

Notice Calling for suggestions, views, comments etc from stakeholders within a period of 30 days on the draft notification regarding insertion of new standards for Shea butter and Borneo tallow and inclusion of fatty acid composition for various edible vegetable oils.

F.No.Stds/O&F/Notification(5)/FSSAI-2016. In the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011,

in regulation 2.2, (A) in sub-regulation 2.2.4 relating to Edible fats,

(a) after clause 11 relating to Peanut Butter, the following clause shall be inserted, namely-

“12. Shea butter

(1) Description:

Shea butter means the product obtained by pressing and extraction from shea kernels derived from Shea tree (*Butyrospermum parkii*). It shall be refined to make it fit for human consumption. The refined shea butter may be used as such or fractionated using dry fractionation or solvent fractionation technique to obtain stearin/olein fractions to be suitably used for different food applications. Shea butter shall be free from admixture with other oils and fats and free from adulterants, any foreign matter or added colouring substance. It shall be clear on melting.

It shall conform to the following standards:

Parameters	Shea butter (Unrefined)	Shea butter (Refined)
Refractive Index at 44°C	1.4620 – 1.4650	1.4620 – 1.4650
Iodine Value	30 – 75	30 – 75
Saponification Value	160- 200	160- 200
Unsaponifiable matter	Not more than 19% by wt.	Not more than 10% by wt.
Free Fatty acids (as oleic acid)	Not more than 8%	Not more than 0.25%
Peroxide Value	Not more than 10meq/kg	Not more than 10meq/kg
Moisture	-	Not more than 0.1 %
Flash point (Pensky-Marten closed method)	-	Not less than 250°C

Test for argemone oil shall be negative

(2) Food Additives:

The product may contain food additives permitted in Appendix A of Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011.

(3) Contaminants, Toxins and Residues

The product covered in this standard shall comply with the Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011.

(4) Hygiene

The products shall be prepared and handled in accordance with the guidance provided in the Schedule 4 of the Food Safety and Standards (Licensing and Registration of Food Businesses) Regulations, 2011 and any other such guidance provided from time to time under the provisions of the Food Safety and Standard Act, 2006.

The product shall conform to the microbiological requirement given in Appendix B of the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011.

(5) Labelling

The provisions laid down under Food Safety and Standards (Packaging and Labelling) Regulations, 2011 shall apply.

(6) Methods of Sampling and Analysis

As provided in the relevant Food Safety and Standards Authority of India Manual of Methods of Analysis of Food.

(b) after clause 12 relating to Shea butter, the following clause shall be inserted, namely-

“13. Borneo tallow/ Illipe butter

(1) Description:

Borneo tallow/ Illipe butter means the fat obtained by pressing and extraction from Illipe seeds (*Shorea stenoptera*). Illipe butter shall be free from admixture with other oils and fats and free from adulterants, rancidity, suspended or any foreign matter, separated water, added colouring or flavouring substance, or mineral oil. It shall be clear on melting.

It shall conform to the following standards:

Refractive index at 40°C	1.4560 – 1.4570
Iodine Value	25 – 38
Saponification Value	180- 200
Unsaponifiable matter	Not more than 2.5%
Free Fatty acids (as oleic acid)	Not more than 3 %
Peroxide value	Not more than 10 meq/kg

Test for argemone oil shall be negative

(2) Food Additives:

The product may contain food additives permitted in Appendix A of Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011.

(3) Contaminants, Toxins and Residues

The product covered in this standard shall comply with the Food Safety and Standards (Contaminants, Toxins and Residues) Regulations, 2011.

(4) Hygiene

The products shall be prepared and handled in accordance with the guidance provided in the Schedule 4 of the Food Safety and Standards (Licensing and Registration of Food Businesses) Regulations, 2011 and any other such guidance provided from time to time under the provisions of the Food Safety and Standard Act, 2006.

The product shall conform to the microbiological requirement given in Appendix B of the Food Safety and Standards (Food Products Standards and Food Additives) Regulations, 2011.

(5) Labelling

The provisions laid down under Food Safety and Standards (Packaging and Labelling) Regulations, 2011 shall apply.

