

## PT 21a: Olive oils - physical and chemical analysis

### Details of the program:

- Proficiency testing scheme created in 2008
- **90 registered laboratories from 25 countries**
- **PTS accredited by COFRAC**
- 3 rounds per annual series
- The time for analysis is 4 weeks
- Samples are shipped via express carrier at the end of the previous month.



### Schedule:

DATE	CODE	MATRIX	VOLUME
September	4921	Olive pomace oil	250 ml
February	0221	Extra virgin olive oil	250 ml
June	0121	Olive oil	250 ml

### ANALYTES The list of analytes below varies according to the nature of the sample

Moisture and volatile matter content  
 Oxidability accelerated test (rancimat, 120°C)<sup>NA</sup>  
 Peroxide value  
 Tocopherols  
 Ultraviolet absorbance  
 Water content criterion Karl-Fischer  
 Rancimat<sup>NA</sup>

#### Other analyses:

Benzo (a) anthracene  
 Benzo (a) pyrene  
 Benzo (b) fluoranthene  
 Chrysene  
 Delta ECN 42  
 Diethylhexyl phthalate<sup>NA</sup>  
 Erythrodiol + uvaol  
 Fatty acid ethyl esters<sup>NA</sup>

Impurities  
 Iodine value  
 Index of saponification  
 Oleic acidity  
 Refractive index  
 Relative density<sup>NA</sup>  
 Stigmastadienes  
 Total sterols  
 Unsaponifiable matter  
 Waxes<sup>NA</sup>  
 2-glyceryl monopalmitate  
 Biophenols<sup>NA</sup>

#### Fatty acids composition:

Arachidic, Behenic, Erucic, Gondoic, Heptadecenoic, Lauric, Lignoceric, Linoleic, Linolenic, Margaric, Myristic, Nervonic, Oleic, Palmitic, Palmitoleic, Stearic.

#### Trans fatty acids:

Trans-octadecenoic  
 Trans-octadecadienoic  
 Trans-octadecatrienoic...  
 Sum of saturated acid<sup>NA</sup>  
 Sum of monounsaturated fatty acids<sup>NA</sup>  
 Sum of polyunsaturated fatty acids<sup>NA</sup>

#### Sterols:

Betasitosterol  
 Brassicasterol,  
 Cholestanol  
 Cholesterol,  
 Stigmasterol,  
 Campesterol + 2,4 methylene colesterol,  
 CholesterolNA  
 Delta 7-campesterol,  
 Delta 5-avenasterol,  
 Delta 7-stigmastenol,  
 Delta 7-avenasterol...  
 Others sterols

#### Triglycerides by (HPLC and GC)

*Non exhaustive list*

NA \*: Not accredited parameter

Note: Matrices and analytes may be changed or removed for technical or scientific reasons.

Please refer to current application form available in your member area ([www.bipea.org](http://www.bipea.org)).