

Analytical services for edible oils

status: June 2026

1. Quality

code	description	technology	LOQ
77001	K values (K ₂₃₂ , K ₂₇₀ , ΔK) ^{a)}	Spectrophotometry	K ₂₃₂ : 0,1 K ₂₇₀ : 0,1 ΔK: 0,01
77008	Free fatty acids ^{a)} Acid value, free fatty acids [FFA] (calculated as oleic, lauric and palmitic acid)	Titration	Acid value: 0,2 mg KOH/g, FFA calculated as oleic, lauric and palmitic acid: 0,1 % respectively
77011	Peroxide value ^{a)}	Potentiometry	0,1 meqO ₂ /kg
46090	Total polyphenols in olive oil (according to Folin-Ciocalteu) ^{a)}	Spectrophotometry	125 mg/kg
77003	Alkyl esters and wax content in olive oil ^{aU)} sum of fatty acid ethyl esters FAEE; sum of waxes (C42 + C44 + C46)	LC-GC-FID	FAEE: 10 mg/kg; sum of waxes: 20 mg/kg
77020	Fatty acid profile (incl. trans fatty acids) includes 56 parameters ^{2) aU)}	GC-FID	0,03 g/100 g fat content
77027	3-MCPD and glycidyl fatty acid esters ^{aU)} 3-MCPD and glycidyl fatty acid esters determined as 3-MCPD; 3 MCPD ester (calc. as free 3-MCPD); Glycidyl fatty acid ester (calc. as free Glycidol)	GC-MS	0,1 mg/kg fat content
77021	Sensory analysis (panel test) of virgin olive oil (organoleptics) ^{aU) 1)}	Evaluation by IOC-recognized panel	---

2. NMR- analytics (authenticity/adulteration)

code	description	explanation
570	Olive oil ^{a)} specific check for foreign oils: - soy oil - sunflower oil - rape seed oil	1. Fatty acid profile <ul style="list-style-type: none"> • Palmitic acid (C16:0, %) • Stearic acid (18:0, %) • Oleic acid (C18:1, %) • Linoleic acid (C18:2, %) • Linolenic acid (C18:3, %) 2. Quality parameters, Authenticity <ul style="list-style-type: none"> • Phytosterol profile (qualitative) • Signs for oxidation • Indication for a mixture with foreign vegetable oils
571	Pumpkin seed oil ^{a)} specific check for foreign oils: - soy oil - sunflower oil - rape seed oil	1. Quality parameters (Fatty acids) <ul style="list-style-type: none"> • Palmitic acid (C16:0, %) • Stearic acid (18:0, %) • Oleic acid (C18:1, %) • Linoleic acid (C18:2, %) • Linolenic acid (C18:3, %) 2. Quality parameters, Authenticity <ul style="list-style-type: none"> • Phytosterol profile (qualitative)

Analytical services for edible oils

status: June 2026

Page 2 of 3

		<ul style="list-style-type: none"> • Signs for oxidation • Indication for a mixture with foreign vegetable oils
572	Plant oil (sunflower, rape seed, line seed, sesame, coconut, argan, hazelnut etc.) ^{a)}	<p>1. Quality parameters (Fatty acids)</p> <ul style="list-style-type: none"> • Palmitic acid (C16:0, %) • Stearic acid (18:0, %) • Oleic acid (C18:1, %) • Linoleic acid (C18:2, %) • Linolenic acid (C18:3, %) <p>2. Quality parameters, Authenticity</p> <ul style="list-style-type: none"> • Phytosterol profile (qualitative) • Signs for oxidation • Indication for a mixture with foreign vegetable oils

3. residues and contaminants

code	description	technology	LOQ
512	Pesticides XXL (>700 substances) ^{aU) 2)}	GC-MS/MS, LC-MS/MS	0,01 mg/kg
46037	Polycyclic aromatic hydrocarbons (PAHs) ^{aU)} (16 substances, EPA-method) Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Chrysene, 5-Methylchrysene, Benzo(ghi)perylene, Benzo(j)fluoranthene, Benzo(k)fluoranthene, Benzo(c)fluorene, Cyclopenta(c,d)pyrene, Dibenzo(a,h)anthracene, Dibenzo(a,e)pyrene, Dibenzo(a,h)pyrene, Dibenzo(a,i)pyrene, Dibenzo(a,l)pyrene, Indeno(1,2,3-cd)pyrene	GC-MS	0,1 µg/kg; 0,3 µg/kg Naphthalene
77004	Mineral oil residues (MOSH/POSH/MOAH) ^{aU)} MOAH Total calculated (C10-C50); MOAH n-C10 to n-C16; MOAH n-C17 to n-C25; MOAH n-C26 to n-C35; MOAH n-C36 to n-C50 MOSH/POSH Total calculated; MOSH/POSH n-C10 to n-C16; MOSH/POSH n-C17 to n-C20; MOSH/POSH n-C21 to n-C25; MOSH/POSH n-C26 to n-C35; MOSH/POSH n-C36 to n-C40; MOSH/POSH n-C41 to n-C50	HPLC-GC-FID	1 mg/kg

4. olive oil packages

code	description	explanation
620	Olive oil Basic	Code 77001 + Code 77008 + Code 77011
621	Olive oil Basic+	Code 77001 + Code 77008 + Code 77011 + sensory panel evaluation (77021) ¹⁾
622	Olive oil Health	Code 77001 + Code 77008 + Code 77011 + Code

Analytical services for edible oils

status: June 2026

Page 3 of 3

		46090
623	Olive oil Health+	Code 77001 + Code 77008 + Code 77011 + Code 46090 + sensory panel evaluation (77021) ¹⁾

5. Additional Services

code	description	explanation
625	Labelling check	Conformity check with regard to current declaration regulations for the marketing of the product

^{a)} accredited method

^{aU)} accredited method by sub-order lab

¹⁾ a separate, sealed original sample (minimum 500 ml/optimum 750 ml) is required for the sensory analysis.

²⁾ a complete list of all substances tested is available on request.

Further analyses on request

All prices in EURO excluding VAT

Conditions of payment: 14 days from date of invoice

Sample amount: minimum of 250 ml per sample

Processing time: - normally 2-3 days for inhouse analyses
- normally up to 10 days for external analyses

Storage: - samples will be stored for 6 months at room temperature