Hellenic Accreditation System

Annex F1/IV18 to the Certificate No.**142**-6

SCOPE of ACCREDITATION

of the

Departments A΄ and B΄

of the

Chemical Service of Central Macedonia

of the

General Chemical State Laboratory

Tested materials/ Products	Types of test/ Properties to be measured	Applied Methods/ Techniques to be used
Chemical tests		
1. Alcohol, alcoholic drinks, wines, beer	Determination of alcoholic strength	In house method based on Regulation (EC) 2870/2000 and on the Compendium of International Methods Of Analysis-OIV, method OIV-MA-AS312-01A by electronic densimeter, Method Code: ΜΕΘΤΡΦ 001
2. Alcohol, alcoholic drinks	1. Determination of volatile congeners	In house method based on Regulation (EC) 2870/2000 by Gas Chromatography Method Code: ΜΕΘΤΡΦ 002
	2. Determination of phthalate esters	In-house method based on J. AOAC Int, 1995, 78(3), 730, by HPLC Method Code: ΜΕΘΤΡΦ 035
3. Cheese	Detection of cows' milk and caseinates in cheese from ewes', goats' or buffallos' milk or mixtures of them	In house Method based on Regulation (EU) 2018/150, Annex VIII, by Isoelectric Focusing, Metro Code: ΜΕΘΤΡΦ 003
4. Milk and evaporated milk and	Determination of fat content	In house Method based on ISO

cheese and processed cheese		23318:2022 (IDF 249:2022) and ISO 23319:2022 (IDF 250:2022), by gravimetry, Method Code: ΜΕΘΤΡΦ 029
5. Butter	Determination of solids-no-fat and fat contents (computationally)	In house Method based on ISO 3727-2 (IDF 80:2/2001) & ISO 3727-3 (IDF 80:3/2003) Method Code: ΜΕΘΤΡΦ 050
6. Edible plant oils	1. Determination of fatty acid methyl esters	Method of Implementing Regulation (EU) 2022/2105, Annex I, (COI/T.20/Doc. No 33), by Gas Chromatography, Method Code: ΜΕΘΤΡΦ 004
	2. Determination of Sterols	Method of Implementing Regulation (EU) 2022/2105, Annex I, (COI/T.20/Doc. No 26), by Gas Chromatography, Method Code: ΜΕΘΤΡΦ 005
	3. Determination of free acids, cold method	Method of Implementing Regulation (EU) 2022/2105, Annex I, (COI/T.20/Doc. No 34), by titrimetry, Method Code: ΜΕΘΤΡΦ 006
	4. Spectrophotometric investigation in the ultraviolet	Method of Implementing Regulation (EU) 2022/2105, Annex I, (COI/T.20/Doc. No 19), Method Code: ΜΕΘΤΡΦ 007
	5. Determination of the peroxide value	Method of Implementing Regulation (EU) 2022/2105, Annex I, (COI/T.20/Doc. No 35) Method Code: ΜΕΘΤΡΦ 049
7. Olive oils and pomace oils	Determination of triacylglyceroles with ECN42 (difference between HPLC data and theoretical content)	Method of Implementing Regulation (EU) 2022/2105, Annex I, (COI/T.20/Doc. No 20), Method Code: ΜΕΘΤΡΦ 027
8. Edible Fats	Determination of methyl butyrate	In house Method by GC – FID Method Code: ΜΕΘΤΡΦ 044
9. Meat and Meat products	1. Determination of chloride anion content	In house Method by titrimertry, Method Code: ΜΕΘΤΡΦ 013
	2. Determination of hydroxyproline.	Method ISO 3496: 1994 by Spectrophotometry, Method Code: ΜΕΘΤΡΦ 016
10. Meat and Meat products and Cereals and cereals products	1. Determination of ash	In house Method based on ISO 936: 1998, ISO 2171÷ 2023 Regulation (EC) 234/2010 and Codes of

