NORMATIVE INSTRUCTION – IN NO. 87 OF 15 MARCH 2021

Establishes the list of authorized vegetal species, designations, composition of fatty acids, the maximum acidity values, and the maximum peroxide index values for vegetal oils and fats.

The Collegiate Board of Directors of the Brazilian Health Regulatory Agency, in the use of the attributions vested in it under Article 15, items III and IV, and Article 7, items III and IV of Law no. 9,782 of 26 January 1999, and item VII, paragraphs 1 and 3 of Article 53 of the Internal Regulation approved by Collegiate Board Resolution – RDC no. 255 of 10 December 2018, as decided upon in a meeting held on 11 March 2021, resolves:

Article 1. This Normative Instruction establishes the list of authorized vegetal species, designations, composition of fatty acids, the maximum acidity values, and the maximum peroxide index values for vegetal oils and fats.

Sole paragraph. In a complementary way, this Normative Instruction applies to Collegiate Board Resolution – RDC no. 481 of 15 March 2021, which provides for the health requirements for vegetal oils and fats.

Article 2. Annex I establishes the list of authorized vegetal species for the production of oils and fats, including the common name of the vegetal species, the parts of the vegetal used for extraction, and the scientific name of the vegetal species that originates the oil.

Article 3. Annex II establishes the list of designations and composition of fatty acids from vegetal oils and fats, including fractioned oils and fats.

Paragraph 1. The designations established in Table 1 may be added with expressions related to the obtention process, part of the vegetal used for extraction, or specific characteristic.

Paragraph 2. In the case of raw palm oil or fat, the product may be designated as "*dendê* oil".

Paragraph 3. The compositions of fatty acids referred to in the caption of this article are obtained through gas-liquid chromatography and are expressed as percentages of total fatty acids.

Paragraph 4. Undetectable values of fatty acids are indicated as "ND" and adopted when the quantity of the respective fatty acid is equal to or lower than 0.05%.

Paragraph 5. The confirmation of identity of vegetal oils and fats referred to in the caption if this article may require complementary analyses based on the additional specifications of identity, composition, and other physical-chemical characteristics provided for in the following references:

I – Codex Alimentarius;

II – Brazilian Pharmacopeia;

III – Officially recognized pharmacopeias, in accordance with Collegiate Board Resolution – RDC no. 37 of 6 July 2009;

IV – Food Chemicals Codex – FCC;

V – USP Dietary Supplement Compendium – DSC;

VI – European Food Safety Authority – EFSA; or

VII – European Commission.

Article 4. Annex III establishes the list of maximum acidity values for vegetal oils and fats.

Article 5. Annex IV establishes the list of maximum peroxide index values for vegetal oils and fats.

Article 6. A period of twelve (12) months is hereby established for the adequacy of products already in the market on the date this Normative Instruction comes into force.

Article 7. This Normative Instruction comes into force twelve (12) months after its publication.

ANTONIO BARRA TORRES

Director-President

ANNEX I

LIST OF AUTHORIZED VEGETAL SPECIES FOR THE PRODUCTION OF OILS AND FATS, INCLUDING THE COMMON NAME OF THE VEGETAL SPECIES, THE PARTS OF THE VEGETAL USED FOR EXTRACTION, AND THE SCIENTIFIC NAME OF THE VEGETAL SPECIES THAT ORIGINATES THE OIL.

Common name of the vegetal species	Parts of the vegetal used for extraction	Scientific name of the vegetal species
Avocado	Mesocarp	*Persea americana*
Pumpkin	Seed	*Curcubitaceae*
Cotton	Seed	*Gossypium spp.*
Almond	Seed	*Amygdalus communis L.*
Peanut	Seed	*Arachis hupogaea L.*
Rice	Bran	*Oryza sativa L.*
Hazelnut	Seed	*Corylus avellana L.*
Babassu	Fruit stone	*Orbignya spp*
Borage	Seed	*Borago officinalis L.*
Canola	Seed (low content of erucic acid)	*Brassica napus L.* *Brassica rapa L.* *Brassica juncea L.*
Safflower	Seed	*Carthamus tinctorious L.*
Rapeseed	Seed	*Brassica napus L.* *Brassica rapa L.*

