



CERTIFICATE

Goods: Sunflower Oil NINA
produced by FARAVARDEHAY ROGHANIE IRAN CO., Tehran, I.R. Iran

Packing: 4 PET bottles (each one litre) in a plastic bag sealed with lead
Batch / lot (No /identification): T7-3-1641
Produced 12.10.85
Expire: 12.4.87

Sampled: by G.Q.S Global Quality Services at producer's factory in S.S.E.Z. on 10.03.2007
as per sampling protocol of the same date

The laboratory reported the following test results:

Sensory Analysis

JJF1R Sensory Analysis
Method: DGF C-II 1 (97), Sensory Analysis
Number of tasters
3

Odour
characteristical, almost neutral

Appearance
Clear, pale yellow oil

Taste
characteristical, almost neutral

Physical-chemical Analysis

J7112	moisture and volatile matter content		
Method:	ISO 662, gravimetric		
	moisture and volatile matter content	0.16	%
J7087	Insoluble impurities content		
Method:	ISO 663, gravimetric		
	Insoluble impurities content	< 0.01	%
JJ00J	Fatty acid profile		
Method:	ISO 5508 / 5509, GC-FID		
	C 14:0 (Myristic acid)	0.1	%
	C 16:0 (Palmitic acid)	6.2	%
	C 16:1 (Palmitoleic acid) + isomers	0.1	%
	C 18:0 (Stearic acid)	3.5	%
	C 18:1-9 (Oleic acid)	29.7	%
	C 18:1-11 (Vaccenic acid)	0.9	%
	C 18:2 (trans/cis)	0.4	%



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C 18:2 (Linoleic Acid)	56.6	%
C 20:0 (Arachidic acid)	0.3	%
C 20:1 (Eicosenoic acid) + isomers	0.3	%
C 18:3 (Linolenic acid 9,12,15 alpha)	0.6	%
C 22:0 (Behenic acid)	0.7	%
C 24:0 (Lignoceric acid)	0.3	%
C 24:1 (Tetracosenoic acid) + isomers	0.1	%
saturated fatty acids total	11.1	%
mono-unsaturated fatty acids total	31.1	%
poly-unsaturated fatty acids total	57.2	%
Trans-fatty acids (% in total fat)	0.4	%
others	0.2	%
J7068 Iodine value		
Method: ISO 3961, titrimetrical		
Iodine value	128.8	
J7084 Acid value		
Method: ISO 660 Method 1, titrimetry		
Acid value (mg KOH/g)	0.07	mg KOH/g
J7077 Peroxide value		
Method: EN ISO 3960, titrimetry		
Peroxide number	2.6	meqO2/kg
JJ00C Tocopherole		
Method: DGF F-II 4a		
Alpha-Tocopherol	413	mg/kg
Beta-Tocopherol	14	mg/kg
Gamma-Tocopherol	23	mg/kg
Delta-Tocopherol	< 2	* mg/kg
Tocopherol total	449	mg/kg
JJ03E Polycyclic aromatic hydrocarbons (PAH)		
Method: Internal Method, GC-MS		
Benzo(a)anthracene	< 0.5	* µg/kg
Chrysene/Triphenyle	0.60	µg/kg
Benzo(b)fluoranthene	2.0	µg/kg
Benzo(kj)fluoranthene	0.90	µg/kg
Benzo(a)pyrene	1.1	µg/kg
Indeno(1,2,3-cd)pyrene	1.3	µg/kg
Dibenzo(a,h)anthracene	< 0.5	* µg/kg
Benzo(ghi)perylene	1.3	µg/kg
Dibenzo(a,l)pyrene	0.5	µg/kg
Dibenzo(a,i)pyrene	< 0.5	* µg/kg
Dibenzo(a,h)pyrene	< 0.5	* µg/kg
Dibenzo(a,e)pyrene	< 0.5	* µg/kg
Cyclopenta(c,d)pyrene	< 0.5	* µg/kg



DAP-ZE-3626.00

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5-Methylchrysene	< 0.5	* µg/kg
S0401 Organochlorine Pesticides		
Method: LMBG L00.00-23, GC-ECD		
Organochlorine pesticides		Not Detected
S04403 Organophosphorus Pesticides		
Method: LMBG L00.00-34, GC-FPD		
Organophosphorus pesticides		Not Detected
S0402 Pyrethroids		
Method: LMBG L00.00-34, GC-ECD		
Pyrethroids pesticides		Not Detected

* = Below indicated quantification level

JUDGEMENT:

On base of above mentioned results goods of the same quality as these samples are of merchantable quality and fit for human consumption.

Besides the sample is in line with the national and European guidelines (EU-regulation 208/2005 for Polycyclic Aromatic Hydrocarbons, § 2 (2) of the German Maximum Residue Level Regulation (Rückstands-Höchstmengenverordnung, RHmV) for Pesticides, 'Deutsche Leitsätze für Speiseöle und Speisefette' for sensory and the other chemical parameters.

Hamburg, 23.04.2007
Ref.-No. 2007-088


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The results of examination refer exclusively to the checked samples. Duplicates - even in parts - must be authorized by Luxcontrol GmbH in written form.



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