		Foods and Drinks, Section B, by gravimetry, Method Code: ΜΕΘΤΡΦ 011
	2. Determination of total fat content	In house Method by gravimetry, Method Code: ΜΕΘΤΡΦ 021
11. Fish and fishery products	1. Determination of histamine	In house Method by HPLC (post column derivatization followed by fluorescence detection), Method Code: ΜΕΘΤΡΦ 036
	2. Determination of mercury (Hg)	In house Method by Atomic Absorption – FIAS Technique according to Regulation EC333/2007 as amended Method Code: ΜΕΘΤΡΦ 043
12. Honey	1. Determination of Hydroxymethylfurfural (HMF)	Harmonized Methods of the International Honey Commission, White method, Spectrophotometry Method Code: ΜΕΘΤΡΦ 037
	2. Determination of diastase activity (DN)	Harmonized Methods of the International Honey Commission, Phadebas method, Spectrophotometry Method Code: ΜΕΘΤΡΦ 038
	3. Determination of moisture	Harmonized Methods of the International Honey Commission, Refractometric method, Method Code: ΜΕΘΤΡΦ 046
	4. Determination of electrical conductivity	Harmonized Methods of the International Honey Commission, Conductometry Method Code: ΜΕΘΤΡΦ 047
	5. Determination of thyme pollen grains	In house Method, based on Harmonized Methods of melissopalynology [Apidologie 35 (2004)], by Microscope, Method Code: ΜΕΘΤΡΦ 048
13. Foods, non-alcoholic drinks, alcoholic carbonated drinks, wines, beer	1. Determination of benzoic acid and sorbic acid	In house Method by HPLC Method Code: ΜΕΘΤΡΦ 009
	2. Determination of total sulphur dioxide	In house Method by titrimetry, Method Code: ΜΕΘΤΡΦ 032
14. Bakery and Confectionary products	Determination of propionic acid	In house Method by GC – FID Method Code: ΜΕΘΤΡΦ 045
15. Foods	1. Determination of total nitrogen	In house Method based on ISO 937:2023 ISO 8968-1:2014 (IDF 20-1:2014) and A.O.A.C./991.20-by titrimetry Method Code: ΜΕΘΤΡΦ 014
	2. Determination of moisture content	In house Method based on ISO

15. Foods (cont.)	and total solids in cheese and processed cheese	1442:2023, ISO 5534 (IDF 4:2004), ISO 3727-1 (IDF 80:1/2001) and Codes of Foods and Drinks, Section B, by gravimetry, Method Code: ΜΕΘΤΡΦ 010
	3. Determination of nitrite and nitrate content	In house Method by Spectrophotometry, Method Code: ΜΕΘΤΡΦ 023
	4. Determination of water-soluble dyes	In house Method by HPLC – DAD Method Code: ΜΕΘΤΡΦ 042
	5. Determination of tin (Sn)	In house Method by Atomic Absorption - Graphite Furnace Technique (GFAA), according to Regulation (EC) 333/2007 as amended Method Code: ΜΕΘΤΡΦ 033
16. Foods, wines, alcoholic drinks	1. Determination of cadmium (Cd) and lead (Pb)	In house Method by Atomic Absorption - Graphite Furnace Technique (GFAA), according to Regulation (EC) 333/2007 as amended Method Code: ΜΕΘΤΡΦ 033
	2. Determination of sugars	In house Method based on ILIADe 122:2019 – CLEN Method, on Harmonized Methods of the International Honey Commission, on Regulation (EC) 2870/2000 and on the Compendium of International Methods Of Analysis-OIV, method OIV-MA-AS311-03 by HPLC Method Code: ΜΕΘΤΡΦ 039
17.Wine	1. Determination of total acidity	In house method based on the Compendium of International Methods Of Analysis-OIV, method OIV MA-AS313-01 by titration. Method code: ΜΕΘΤΡΦ 051
	2. Determination of volatile acidity	In house method based on the Compendium of International Methods Of Analysis-OIV, method OIV MA-AS313-02 by titration. Method code: ΜΕΘΤΡΦ 052
18. Foods, non-alcoholic drinks	Determination of acesulfame-K, saccharin, aspartame and caffeine	In house Method based on EN 12856:1999 by HPLC Method Code: ΜΕΘΤΡΦ 041
19. Nuts, dried fruits and cereals	Determination of aflatoxins B1, B2, G1 and G2	In house Method by HPLC (post column derivatization followed by fluorescence detection) Method Code: ΜΕΘΠΕΡ 001
20. Water with low	1. Determination of dissolved	In house Method by chemical suppression ion chromatography