		Brassica juncea L. and *Brassica tournefortii Gouan species.*
Shea	Kernel	*Vitellaria paradoxa, C.F. Gaertn* (synonyms: *Butyrospermum paradoxum, Butyrospermum parkii*)
Brazil nut	Seed	*Bertholletia excelsa*
Chia	Seed	*Salvia hispanica L.*
Coconut	Pulp	*Cocos nucifera L.*
Sesame	Seed	*Sesamum indicum L.*
Sunflower	Seed	*Helianthus annuus L.*
Linseed	Seed	*Linum usitatissimum L.*
Macadamia	Seed	*Macadamia integrifolia*
Corn	Germ	*Zea mays L.*
Mustard	Seed	*Sinapis alba L.* or *Brassica hirta Moench* *Brassica juncea (L.) Czernajew and Cossen* *Brassica nigra (L.) Koch*
Walnut	Seed	*Juglans regia L.*
Olive	Fruit Pomace from the extraction of virgin olive oil	*Olea europaea L.*
Palm	Fresh mesocarp Fruit stone	*Elaeis guineenses*
	Fresh mesocarp	Cruzamento interespecífico *Elaeis oleifera* x *Elaeis guineenses*
Pistachio	Seed	*Pistacia vera L.*
Evening primrose	Seed	*Oenothera biennis L.*
Soy	Seed	*Glycine max (L.) Merr.*
Grape	Seed	*Vitis vinifera L.*

ANNEX II

LIST OF DESIGNATIONS AND COMPOSITION OF FATTY ACIDS FROM VEGETAL OILS AND FATS, INCLUDING FRACTIONED OILS AND FATS.

TABLE 1. VEGETAL OILS AND FATS

Fatty acids	**Designation**						
	Avocado oil	Pumpkin seed oil	Almond oil	Peanut oil	Rice bran oil	Hazelnut oil	Babassu oil
C6:0	–	–	ND	ND	ND	ND	ND

C8:0	–	–	ND	ND	ND	ND	2.6 – 7.3
C10:0	–	–	ND	ND	ND	ND	1.2 – 7.6
C12:0	–	–	ND	ND – 0.1	ND – 0.2	ND	40.0 – 55.0
C14:0	–	0.18 – 0.5	ND – 0.1	ND – 0.1	ND – 1.0	ND – 0.1	11.0 – 27.0
C16:0	5.0 – 25.0	8.0 – 25.4	4.0 – 9.0	5.0 – 14.0	14 – 23	4.2 – 8.9	5.2 – 11.0
C16:1	1.0 – 11.0	0.1 – 0.7	0.2 – 0.8	ND – 0.2	ND – 0.5	ND – 0.5	ND
C17:0	–	ND – 0.2	ND – 0.2	ND – 0.1	ND	ND – 0.1	ND
C17:1	–	–	ND – 0.2	ND – 0.1	ND	ND – 0.1	ND
C18:0	0.4 – 1.0	3.0 – 11.2	ND – 3.0	1.0 – 4.5	0.9 – 4.0	0.8 – 3.2	1.8 – 7.4
C18:1	45.7 – 75.0	17.0 – 44.1	62.0 – 76.0	35.0 – 80	38.0 – 48.0	74.2 – 86.7	9.0 – 20.0
C18:2	6.0 – 20.0	39.7 – 65.0	20.0 – 30.0	4.0 – 43.0	21.0 – 42.0	5.2 – 18.7	1.4 – 6.6
C18:3	0.1 – 2.0	0.1 – 0.9	ND – 0.5	ND – 0.5	0.1 – 2.9	ND – 0.6	ND
C20:0	–	0.3 – 1.0	ND – 0.5	0.7 – 2.0	ND – 0.9	ND – 0.3	ND
C20:1	–	–	ND – 0.3	0.7 – 3.2	ND – 0.8	ND – 0.3	ND
C20:2	–	0.1 – 0.9	ND	ND	ND	ND	ND
C22:0	–	–	ND – 0.2	1.5 – 4.5	ND – 1.0	ND – 0.2	ND
C22:1	–	ND – 0.8	ND – 0.1	ND – 0.6	ND	ND – 0.1	ND
C22:2	–	–	ND	ND	ND	ND	ND
C24:0	–	–	ND – 0.2	0.5 – 2.5	ND – 0.9	ND	ND
C24:1	–	–	ND	ND – 0.3	ND	ND – 0.3	ND

