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MS 1118 (2008) (English): MALAYSIAN COCOA BUTTER - SPECIFICATION (FIRST REVISION)
MALAYSIAN COCOA BUTTER - SPECIFICATION (FIRST REVISION)

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Guide to storage of cocoa butter                                     | 5    |
Committee representation

The Industry Standards Committee on Food and Food Products (ISC U) under whose authority this Malaysian Standard was developed, comprises representatives from the following organisations:

- Department of Agriculture, Malaysia
- Department of Standards Malaysia
- Federal Agricultural Marketing Authority
- Federation of Malaysian Manufacturers
- Malaysian Agricultural Research and Development Institute
- Malaysian Association of Standards Users
- Malaysian Institute of Food Technology
- Malaysian Palm Oil Association
- Malaysian Palm Oil Board
- Ministry of Agriculture and Agro-based Industry
- Ministry of Health Malaysia
- Ministry of Science and Technology (National Biotechnology Division)
- Universiti Kebangsaan Malaysia
- Universiti Putra Malaysia

The Technical Committee on Cocoa and Chocolate Products which developed this Malaysian Standard consists of representatives from the following organisations:

- Barry Callebaut Malaysia Sdn Bhd
- Cocoa House Industries Sdn Bhd
- Department of Agriculture, Malaysia
- Guan Chong Cocoa Manufacturer Sdn Bhd
- JB Cocoa Sdn Bhd
- Malaysian Agricultural Research and Development Institute
- Malaysian Cocoa Board
- Malaysian Palm Oil Board
- Ministry of Health Malaysia
- Universiti Kebangsaan Malaysia
- Universiti Putra Malaysia
FOREWORD

This Malaysian Standard was developed by Technical Committee on Cocoa and Chocolate Products under the authority of the Industry Standards Committee on Food and Food Products.

This Malaysian Standard is the first revision of MS 1118, Cocoa butter specification.

Major modifications in this revision are as follows:

a) the definition of cocoa butter has been updated;

b) the previous table 1 (solid fat content of Malaysian cocoa butter) has been removed as requested by industries;

c) the characteristics in previous table 2 (Analytical characteristics of Malaysia cocoa butter) has omitted the data for categories, refractive index and blue value max as per current quality requirement;

d) the requirement for metal tolerance has been tabulated as table 3 (Metal tolerance for Cocoa butter) and the requirements as per current regulation;

e) the labeling and hygiene requirements have been revised and amended according to current regulation;

f) exclusion of Appendix A (Definitions and essential composition of cocoa beans, cocoa nib, cocoa mass and cocoa press cake); and

g) Appendix B (Guide to storage of cocoa butter) has been renamed as Annex A (Guide to storage of cocoa butter).

This Malaysian Standard cancels and replaces MS 1118:1988.

Compliance with a Malaysian Standard does not of itself confer immunity from legal obligations.
0. Introduction

This Malaysian Standard is the improvement of the specification in terms of quality of cocoa butter. With the existence of this standard, manufacturers can conform to a uniform standard of quality for cocoa butter use as ingredient in the manufacture of chocolates and chocolate related products.

1. Scope

This Malaysian Standard specifies the requirements for Malaysian cocoa butter.

2. Normative references

The following normative references are indispensable for the application of this standard. For dated references, only the edition cited applies. For undated references, the latest editions of the normative references (including any amendments) apply.

MS 293, Specification for grading cocoa beans
MS 1119, Method of analysis for Malaysian cocoa butter and Malaysian cocoa powder
MS 1263, Method of sampling of Malaysian cocoa powder and Malaysian cocoa butter
MS 1376, Specification for cocoa mass

Malaysian Food Act 1983 and Food Regulations 1985

3. Definition

For the purpose of this Malaysian Standard, the following definitions apply;

Cocoa butter is the fat obtained from the following: Cocoa beans, cocoa nibs, and cocoa mass, (MS 293 and MS 1376) by mechanical or chemical process.
4. Categories of Malaysian cocoa butter

4.1 Cocoa butter may be produced and known as follows:
   a) untreated;
   b) deodorised;
   c) degummed and deodorised; and
   d) degummed, bleached and deodorised.

