

# CODEX ALIMENTARIUS COMMISSION



Food and Agriculture  
Organization of  
the United Nations



World Health  
Organization

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## Agenda Item 2

**MAS/36 CRD/18**  
Original Language Only

### JOINT FAO/WHO FOOD STANDARDS PROGRAMME CODEX COMMITTEE ON METHODS OF ANALYSIS AND SAMPLING

36<sup>th</sup> Session

Budapest, Hungary, 23 – 27 February 2015

#### MATTERS REFERRED TO THE COMMITTEE BY THE CODEX ALIMENTARIUS COMMISSION AND OTHER SUBSIDIARY BODIES

*(Comments of AOAC)*

#### Comment on CX/MAS 15/36/2 add1

##### ***“Standard for Olive Oils and Olive Pomace Oils (CODEX STAN 33-1981) (erythrodiol + uvaol)***

1. With regard to the request from CCMAS to clarify whether the method COI/T.20/doc No. 30-2013 was equivalent to ISO 12228:1999, the Committee agreed to inform CCMAS that ISO 12228:1999 was withdrawn and replaced by ISO 12228-1:2014 and ISO 12228-2:2014, and that ISO 12228-2:2014 and COI/T.20/doc No. 30-2013 were equivalent.”

“10. The Observer from AOCS noting the position that the ISO standard (ISO 12228-2:2014) is suitable for the determination of the erythrodiol and uvaol (and other sterols), expressed concern that the precision data in the method is significantly different from the same data now contained in ISO 12228-1 and might not be considered equivalent. “ *Taken from CCFO Draft Rep 15.*

With regards to the above extracts, AOCS wishes to bring to the attention of the committee the following excerpts from CRD 6 from the same meeting prepared by the International Olive Council.

Under Comments on the measurement of delta-7 stigmastenol:

“– Large discrepancies were observed in the application of the methods for the determination of the sterols. The unified method gives higher contents of  $\Delta$ 7-stigmastenol and erythrodiol + uvaol. Hence, when  $\Delta$ 7-stigmastenol content was low, the results were very similar. However, at high concentrations of  $\Delta$ 7-stigmastenol, the results diverged both between and within the labs. This is demonstrated in the next table.”

**Results for sterols and erythrodiol+ uvaol methods**

Parameter	Test code	Sterols and E+U two methods		Sterols and E+U unified	
		1ST	2ND	1ST	2ND
$\Delta^7$ -stigmastenol %		0.76	0.50	0.79	0.60
	PA41	0.66	0.52	0.86	0.71
	PA42	0.66	0.61	0.88	0.79
	PA43	0.82	0.65	1.01	0.80
	PA44	0.59		0.87	
	PA45	0.32		0.98	
	PA46	0.36		0.89	
	PA30	0.39		0.38	
	PA31	0.19		0.18	
	PA32	0.34		0.36	
apparent $\beta$ -sitosterol %	PA44	95.20		94.27	
	PA45	95.79		93.87	
	PA46	95.79		94.32	
erythrodiol+uvaol %	PA44	1.48		2.49	
	PA45	0.91		2.37	
	PA46	1.23		2.36	

AOCS notes that the content of erythrodiol + uvaol is limited to < 4.5% in the olive oil standard except for pomace oil and this revised test increases the levels determined in virgin oils significantly. On this basis, AOCS still questions whether the revised method (unified) is indeed giving results that are equivalent to ISO 12228-1 plus the previous IUPAC method for erythrodiol + uvaol. AOCS further notes that if ISO 12228-2 is accepted as a replacement for ISO 12228-1 plus the IUPAC method, then the AOCS method should be deleted from this provision in GL 234 since it is identical to ISO 12228-1, but not to ISO 12228-2.

**Replacement of the IUPAC method for relative density**

11. The observer from AOCS clarified that the equivalent methods for relative density were ISO 6883:2007 and AOCS Cc 10c-95 and that these methods were harmonized by the relevant committees of both organizations.

*Taken from CCFO Draft Rep 15.*