(6) Methods of Sampling and Analysis

As provided in the relevant Food Safety and Standards Authority of India Manual of Methods of Analysis of Food.

(B) after sub-regulation 2.2.6 relating to Hydrogenated vegetable oils, the following sub regulation shall be inserted, namely-

2.2.7 The oils and fats covered under the regulation 2.2 shall comply with the fatty acid composition of the respective oils and fats given in the table below-

Table 1: Fatty Acid Composition of vegetable oils as determined by gas liquid chromatography (expressed as percentage of total fatty acids)

Fatty acid	Groundnut Oil	Coconut oil	Cotton-seed oil	Maize oil	Palm oil	Palm kernel oil	Palm olein	Rice bran oil	Safflower seed oil	Safflowerseed oil (high oleic acid)	Soyabean oil
C6:0	ND	ND-0.7	ND	ND	ND	ND-0.8	ND	ND	ND	ND	ND
C8:0	ND	4.6-10.0	ND	ND	ND	2.4-6.2	ND	ND	ND	ND	ND
C10:0	ND	5.0-8.0	ND	ND	ND	2.6-5.0	ND	ND	ND	ND	ND
C12:0	ND-0.1	45.1-53.2	ND-0.2	ND-0.3	ND-0.5	45.0-55.0	0.1-0.5	ND-0.2	ND	ND-0.2	ND-0.1
C14:0	ND-0.1	16.8-21.0	0.6-1.0	ND-0.3	0.5-2.0	14.0-18.0	0.5-1.5	ND-1.0	ND-0.2	ND-0.2	ND-0.2
C16:0	8.0-14.0	7.5-10.2	21.4-26.4	8.6-16.5	39.3-47.5	6.5-10.0	38.0-43.5	14-23	5.3-8.0	3.6-6.0	8.0-13.5
C16:1	ND-0.2	ND	ND-1.2	ND-0.5	ND-0.6	ND-0.2	ND-0.6	ND-0.5	ND-0.2	ND-0.2	ND-0.2
C17:0	ND-0.1	ND	ND-0.1	ND-0.1	ND-0.2	ND	ND-0.2	ND	ND-0.1	ND-0.1	ND-0.1
C17:1	ND-0.1	ND	ND-0.1	ND-0.1	ND	ND	ND-0.1	ND	ND-0.1	ND-0.1	ND-0.1
C18:0	1.0-4.5	2.0-4.0	2.1-3.3	ND-3.3	3.5- 6.0	1.0-3.0	3.5-5.0	0.9-4.0	1.9-2.9	1.5-2.4	2.0-5.4
C18:1	35.0-69	5.0-10.0	14.7-21.7	20.0-42.2	36.0-44.0	12.0-19.0	39.8-46.0	38-48	8.4-21.3	70.0-83.7	17-30
C18:2	12.0-43.0	1.0-2.5	46.7-58.2	34.0-65.6	9.0-12.0	1.0-3.5	10.0-13.5	21-42	67.8-83.2	9.0-19.9	48.0 -59.0
C18:3	ND-0.3	ND-0.2	ND-0.4	ND-2.0	ND-0.5	ND-0.2	ND-0.6	0.1-2.9	ND-0.1	ND-1.2	4.5-11.0
C20:0	1.0-2.0	ND-0.2	0.2-0.5	0.3-1.0	ND-1.0	ND-0.2	ND-0.6	ND-0.9	0.2- 0.4	0.3-0.6	0.1-0.6
C20:1	0.7-1.7	ND-0.2	ND-0.1	0.2-0.6	ND-0.4	ND-0.2	ND-0.4	ND-0.8	0.1- 0.3	0.1-0.5	ND-0.5
C20:2	ND	ND	ND-0.1	ND-0.1	ND	ND	ND	ND	ND	ND	ND-0.1
C22:0	1.5-4.5	ND	ND-0.6	ND-0.5	ND-0.2	ND-0.2	ND-0.2	ND-1.0	ND-1.0	ND-0.4	ND-0.7
C22:1	ND-0.3	ND	ND-0.3	ND-0.3	ND	ND	ND	ND	ND-1.8	ND-0.3	ND-0.3
C22:2	ND	ND	ND-0.1	ND	ND	ND	ND	ND	ND	ND	ND
C24:0	0.5-2.5	ND	ND-0.1	ND-0.5	ND	ND	ND	ND-0.9	ND-0.2	ND-0.3	ND-0.5
C24:1	ND-0.3	ND	ND	ND	ND	ND	ND	ND	ND-0.2	ND-0.3	ND

