

CODEX ALIMENTARIUS COMMISSION



Food and Agriculture
Organization of the
United Nations



World Health
Organization

E

Viale delle Terme di Caracalla, 00153 Rome, Italy - Tel: (+39) 06 57051 - E-mail: codex@fao.org - www.codexalimentarius.org

CL 2017/60/OCS-FO
May 2017

TO: Codex Contact Points
Contact Points of international organizations having observer status with Codex

FROM: Secretariat, Codex Alimentarius Commission,
Joint FAO/WHO Food Standards Programme

SUBJECT: **Request for Comments on the proposed draft amendment to the *Standard for Named Vegetable Oils (CODEX STAN 210-1999): Change in the temperature for the analysis of refractive index and apparent density of palm superolein***

DEADLINE: 30 MAY 2018

BACKGROUND:

1. The 25th Session of the Codex Committee for Fats and Oils (CCFO25) considered the proposal by Malaysia contained in [CRD23](#) to amend the *Standard for Named Vegetable Oils (CODEX STAN 210-1999)* to enable the parameters to be determined at 30°C. However, in view of its late availability and the need of some countries for more time to examine the proposal, the Committee agreed to request the Codex Secretariat to issue a CL inviting comment on the proposals presented **in paragraphs 6 and 7 of the Appendix to this CL** for consideration at CCFO26. (See [REP17/FFO](#), Para, 92-93).

REQUEST FOR COMMENTS

2. Codex members and observers are invited to submit comments on the proposal, which is uploaded to the Codex Online Commenting System (OCS): <https://ocs.codexalimentarius.org/>, as per the general guidance below.
3. The comments on the proposed change in the temperature for the analysis of refractive index and apparent density of palm Superolein in the Standard for Named Vegetable Oils (CODEX STAN 210-1999) will be considered at the 26th Session of the CCFO.

GENERAL GUIDANCE FOR THE PROVISION OF COMMENTS

4. Comments should be submitted through the Codex Contact Points of Codex members and observers using the OCS.
5. Contact Points of Codex members and observers may login to the OCS and access the document open for comments by selecting "Enter" in the "My reviews" page, available after login to the system.
6. Contact Points of Codex members and observers organizations are requested to provide proposed changes and relevant comments/justifications on a specific paragraph (under the categories: editorial, substantive, technical and translation) and/or at the document level (general comments).
7. At the end of the commenting period, the comments will be compiled in a relevant working document using the system.
8. Additional guidance on the OCS can be found on the Codex website: <http://www.fao.org/fao-who-codexalimentarius/ocs/en/>.
9. For questions on the OCS, please contact Codex-OCS@fao.org.

PROPOSED DRAFT AMENDMENT TO THE STANDARD FOR NAMED VEGETABLE OILS (CODEX STAN 210-1999): CHANGE IN THE TEMPERATURE FOR THE ANALYSIS OF REFRACTIVE INDEX AND APPARENT DENSITY OF PALM SUPEROLEIN

(Prepared by Malaysia)

INTRODUCTION

1. Palm superolein is defined as the liquid fraction derived from palm oil produced through a specially controlled crystallization process to achieve an iodine value of 60 or higher¹. It is characterized by a set of distinctive fatty acid composition (FAC) and physio-chemical properties that differentiate it from palm olein. The inclusion of palm superolein into the Codex Standard for Named Vegetable Oils (CODEX STAN 210:1999) was agreed at the 18th CCFO² and adopted at the 26th Codex Alimentarius Commission in 2003³.

ISSUE

2. At present, the value of the refractive index (RI) of palm superolein in the Codex Standard for Named Vegetable Oils (CODEX STAN 210-1999) is in the range of 1.463-1.465, determined at an experimental temperature of 40 °C. Recent interruptions to the global trade of palm superolein have occurred in which the RI values of traded palm superolein determined at 40 °C do not fall within the range as specified in the CODEX STAN 210:1999.

3. After a careful revision and cross-referencing of the RI range as stipulated in the CODEX STAN 210-1999 and data from recent analyses on palm superolein samples, current data shows that the determination of RI of palm superolein falls within the values specified in the CODEX STAN 210-1999 only when analysed at the experimental temperature of 30 °C, and not at 40 °C. Table 1 shows the data of RI of 26 palm superolein samples which Malaysia recently analysed at both 30 °C and 40 °C according to the method specified for the determination of RI in the CODEX STAN 210:1999. Similarly, as shown in Table 1, the values analysed for apparent density for palm superolein also fall within the values in the CODEX STAN 210:1999 when analysed at 30 °C.

Table 1: Refractive index and apparent density of superolein samples analysed at 30 °C and 40 °C and comparison with Codex levels

Characteristics	30 °C	40 °C	Codex levels (at 40 °C)
Refractive index	1.463-1.464	1.459-1.460	1.463-1.465
Apparent density, g/mL	0.904-0.907	0.886-0.900	0.897-0.920

4. Recent literature published on the RI values of palm superolein have also shown that the RI values of 32 palm superolein samples which fall within the values specified in the CODEX STAN 210:1999 was analysed at 30°C. Similarly, the values for apparent density of palm superolein in the same publication analysed at 30°C also fall within the values as specified in the CODEX STAN 210:1999, as shown in Table 2:

Table 2: Refractive index of palm superolein in recent literature

Palm superolein	30 °C	Reference
Refractive index	1.463 - 1.464	Gunstone (2011) ⁴
Apparent density (g/mL)	0.9042 – 0.9054	

5. Due to the incorrect temperature specified for the determination of both RI and apparent density in the CODEX STAN 210:1999, this has caused trade difficulties attributed to the RI values not falling within the ranges as specified in the CODEX STAN 210:1999. It is imperative that the correct experimental temperature for the determination of these quality characteristics be specified in the Codex Standard to facilitate the trade of palm superolein and to harmonise national legislation with Codex standards.

¹Codex Standard for Named Vegetable Oils (CODEX STAN 210-1999)

²ALINORM 03/17

³ALINORM 03/41

⁴Gunstone, F. (Ed.). (2011). *Vegetable oils in food technology: composition, properties and uses*. John Wiley & Sons.

PROPOSAL

6. Malaysia submits this proposal with the purpose to change the experimental temperature in the specification for refractive index (RI) and apparent density of palm superolein from 40°C to 30°C in Table 2 in the Appendix to the Codex Standard for Named Vegetable Oils (CODEX STAN 210-1999) to address the current impediment to the trade of palm superolein.

7. The change to the correct experimental temperature for the determination of RI and apparent density of palm superolein will ensure that data resulting from quality analysis of traded palm superolein falls within the current values as specified in the CODEX STAN 210:1999, thus eliminating misinterpretation and incorrect determination of quality specifications for palm superolein.