Fatty acids	**Designation**						
	Borage oil	Safflower oil	High-oleic safflower oil	Shea fat or butter	Chia seed oil	Rapeseed oil	Brazil nut oil
C6:0	–	ND	ND	ND	–	ND	–
C8:0	–	ND	ND	ND	–	ND	–
C10:0	–	ND	ND	ND	–	ND	–
C12:0	–	ND	ND – 0.2	ND – 1..0	–	ND	ND – 0.8
C14:0	–	ND – 0.2	ND – 0.2	ND – 0.7	–	ND – 0.2	ND – 0.6
C16:0	8.0 – 11.0	5.3 – 8.0	3.6 – 6.0	2.0 – 10.0	5.0 – 9.0	1.5 – 6.0	12.0 – 16.0
C16:1	–	ND – 0.2	ND – 0.2	ND – 0.3	–	ND – 3.0	ND – 0.3
C17:0	–	ND – 0.1	ND – 0.1	ND	–	ND – 0.1	–

C17:1	–	ND – 0.1	ND – 0.1	ND	–	ND – 0.1	–
C18:0	2.0 – 5.0	1.9 – 2.9	1.5 – 2.4	25 – 50	2.0 – 5.0	0.5 – 3.1	6.0 – 13.0
C18:1	14.0 – 24.0	8.4 – 21.3	70.0 – 83.7	32 – 62	4.0 – 9.0	8.0 – 60.0	24.0 – 48.0
C18:2	34.0 – 42.0	67.8 – 83.2	9.0 – 19.9	1 – 11	17.0 – 22.0	11.0 – 23.0	30.0 – 47.0
C18:3	n–6: 18.0 – 24.0	ND – 0.1	ND – 1.2	1 – 11	n–3 57.0 – 70.0 n–6 ND – 0.4	5.0 – 13.0	ND – 0.2
C20:0	ND – 0.5	0.2 – 0.4	0.3 – 0.6	ND – 3.5	–	ND – 3.0	ND – 1.4
C20:1	2.0 – 6.0	0.1 – 0.3	0.1 – 0.5	ND	–	3.0 – 15.0	ND – 0.12
C20:2	–	ND	ND	ND	–	ND – 1.0	–
C22:0	ND – 0.8	ND – 1.0	ND – 0.4	ND	–	ND – 2.0	ND – 0.2
C22:1	ND – 5.0	ND – 1.8	ND – 0.3	ND	–	2.0 – 60.0	–
C22:2	–	ND	ND	ND	–	ND – 2.0	–
C24:0	–	ND – 0.2	ND – 0.3	ND	–	ND – 2.0	0.1 – 0.2
C24:1	ND – 4.5	ND – 0.2	ND – 0.3	ND	–	ND – 3.0	–

