APPENDIX VII

PROPOSED DRAFT AMENDMENT/REVISION OF THE STANDARD FOR NAMED VEGETABLE OILS (CXS 210-1999): INCLUSION OF SACHA INCHI OIL
(For Adoption at Step 5/8)

2 DESCRIPTION

2.1 Product definitions

Sacha inchi oil is derived from the seeds of sacha inchi (*Plukenetia volubilis* L.).

3. ESSENTIAL COMPOSITION AND QUALITY FACTORS

3.1 GLC ranges of fatty acid composition (expressed as percentages)

TABLE 1: Fatty acid composition of sacha inchi oil as determined by gas liquid chromatography from authentic samples (expressed as percentage of total fatty acids) (see Section 3.1 of the Standard)

Fatty acid	Sacha Inchi oil
C6:0	ND
C8:0	ND
C10:0	ND
C12:0	ND
C14:0	ND
C16:0	3.6 – 4.8
C16:1	ND – 0.1
C17:0	ND – 0.1
C17:1	ND
C18:0	2.6 – 4.0
C18:1	6.0 – 11.7
C18:2	32.0 – 43.4
C18:3	36.2 – 50.0
C20:0	ND – 0.1~~0~~
C20:1	ND – 0.4
C20:2	ND – 0.1
C22:0	ND – 0.1
C22:1	ND – 0.1
C22:2	ND
C24:0	ND
C24:1	ND

ND - Non detectable, defined as ≤ 0.05 %

APPENDIX TO CXS 210-1999: OTHER QUALITY AND COMPOSITION FACTORS

3. CHEMICAL AND PHYSICAL CHARACTERISTICS

Chemical and Physical Characteristics are given in Table 2.

TABLE 2 - Chemical and physical characteristics of crude sacha inchi oils

Parameter	Sacha inchi oil
Relative density (xºC/water at 20 ºC)	0.920 – 0.930 x=20 ºC
Refractive index (ND 40 ºC)	1.478 – 1.482
Saponification value (mg KOH/g oil)	185 – 196
Iodine value	182 – 205
Unsaponifiable matter (g/kg)	≤ 5

4 IDENTITY CHARACTERISTICS

Levels of desmethylsterols in vegetable oils as a percentage of total sterols are given in Table 3.

TABLE 3 - Levels of desmethylsterols in crude sacha inchi oils from authentic samples as a percentage of total sterols

	Sacha Inchi oil
Cholesterol	ND – 1.0
Brassicasterol	ND – 0.1
Campesterol	6.6 – 7.8
Stigmasterol	23.4 – 27.0
Beta-sitosterol	51.6 – 56.9
Delta-5avenasterol	4.3 – 8.7
Delta-7stigmastenol	ND – 0.3
Delta-7avenasterol	ND – 0.7
Others	ND
Total sterols (mg/kg)	2080 – 2480

ND - Non-detectable, defined as ≤ 0,05 %

TABLE 4 - Levels of tocopherols and tocotrienols in crude sacha inchi oils from authentic samples (mg/kg)

	Sacha inchi oil
Alpha-tocopherol	3.0 – 7.0
Beta-tocopherol	ND – 3.0
Gamma-tocopherol	1040 – 1370
Delta-tocopherol	640 – 860
Alpha-tocotrienol	ND
Gamma-tocotrienol	ND
Delta-tocotrienol	ND
Total (mg/kg)	1683 – 2240

ND - Non-detectable.