4.2 Pure Prime Pressed (PPP) or natural cocoa butter
It is the fat obtained as stated in 4.1 (a).

4.3 Degummed and deodorised PPP Cocoa Butter
It is the fat treated as stated in 4.1 (c).

4.4 Refined PPP Cocoa Butter
It is the fat treated as stated in 4.1 (d).

5. Essential compositions and quality requirements

5.1 The colour, odour and taste of all types of cocoa butter shall be characteristics of the designated product and shall be free from foreign odour and taste.

5.2 The analytical characteristics for Malaysian cocoa butter are shown in Table 1.

Table 1. Analytical characteristics for Malaysian cocoa butter

<table>
<thead>
<tr>
<th>Melting point (Capillary tube - tempered method)</th>
<th>Free fatty acid; % min olein acid, maximum</th>
<th>Saponification value; mg KOH/g fat</th>
<th>Iodine value (W%)</th>
<th>Unsaponifiable matter (petroleum ether); % min, maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Slip melting point</td>
<td>Clear melting point</td>
<td>1.75</td>
<td>188 to 198</td>
<td>32 to 38</td>
</tr>
<tr>
<td>31° to 34 °C</td>
<td>32° to 35 °C</td>
<td></td>
<td></td>
<td>0.6</td>
</tr>
</tbody>
</table>
6. Metal tolerance

The requirements for metal tolerances are described in Table 2.

Table 2. Metal tolerance for cocoa butter

<table>
<thead>
<tr>
<th>Metal</th>
<th>Maximum level (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arsenic (As)</td>
<td>0.5</td>
</tr>
<tr>
<td>Lead (Pb)</td>
<td>0.5</td>
</tr>
<tr>
<td>Mercury (Hg)</td>
<td>0.05</td>
</tr>
</tbody>
</table>

7. Hygiene

7.1 The hygienic practices shall comply with all the relevant statutory requirements or regulations relative to food processing, packaging, handling and hygiene currently enforced in Malaysia (Malaysian Food Act 1983 and Food Regulations 1985).

7.2 As much as possible in accordance to the good manufacturing practice, the products shall be free from objectionable matter.

7.3 When tested by appropriate methods of sampling and examination, the products shall not contain any substances originating from microorganisms in amount, which may represent hazard to health; and ensure the products are free of pathogenic microorganisms.

8. Labelling

8.1 Each container shall be marked legibly and indelibly or a label shall be attached to the container, with the following information:

a) name of the product;
b) name and address of the manufacturer;
c) minimum net weight;
d) code number or marking device indicating month and year of manufacture; and
e) in the case of food produced, prepared or packaged in Malaysia, it shall be in Bahasa Malaysia and may include translation in other languages.

8.2 Net content

The net content shall be declared by weight in the metric or any other system of measurement.
8.3 Bulk packs

The information required by 8.1 and 8.2 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.

9. Storage

Recommendations relating to storage are given as a guide in Annex A.

10. Legal requirements

The product shall in all other aspects comply with the requirements of the legislations currently enforced in Malaysia.

11. Analysis and test report

This activity shall be carried out in accordance with the procedure laid down in MS 1119.

12. Sampling

Representative samples of the product shall be drawn as prescribed in MS 1263: 1992, "Method of sampling for Malaysian cocoa powder and Malaysian cocoa butter.

13. Compliance

Upon testing, when each of the samples is found to conform to the requirements specified in the standard, the lot, batch or consignment from which the samples have been drawn shall be deemed to comply with this standard.

14. Certification mark

Each product, may by arrangement with a recognised certification body, be marked with the certification mark of that body, provided the product conforms to the requirements of this Malaysian Standard.
Annex A
(informative)

Guide to storage of cocoa butter

A1. The optimal conditions for storage are as follows;

a) a low relative humidity of the surrounding air, if possible under 65 %;

b) a temperature not exceeding 25°C, fluctuations in temperature should be avoided;

c) clean, well lit rooms, free of insects, rodents and other vermin;

d) absence of strong smelling foreign odours; and

e) stack at an adequate distance from both walls and floor.
Acknowledgements

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