Fatty acids	**Designation**						
	Coconut oil or fat	Sesame oil	Linseed oil	Macadamia oil	Mustard oil	Walnut oil	Palm oil or fat
C6:0	ND – 0.7	ND	ND	–	ND	ND	ND
C8:0	4.6 – 10.0	ND	ND	–	ND	ND	ND
C10:0	5.0 – 8.0	ND	ND	–	ND	ND	ND
C12:0	45.1 – 53.2	ND	ND – 0.3	ND – 0.1	ND	ND	ND – 0.5
C14:0	16.8 – 21.0	ND – 0.1	ND – 0.2	0.3 – 1.0	ND – 1.0	ND	0.5 – 2.0
C16:0	7.5 – 10.2	7.9 – 12.0	4.0 – 11.3	1.3 – 32.3	0.5 – 4.5	6.0 – 8.0	39.3 – 47.5
C16:1	ND	ND – 0.2	ND – 0.5	10.8 – 29.6	ND – 0.5	ND – 0.4	ND – 0.6
C17:0	ND	ND – 0.2	ND – 0.1	–	ND	ND – 0.1	ND – 0.2
C17:1	ND	ND – 0.1	ND – 0.1	–	ND	ND – 0.1	ND
C18:0	2.0 – 4.0	4.5 – 6.7	2.0 – 8.0	1.2 – 7.1	0.5 – 2.0	1.0 – 3.0	3.5 – 6.0
C18:1	5.0 – 10.0	34.4 – 45.5	9.8 – 36.0	45.0 – 84.4	8.0 – 23.0	14.0 – 23.0	36.0 – 44.0
C18:2	1.0 – 2.5	36.9 – 47.9	8.3 – 30.0	1.0 – 13.2	10.0 – 24.0	54.0 – 65.0	9.0 – 12.0

C18:3	ND – 0.2	0.2 – 1.0	43.8 – 70.0	3.8 – 8.2	6.0 – 18.0	9.0 – 15.4	ND – 0.5
C20:0	ND – 0.2	0.3 – 0.7	ND – 1.0	1.8 – 4.4	ND – 1.5	ND – 0.3	ND – 1.0
C20:1	ND – 0.2	ND – 0.3	ND – 1.2	1.9 – 3.6	5.0 – 13.0	ND – 0.3	ND – 0.4
C20:2	ND	ND	ND	–	ND – 1.0	ND	ND
C22:0	ND	ND – 1.1	ND – 0.5	1.2 – 1.3	0.2 –2.5	ND – 0.2	ND – 0.2
C22:1	ND	ND	ND – 1.2	0.3 – 0.4	22.0 – 50.0	ND	ND
C22:2	ND	ND	ND	–	ND – 1.0	ND	ND
C24:0	ND	ND – 0.3	ND – 0.3	0.4 – 0.7	ND – 0.5	ND	ND
C24:1	ND	ND	ND	–	0.5 – 2.5	ND	ND

Fatty acids	**Designation**				
	High-oleic palm oil or fat	Palm kernel oil or fat	Pistachio oil	Evening primrose oil	Grape seed oil
C6:0	ND	ND – 0.8	ND	–	ND
C8:0	ND	2.4 – 6.2	ND	–	ND
C10:0	ND	2.6 – 5.0	ND	–	ND
C12:0	ND – 0.6	45.0 – 55.0	ND	–	ND
C14:0	ND – 0.8	14.0 – 18.0	ND – 0.6	–	ND – 0.3
C16:0	23.0 – 38.0	6.5 – 10.0	8.0 – 13.0	4.0 – 10.0	5.5 – 11.0
C16:1	ND – 0.8	ND – 0.2	ND – 0.2	–	ND – 1.2
C17:0	ND – 0.2	ND	ND – 0.1	–	ND – 0.2
C17:1	ND	ND	ND – 0.1	–	ND – 0.1
C18:0	1.5 – 4.5	1.0 – 3.0	0.5 – 3.5	1.0 – 4.0	3.0 – 6.5
C18:1	48.0 – 60.0	12.0 – 19.0	50.0 – 70.0	5.0 – 14.0	12.0 – 28.0
C18:2	9.0 – 17.0	1.0 – 3.5	8.0 – 34.0	65.0 – 85.0	58.0 – 78.0
C18:3	ND – 0.6	ND – 0.2	0.1 – 1.0	7.0 – 14.0	ND – 1.0
C20:0	ND – 0.4	ND – 0.2	ND – 0.3	–	ND – 1.0
C20:1	ND – 0.2	ND – 0.2	ND – 0.6	–	ND – 0.3
C20:2	ND –0.5	ND	ND	–	ND
C22:0	ND – 0.3	ND – 0.2	ND	–	ND – 0.5
C22:1	ND	ND	ND	–	ND – 0.3
C22:2	ND	ND	ND	–	ND
C24:0	ND – 0.2	ND	ND	–	ND – 0.4
C24:1	ND	ND	ND	–	ND

