

**CODEX STANDARD FOR COCOA BUTTERS<sup>1</sup>****CODEX STAN 86-1981****1. SCOPE**

This standard applies exclusively to cocoa butter used as ingredient in the manufacture of chocolate and chocolate products.

**2. DESCRIPTION****2.1 Definition of Cocoa Butter**

**Cocoa Butter<sup>2</sup>** is the fat produced from one or more of the following:

Cocoa beans (as defined in Sections 2.1 and 3.1 of the Standard for Cocoa (Cacao) Beans, Cocoa (Cacao) Nib, Cocoa (Cacao) Mass, Cocoa Press Cake and Cocoa Dust (Cocoa Fines), for Use in the Manufacture of Cocoa and Chocolate Products CODEX STAN 141-1983), cocoa nib, cocoa mass, cocoa press cake, expeller press cake or cocoa dust (cocoa fines), by a mechanical process and/or with the aid of permissible solvents. Cocoa butter shall not contain shell fat or germ fat in excess of the proportion in which they occur in the whole bean.

Cocoa butter may be treated as follows:

- (a) filtered, centrifuged;
- (b) degummed, deodorized by steam under vacuum and all other normal methods of deodorization;
- (c) treated with lye or a similar substance normally used for neutralizing;
- (d) treated with compounds normally used for bleaching.

**2.2 Categories of Cocoa Butter**

Cocoa Butter is normally traded under the following categories:

**2.2.1 Press Cocoa Butter<sup>2</sup>**

**Press Cocoa Butter** is the fat which is obtained by pressure from cocoa nib or cocoa mass (cocoa liquor) obtained from cocoa beans as described in Section 2.1 and complying with the Minimum Quality laid down in Section 3.1 of the Standard for Cocoa (Cacao) Beans, Cocoa (Cacao) Nib, Cocoa (Cacao) Mass, Cocoa Press Cake and Cocoa Dust (Cocoa Fines). It may only be treated as

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<sup>1</sup> Formerly CAC/RS 86-1976.

<sup>2</sup> **Note on the Composition of Cocoa Butter for Use in Chocolate**

**Fat** which has been prepared from the raw materials permitted for the manufacture of cocoa butter and by one of the methods of preparation authorized for cocoa butter and with or without one of the treatments authorized for cocoa butter, but which does not comply with all the analytical values laid down for cocoa butter, shall be refined before being added to cocoa butter and may only be added to cocoa butter and only in such amount that the resulting mixture is in compliance with the analytical values for refined cocoa butter.

stated under (a) and (b) of Section 2.1 General Definition of Cocoa Butter.

### 2.2.2 Expeller Cocoa Butter<sup>1</sup>

**Expeller Cocoa Butter** is the fat prepared by the expeller process from cocoa beans singly or in combination with cocoa nib, cocoa mass, cocoa press cake and low fat cocoa press cake, as described respectively in Sections 2.1, 2.2, 2.3 and 2.4 and complying with the Minimum Quality laid down in Section 3.1 of the Standard for Cocoa (Cacao) Beans, Cocoa (Cacao) Nib, Cocoa (Cacao) Mass, Cocoa Press Cake and Cocoa Dust (Cocoa Fines). It may only be treated as stated under (a) and (b) of Section 2.1 above, containing the general definition of cocoa butter. Cocoa butter prepared by the expeller process from other raw materials is not included in the present description.

### 2.2.3 Solvent Extracted Cocoa Butter<sup>1</sup>

**Solvent Extracted Cocoa Butter** is the fat obtained by extraction with permitted solvents from cocoa beans and/or from the other raw materials as described in Section 2 of the Standard for Cocoa (Cacao) Beans, Cocoa (Cacao) Nib, Cocoa (Cacao) Mass, Cocoa Press Cake and Cocoa Dust (Cocoa Fines). Such butter shall have been treated as indicated under (a) and (b) of Section 2.1 above, containing the general definition of cocoa butter.

### 2.2.4 Refined Cocoa Butter<sup>1</sup>

**Refined Cocoa Butter** is the fat obtained by any of the means described in sub-sections 2.2.1, 2.2.2 or 2.2.3 above which has been treated as indicated under (a) and (b) and which has received either or both of the treatments indicated under (c) and (d) of Section 2.1 above, containing the general definition of cocoa butter.

## 3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

### 3.1 Identification and quality values<sup>2</sup>

3.1.1 Organoleptic characteristics for Press Cocoa Butter, Expeller Cocoa Butter, Solvent Extracted Cocoa Butter and Refined Cocoa Butter.

(a) Colour	characteristic of the designed product
(b) Odour and taste	characteristic of the designated product and free from foreign odour and foreign taste

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<sup>1</sup> **Note on the Composition of Cocoa Butter for Use in Chocolate**

**Fat** which has been prepared from the raw materials permitted for the manufacture of cocoa butter and by one of the methods of preparation authorized for cocoa butter and with or without one of the treatments authorized for cocoa butter, but which does not comply with all the analytical values laid down for cocoa butter, shall be refined before being added to cocoa butter and may only be added to cocoa butter and only in such amount that the resulting mixture is in compliance with the analytical values for refined cocoa butter.