ND - non detectable, defined as $\leq 0.05\%$

Table 1: Fatty Acid Composition of vegetable oils as determined by gas liquid chromatography (expressed as percentage of total fatty acids) Continued)

Fatty acid	Mustard-seed oil	Rapeseed Oil	Rapeseed oil (low erucic acid)	Sesameseed oil	Sunflower seed oil	Sunlowerseed oil (high oleic acid)	Virgin olive oils	Olive oil (Refined Olive Oil)	Olive Pomace Oil (Refined Olive Pomace Oil)
C6:0	ND	ND	ND	ND	ND	ND	-	-	-
C8:0	ND	ND	ND	ND	ND	ND	-	-	-
C10:0	ND	ND	ND	ND	ND	ND	-	-	-
C12:0	ND	ND	ND	ND	ND-0.1	ND	-	-	-
C14:0	ND-1.0	ND-0.2	ND-0.2	ND-0.1	ND-0.2	ND-0.1	0.0-0.05	0.0-0.05	0.0-0.05
C16:0	0.5-4.5	1.5-6.0	2.5-7.0	7.9-12.0	5.0-7.6	2.6-5.0	7.5-20.0	7.5-20.0	7.5-20.0
C16:1	ND-0.5	ND-3.0	ND-0.6	ND- 0.2	ND-0.3	ND-0.1	0.3-3.5	0.3-3.5	0.3-3.5
C17:0	ND	ND-0.1	ND-0.3	ND-0.2	ND-0.2	ND-0.1	0.0-0.03	0.0-0.03	0.0-0.03
C17:1	ND	ND-0.1	ND-0.3	ND-0.1	ND-0.1	ND-0.1	0.0-0.3	0.0-0.3	0.0-0.3
C18:0	0.5-2.0	0.5-3.1	0.8-3.0	4.5-6.7	2.7-6.5	2.9-6.2	0.5-5.0	0.5-5.0	0.5-5.0
C18:1	8.0-23.0	8.0-60.0	51.0-70.0	34.4-45.5	14.0-39.4	75-90.7	55.0-83.0	55.0-83.0	55.0-83.0
C18:2	10.0-24.0	11.0-23.0	15.0-30.0	36.9-47.9	48.3-74.0	2.1-17	3.5-21.0	3.5-21.0	3.5-21.0
C18:3	6.0-18.0	5.0-13.0	5.0-14.0	0.2-1.0	ND-0.3	ND-0.3	Pending	Pending	Pending
C20:0	ND-1.5	ND-3.0	0.2-1.2	0.3-0.7	0.1-0.5	0.2-0.5	0.0-0.6	0.0-0.6	0.0-0.6
C20:1	5.0-13.0	3.0-15.0	0.1-4.3	ND-0.3	ND-0.3	0.1-0.5	0.0-0.4	0.0-0.4	0.0-0.4
C20:2	ND-1.0	ND-1.0	ND-0.1	ND	ND	ND			
C22:0	0.2-2.5	ND-2.0	ND-0.6	ND-1.1	0.3-1.5	0.5-1.6	0.0-0.2	0.0-0.2	0.0-0.3
C22:1	22.0-50.0	> 2.0-60.0	ND-2.0	ND	ND-0.3	ND-0.3			
C22:2	ND-1.0	ND-2.0	ND-0.1	ND	ND-0.3	ND			
C24:0	ND-0.5	ND-2.0	ND-0.3	ND-0.3	ND-0.5	ND-0.5	0.0-0.2	0.0-0.2	0.0-0.2
C24:1	0.5-2.5	ND-3.0	ND-0.4	ND	ND	ND			

ND - non detectable, defined as $\leq 0.05\%$