

**Product Specification –“Bunge PRO Cuisine F1”**

<b>Name of the product:</b>	Frying oil blend “Bunge PRO Cuisine F1”
<b>Legal name:</b>	Sunflower frying oil
<b>Product description :</b>	Chemically refined sunflower oil obtained from sunflower seeds by pressing or by pressing and extraction. The oil is refined, bleached, winterized and deodorized. It contains PDMS antifoaming agent.
<b>Producer name and address:</b>	Private Joint Stock Company with Foreign Investments “Dnipropetrovsk Oil Extraction Plant”. Legal address and production capacity address: Kniazya Yaroslava Mudrogo Str., 46, Dnipro, 49000, Ukraine, tel. +380(562) 38 72 10, www.oleina.com
<b>Origin</b>	UKRAINE, wholly crushed and refined in DOEP.
<b>Distributor name and address:</b>	Produced by order of SE Suntrade, Kyiv, ID code 25394566.
<b>Ingredients :</b>	Refined sunflower oil ,antifoaming agent (E900).

**Sensory characteristics**

Appearance, colour	liquid, light yellow, clear & transparent at 20°C
Taste	neutral or very slight sunflowerseed taste, free from any foreign taste
Smell	neutral or very slight sunflowerseed smell, free from any foreign smell

**Chemical and physical properties**

Characteristics	unit	Typical values	Limit values	
Free Fatty Acids (FFA)	%	0,06	max 0,1	ISO 660
Moisture and volatile matter content	%	0,02	max 0,05	ISO 8534
Lovibond colour (5 1/4" cell)	Lovibond unit	0,8 R / 3,8 Y	max. 1,5R / 12Y	ISO 27608
Impurities content	%	<0,01	max 0,03	ISO 663
Phosphorus content	ppm	3,0	max 5,0	ISO 10540-1
Wax and wax-like sub-es	ppm	Absence	20,0	ISO/TS 23647
Soap content	ppm	<1,0	max 5,0	Wolff MTLB 007
Peroxide value ( at plant bottling)	meq O <sub>2</sub> /kg	<1,0	max 2,0	ISO 3960
Trans fatty acid	%	0,3	max 1,0	ISO 15304
Solvent residue(hexaine)	ppm	Absence	1,0	ISO 9832
Relative density at 20 °C	g/cm <sup>3</sup>	0,919-0,920	0,918-0,923	ISO 6883
Iodine Value	g I <sub>2</sub> /100 g	130,0	118-141	ISO 3961
Saponification Value	KOH mg/g	190,0	188-194	ISO 3657
Unsaponifiable Matter	%	<1,0	<1,5	ISO 3596
Refractive Index (on 40 degree)	RI	1,467	1,461-1,468	ISO 6320
Vitamine E(Alfa-tocopherol)	mg / kg	600	min 400	ISO 9937

**Fatty acid profile**

	unit	Typical values	Limit values	
C14:0 myristic	%	0,1	ND-0.2	ISO 15304
C16:0 palmitic	%	6,4	5.0-7.6	ISO 15304
C16:1 palmitoleic	%	0,2	ND-0.3	ISO 15304
C18:0 stearic	%	3,1	2.7-6.5	ISO 15304
C18:1 oleic	%	29,6	14,0-39,4	ISO 15304
C18:2 linoleic	%	59,2	48,3-74,0	ISO 15304
C18:3 linolenic	%	0,1	ND-0.3	ISO 15304
C20:0 arachidic	%	0,2	0.1-0.5	ISO 15304
C20:1 gadoleic	%	0,1	ND-0.3	ISO 15304
C22:0 behenic	%	0,6	0.3-1.5	ISO 15304
C22:1 erucic	%	0,1	ND-0.3	ISO 15304
C24:0 lignoceric	%	0,2	ND-0.5	ISO 15304

**Microbiological values**

Not detected for this kind of oil


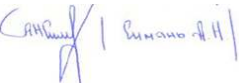
**Aditives**

Antifoaming agent (E900) sufficient amount to protect the oil during frying

**Contaminants, undesirable substances**

Characteristics	unit	Typical values	Limit values	Method
Benzo(a)pyrene (ppb)	ppb	<1	2,0	ISO 15302
sum. PAH (4)	ppb	<2	10,0	HPLC/FLD
Dioxins (PCDD+PCDF)	pg/g	0,16	<0.75	(HRGCMS/HRMS) / external lab