TABLE 2. FRACTIONED OILS AND FATS

Designation	Palm stearin	Palm olein	Super palm olein	Palm kernel stearin	Palm kernel olein	Medium-chain triglycerides
Definition	Fraction with a high melting point derived from palm oil fractioning	Liquid fraction derived from palm oil fractioning	Liquid fraction derived from palm oil that reaches iodine level of 60 or higher	Solid fraction derived from palm kernel fractioning	Liquid fraction derived from palm kernel fractioning	Mixture of triglycerides of saturated fatty acids, specially caprylic and capric acids derived from the fat obtained from coconut or palm endosperm
Fatty acids						
C6:0	ND	ND	ND	ND – 0.2	ND – 0.7	ND – 0.2
C8:0	ND	ND	ND	1.3 – 3.0	2.9 – 6.3	50.0 – 80.0
C10:0	ND	ND	ND	2.4 – 3.3	2.7 – 4.5	20.0 – 50.0
C12:0	0.1 – 0.5	0.1 – 0.5	0.1 – 0.5	52.0 – 59.7	39.7 – 47.0	ND – 3.0
C14:0	1.0 – 2.0	0.5 – 1.5	0.5 – 1.5	20.0 – 25.0	11.5 – 15.5	ND – 1.0
C16:0	48.0 – 74.0	38.0 – 43.5	30.0 – 39.0	6.7 – 10.0	6.2 – 10.6	Fatty acids greater than C16:0 ND – 1.0
C16:1	ND – 0.2	ND – 0.6	ND – 0.5	ND	ND – 0.1	–
C17:0	ND – 0.2	ND – 0.2	ND – 0.1	ND	ND	–
C17:1	ND – 0.1	ND – 0.1	ND	ND	ND	–
C18:0	3.9 – 6.0	3.5 – 5.0	2.8 – 4.5	1.0 – 3.0	1.7 – 3.0	–
C18:1	15.5 – 36.0	39.8 – 46.0	43.0 – 49.5	4.1 – 8.0	14.4 – 24.6	–
C18:2	3.0 – 10.0	10.0 – 13.5	10.5 – 15.0	0.5 – 1.5	2.4 – 4.3	–
C18:3	ND – 0.5	ND – 0.6	0.2 – 1.0	ND – 0.1	ND – 0.3	–
C20:0	ND – 1.0	ND – 0.6	ND – 0.4	ND – 0.5	ND – 0.5	–
C20:1	ND – 0.4	ND – 0.4	ND – 0.2	ND – 0.1	ND – 0.2	–
C20:2	ND	ND	ND	ND	ND	–
C22:0	ND – 0.2	ND – 0.2	ND – 0.2	ND	ND	–
C22:1	ND	ND	ND	ND	ND	–
C22:2	ND	ND	ND	ND	ND	–
C24:0	ND	ND	ND	ND	ND	–
C24:1	ND	ND	ND	ND	ND	–

ANNEX III

LIST OF MAXIMUM ACIDITY VALUES FOR VEGETAL OILS AND FATS.

Type of oil or fat	Maximum acidity value
Refined oils and fats	0.6 mg KOH/g
Cold-pressed, unrefined oils	4.0 mg KOH/g
Virgin palm oil	10.0 mg KOH/g

ANNEX IV

LIST OF MAXIMUM PEROXIDE INDEX VALUES FOR VEGETAL OILS AND FATS.

Type of oil or fat	Maximum peroxide index values
Refined oils and fats	10 meq/kg
Cold-pressed, unrefined oils	15 meq/kg