

TESTING REPORT No.: D72 1662

Name & Address of Customer	Biorafinéria SK, a.s. Hlavna 1961 038 52 Sucany, Slovakia
Contract / Order No.	Order No.: E/0205
Sample identification	Methyl ester of soya oil
Internal Code of Sample	3HD720 - 1662
Provider of Sampling	Customer
Date of Sample Receiving	May 10, 2007
Object of Testing	FAME
Deviations from Testing Methods	-
Date of Testing	May 15 – May 22, 2007
Note: Uncertainties are reported in % from determined value (test result)	

TESTING RESULTS

Testing Object Property	Testing Method	Unit	Determined Value	Uncert. 2 u _c
Ester content	EN 14103	% (m/m)	99,7	2,5 %
Density at 15 °C	EN ISO 12185	kg/m ³	885,2	0,1 %
Viscosity at 40 °C	EN ISO 3104	mm ² /s	4,116	1,5 %
Flash point	EN ISO 2719	°C	160	5 %
Sulfur content	EN ISO 20846	mg/kg	1,9	10 %
Carbon residue	EN ISO 10370	% (m/m)	0,013	20 %
Sulfated ash content	ISO 3987	% (m/m)	0,0014	20 %
Water content	EN ISO 12937	mg/kg	358	10 %
Total contamination	EN 12662	mg/kg	7,77	20 %
Copper strip corrosion (3 h at 50 °C)	EN ISO 2160	Rating	Class 1 a	
Oxidation stability, 110 °C	EN 14122	Hours	5,4	10 %
Acid value	EN 14104	mg KOH/g	0,032	20 %
Iodine value	EN 14111	g I/100 g	129	2 %
Linolenic acid methyl ester	EN 14103	% (m/m)	6,6	1,5 %
Methanol content	EN 14110	% (m/m)	0,004	13,4 %
Monoglyceride content	EN 14105	% (m/m)	0,59	24 %
Diglyceride content	EN 14105	% (m/m)	0,34	20 %
Triglyceride content	EN 14105	% (m/m)	0,03	25 %
Free glycerol	EN 14105	% (m/m)	0,005	13 %
Total glycerol	EN 14105	% (m/m)	0,209	
Group I metals (Na+K)	EN 14108 EN 14109	mg/kg	1,01	20 %

Testing Object Property	Testing Method	Unit	Determined Value	Uncert. 2 u _C
Sodium content	EN 14108	mg/kg	0,92	20 %
Potassium content	EN 14109	mg/kg	0,09	20 %
Group II metals (Ca+Mg)	EN 14538 modif.	mg/kg	0,74	20 %
Magnesium content	EN 14538 modif.	mg/kg	0,31	20 %
Calcium content	EN 14538 modif.	mg/kg	0,43	20 %
Phosphorus content	ASTM D 3231 @	mg/kg	0,27	20 %
CFFP	EN 116	°C	- 3	7 %

Test(s) carried out by: Dipl. – Ing. I. Chovancová
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Testing results verified by: Dipl.- Ing. Ľudmila Joríková

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Date of Testing Report Issue: May 23, 2007