Sum of dioxins and dl PCBs	pg/g	0,27	<1.25	(HRGCMS/HRMS) / external lab
Sum of non-dl PCBs( ICES-6)	ng/g	1,2	max.40	(HRGCMS/HRMS) / external lab
3MCPD	mg/kg	0,2	max.1,25	AOCS Cd29b-13
GE (glycidyl esters)	ppm	0,16	max.1	AOCS Cd29b-13
Mineral oil ( C10-C56)	ppm	< 10,0	50,0	LC-GC-FID / external lab
Copper (Cu)	ppm	<0,02	max.0,1	ICP
Iron (Fe)	ppm	0,1	max. 0,5	ICP
Lead ( Pb)	ppm	<0,05	max. 0,1	ICP
Cadmium ( Cd)	ppm	<0,02	max. 0,02	ICP
Mercury (Hg)	ppm	< 0,01	max. 0,02	ICP
Arsenic (As)	ppm	< 0,02	max. 0,05	ICP
Cs-137 (Cesium - 137)	Bc/kg	4,0	100,0	E-gamma-SPEKT-LEBM-01 :
Sr-90 (Strontium – 90)	Bc/kg	1,0	30,0	E-gamma-SPEKT-LEBM-01 :
Micotoxins and pesticide residues limit according to valid EU Reg.				
<b>GMO statement:</b>	The product is not the subject to GM labelling requirements as laid down in Reg 1829/2003 and 1830/2003			
<b>Allergens ( 1169/2011/EU Reg, Annex II. ):</b>				Yes / No
Peanuts and products thereof				No
Crustaceans and products thereof				No
Fish and products thereof				No
Eggs and products thereof				No
Nuts and products thereof (Walnuts, Brazil nuts, cashew nuts, pecan, hazelnuts, pistachio,				No
Milk and products thereof				No
Soybean and products thereof				No
Cereals containing gluten and products thereof (Wheat, rye, barley, oats, spelt, kamut or				No
Sulphur dioxide and Sulphites ( > 10 mg/kg)				No
Celery and products thereof				No
Sesame and products thereof				No
Mustard and products thereof				No
Lupin and products thereof				No
Molluscs and products thereof				No
<b>Nutritional data per 100 g of product</b>				
	<b>unit</b>	<b>100 g</b>	<b>1 portion (10g)</b>	
Energy value	kJ/kcal	3700/900	370/90	
Protein	g	0	0	
Carbohydrate	g	0	0	
Sugars	g	0	0	
Fat	g	100	10	
saturated fatty acids	g	11	1,1	
mono-unsaturated FA	g	29	2,9	
poly-unsaturated FA	g	60	6,0	
of which -omega-3	g	0,1	0	
-omega-6	g	60	6,0	
trans fatty acids (*)	g	< 1,0	< 0,1	
Salt	g	0	0	
<b>Packaging information for bottling</b>				
Primary packaging:	PET bottle + PE cap			
Storage & transport requirem	Protect from direct sunlight, store at 0-30°C temperature.			
Shelf life	Shelf life is 24 months at the appropriate storage circumstances.			
Traceability data	See the prod. date, exp.date and batch number on the bottle.			
Application	Bunge Pro Cuisine F1 frying oil offers you 30 hours fry life, which is longer than that for average sunflower oil. Contains Omega-6 fatty acids. No foaming while frying due to the antifoaming agent.Fry life is an expected range of hours that an oil will deliver fried foods of same quality.Recommended maximum temperature for frying: 180°C; 225°C smoke point.			
<b>Packaging information for bulk</b>				
Primary packaging:	Empty and clean stainless steel tanks or containers, flexy tank.			
Storage & transport requirem	Empty and clean stainless steel tanks or containers (for food stuff only), keep away from direct sunlight. Store preferably in nitrogen gas saturated tank at 0-30°C.			
Shelf life	Shelf life is 12 months at the appropriate storage circumstances.			
Traceability data	Batch number and loading date is registered on the CoA			
Application	Bunge Pro Cuisine F1 frying oil offers you 30 hours fry life, which is longer than that for average sunflower oil. Contains Omega-6 fatty acids. No foaming while frying due to the antifoaming agent.Fry life is an expected range of hours that an oil will deliver fried foods of same quality.Recommended maximum temperature for frying: 180°C; 225°C smoke point			

Approved by:	QC manager	Solomonova M.A.	
	QA manager	Siman A.N	
	Head of laboratory	Neklesa I.N	