<sup>2</sup> This Section is subject to revision in due course when statistical data on fatty acid composition are available as well as data on Blue Value (behenic acid tryptamide content) and Extinction Value at 270 nm (after rinsing with NaOH).

## 3.1.2 Analytical characteristics

Press Cocoa Butter,	) (a) Refractive Index <sup>1</sup> expressed as		1.456-
Expeller Cocoa Butter,	)		1.459
Solvent Extracted	)	$(n_{\frac{40}{D}})$	
Cocoa Butter, Refined	)		
Cocoa Butter	) (b) Melting behaviour (Fincke)	Slip point	30-34°C
	)		
	)	Clear Melting	31-35°C
	)	Point	
	) (c) Free fatty acids expressed as <sup>2</sup>		0.5-1.75
	) % m/m oleic acid		
	)		
	) (d) Saponification value expressed as		188-198
	) mg KOH/g fat <sup>1</sup>		
	)		
	) (e) Iodine value (Wijs)		33-42
Press Cocoa Butter	(f) Unsaponifiable matter (petroleum	not more than	0.35
	ether) expressed as % m/m		
Expeller Cocoa Butter,	) " "	not more than	0.5
Solvent Extracted	)		
Cocoa Butter, Refined	)		
Cocoa Butter	)		

## 4. FOOD ADDITIVES

4.1	Extraction Solvents	Maximum Level in the End Product
	Hexane (62°C - 82°C)	5 mg/kg

5. CONTAMINANTS Maximum Level

5.1	Arsenic (As)	0.5 mg/kg
5.2	Copper (Cu)	0.4 mg/kg
5.3	Lead (Pb)	0.5 mg/kg
5.4	Iron (Fe)	2.0 mg/kg

## 6. HYGIENE

6.1 It is recommended that the products covered by the provisions of this standard be prepared in accordance with the appropriate sections of the Recommended International Code of Practice - General Principles of Food Hygiene (CAC/RCP 1-1969 Rev. 2 (1985), Codex Alimentarius Volume 1).

<sup>1</sup> Exceptionally the upper limit may be exceeded; however cocoa butter for the manufacture of chocolate, composite and flavoured chocolate, filled chocolate and white chocolate must comply with figures in this standard.

<sup>2</sup> For Solvent Extracted Cocoa Butter and Refined Cocoa Butter the free fatty acid values are 0-1.75.

6.2 To the extent possible in good manufacturing practice, the products shall be free from objectionable matter.

6.3 When tested by appropriate methods of sampling and examination, the product shall not contain any substances originating from microorganisms in amounts which may represent a hazard to health.

6.4 When tested by appropriate methods of sampling and analysis, the products shall be free from microorganisms in amounts which may represent a hazard to health.

## 7. LABELLING

In addition to the General Standard for Labelling of Prepackaged Foods (CODEX STAN 1-1985 (Rev. 1-1991), Codex Alimentarius Volume 1) the following apply:

### 7.1 Name of the Product

#### 7.1.1 Press Cocoa Butter

Products described under Section 2.2.1 and complying with the requirements of Sections 3.1.1 and 3.1.2 of the standard shall be designated "**cocoa butter**" or "**press cocoa butter**". If the product has been deodorized by steam and/or vacuum and all other normal methods of deodorization (as indicated in Section 2.1 (b)), the designation may include the term "**deodorized**".

#### 7.1.2 Expeller Cocoa Butter

Products described under Section 2.2.2 and complying with the requirements of Sections 3.1.1 and 3.1.2 of the standard shall be designated "**expeller cocoa butter**". If the product has been deodorized by steam and/or vacuum and all other normal methods of deodorization (as indicated in Section 2.1 (b)), the designation may include the term "**deodorized**".

#### 7.1.3 Solvent Extracted Cocoa Butter

Products described under Section 2.2.3 and complying with the requirements of Sections 3.1.1 and 3.1.2 of the standard shall be designated "**solvent extracted cocoa butter**". Any mixture of solvent extracted cocoa butter with any other category of cocoa butter complying with this standard shall be designated "**Solvent Extracted Cocoa Butter**" except as provided in 7.1.4. If the product has been deodorized by steam and/or vacuum and all other normal methods of deodorization (as indicated in Section 2.1(b)), the designation may include the term "**deodorized**".

#### 7.1.4 Refined Cocoa Butter

Products described under Section 2.2.4 and complying with the requirements of Sections 3.1.1 and 3.1.2 of the standard shall be designated "**refined cocoa butter**". Any mixture of refined cocoa butter with any other category of cocoa butter complying with this standard shall be designated "**Refined Cocoa Butter**". If the product has been deodorized by steam and/or vacuum and all other normal methods of deodorization (as indicated in Section 2.1(b)), the designation may include the term "**deodorized**".

## 7.2 **Bulk Packs**

The information required by sub-sections 7.1 to 7.4 shall either be given on the container or be given in accompanying documents except that the name of the product and the name and address of the manufacturer or packer shall appear on the container. However, the name and address of the manufacturer or packer may be replaced by an identification mark provided that such a mark is clearly identifiable with the accompanying document.

## 8. **METHODS OF ANALYSIS AND SAMPLING**

See Codex Alimentarius Volume 13.