues and pesticides established in CAC/MRL 2-2015.

### 6.1 Mycotoxins

Datshi 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 (ML), (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 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 Datshi shall conform to limits in *table 3*;

**Table 3 – Microbiological limit**

Sl. No	Microorganism	Requirement	Test method
1	<i>E. coli</i> by MPN	<10 cfu/g	IS 5887 (Part-1) FAO manual of food Quality control, 14/4, Chapter-3
2	Salmonella	Absent /25g	IS 5887 (Part-3)
3	Moulds and yeasts	< 100 cfu/g	IS 5403 FAO manual of food Quality control, 14/4, Chapter-19
4	Total Coliform Count by MPN	< 500 MPN/g	IS 5401 (part-2) FAO manual of food Quality control, 14/4, Chapter-3
5	<i>Staphylococcus aureus</i>	< 1000 cfu/g	IS 5887 (Part-2)
6	<i>Clostridium perfringens</i>	< 100 cfu/g	IS 5887 (Part-4)
7	<i>Listeria monocytogenes</i>	Absent/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 datshi.

## 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*, it should be uniform size varying from 90 to 120 grams per piece.

## 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	Temperature (Below 5° C)
1	Datshi	Refrigerate tightly covered.	2 week



**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.

**BIBLIOGRAPHY**

- [1] CXS 273-1968, Codex Standard for Cottage Cheese.
- [2] CXS 283-1978, Codex General Standard for Cheese.
- [3] BMS-08:2017, Bhutan Mandatory Standard for Local Datshi.
- [4] Food Safety and Standards (Food Product Standards and food Additive) Regulation of India, 2011.
- [5] Test Report on moisture content and Microbial content in Cottage Cheese, National Food Testing Laboratory, BAFRA.
- [6] IS: 2785 – 1979, Specification for Natural Cheese (Hard Variety), Processed Cheese, Processed Cheese Spread and Soft Cheese.

**FOOD AND AGRICULTURE TECHNICAL COMMITTEE (TC 02)**

<i>Organization</i>	<i>Representative(s)</i>
National Dairy Research and Development Centre, Thimphu	Mr. Phuntsho T Norbu (Chairperson)
Bhutan Agriculture and Food Regulatory Authority, Thimphu	Mr. Jamyang Phuntsho
Agriculture and Food Regulatory Authority, Thimphu	Mrs. Gyem Bidha (Alternate)
Bhutan Agro Industries Limited, Thimphu	Mrs. Jigme Wangmo (Alternate)
Bhutan Exporters Association, Phuentsholing	Mr. Dorji Tshering
Bhutan Livestock Development Corporation Limited, Thimphu	Mr. Sithar Dorji
Bhutan Livestock Development Corporation Limited, Thimphu	Mr. Pema Khandu (Alternate)
Department of Agriculture, Ministry of Agriculture and Forests, Thimphu	Mrs. Pema Choden
Department of Agriculture, Ministry of Agriculture and Forests, Thimphu	Mr. Jimba Rabgyel (Alternate)
Department of Agricultural Marketing and Cooperatives, Ministry of Agriculture and Forests, Thimphu	Mr. Dawa Tshering
Department of Agricultural Marketing and Cooperatives, Ministry of Agriculture and Forests, Thimphu	Mr. Tashi Tshering (Alternate)
Department of Industry, Ministry of Economic Affairs, Thimphu	Mr. Tashi Dorji
National Post Harvest Centre, Paro	Mr. Dechen Tshering
Office of Consumer Protection, Ministry of Economic Affairs,	Mr. Jigme Dorji
Office of Consumer Protection, Ministry of Economic Affairs, Thimphu	Mrs. Chencho Zangmo (Alternate)
Bhutan Standards Bureau, Thimphu	Mr. Sonam Phuntsho, Director General (Ex-officio member)

**Member Secretary**  
Phurpa Wangdi  
Standardization Division  
Bhutan Standards Bureau.

**Milk & Milk Products Sub- Committee (TC-02/SC08)**

<i>Organization</i>	<i>Representative(s)</i>
Koufuku International Limited, DHI Company	Mr.Sanjok Biswakaram (Chairperson)
Bhutan Agriculture and Food Regulatory Authority,MOAF,Thimphu	Mr. Passang Wangdi (Member)
National Diary Research & Development Centre,DOL,MOAF,Thimphu	Mrs. Kinley Choki (Member)

**Member Secretary**  
Kesang P Namgay  
Standardization Division  
Bhutan Standards Bureau.