contamination	fluoride, chloride, nitrite, nitrate, bromide, orthophosphate and sulfate ions	Method Code: ΜΕΘΠΕΡ 003
	2. Determination of sodium, ammonium, calcium, magnesium and potassium cations	In house Method by ion chromatography (without chemical ion suppression), Method Code: ΜΕΘΠΕΡ 005
	3. Determination of manganese (Mn), lead (Pb), nickel (Ni), copper (Cu), chromium (Gr), cadmium (Cd) and iron (Fe)	In house Method by Atomic Absorption - Graphite Furnace Technique (GFAA, Method Code: ΜΕΘΠΕΡ 006
20. Water with low contamination (cont.)	4. Determination of arsenic (As) antimony (Sb), selenium (Se) and mercury (Hg)	In house Method by Atomic Absorption – Hydrite Analysis Technique (AAS-FIAS-MHS), Method Code: ΜΕΘΠΕΡ 007
21. Potable, surface and other types of water	1. Determination of pH	In house, Method Code: ΜΕΘΠΕΡ 009
	2. Determination of conductivity	In house, Method Code: ΜΕΘΠΕΡ 010
22. Narcotic drugs	Quantification of cocaine	In house method, GC/MS Method Code: ΜΕΘΝΑΡΚ01
23. Petroleum and petroleum products, residual fuel oils	Determination of sulfur content (mg/kg, %)	Energy dispersive X-Ray fluorescence spectrometry, Method Code: ISO 8754:2025
24. Petroleum and petroleum products	1. Determination of sulfur content (mg/kg)	Ultraviolet fluorescence method, Method Code: ISO 20846: 2019
	2. Determination of fatty methyl ester (FAME) content in middle distillates	Infrared spectrometry method Method Code: EN 14078: 2014
25. Gasoil	Detection & Determination of n-Butylphenyl Ether (BPE), active substance of Euromarker ACCUTRACE PLUS by 2D/GC/FID-MS	ILIADe 606:2024/CLEN Method Code: 2D-GC/MS_ACCUTRACE PLUS
26. Diesel, Heating Gasoil, Marine Gasoil	Detection & Determination of 1,3,5 tri-isopropyl-benzene active substance of National Marker FT39 by 2D-GC/FID-MS	In house method based on ministerial decision 95/2021 (greek goverment journal 1136/B/2023) and ILIADe 606:2024/CLEN method Method Code: 2D-GC/MS_FT39
27. Diesel, Heating Gasoil, Marine Gasoil	Detection & Determination of 1,3,5 tri- (1,1dimethylethyl) benzene active substance of National Marker FT36 by 2D-GC/FID-MS	In house method based on ministerial decision 94/2021 (greek goverment journal 1339/B/2023) and ILIADe 606:2024/CLEN method

		Method Code: 2D-GC/MS_FT36
1. Petroleum and petroleum products	1. Determination of flash point (°C)	Pensky Martens closed cup method (Procedure A) Method Code: ISO 2719:2016
	2. Determination of density (kg/m^3)	Oscillating U-tube method (600 kg/m^3- 1.100 kg/m^3), Method Code: ISO 12185:2024
	3. Determination of distillation characteristics at atmospheric pressure	Distillation at atmospheric pressure, Method Code: ISO 3405:2019
2. Petroleum and transparent liquid products (cont.)	Determination of density (kg/m^3)	Hydrometer method Method Code: ISO 3675:1998
3. Diesel oil and heating oil	1. Determination of cold filter plugging point (°C)	Cold filter plugging point determination method, Method Code: EN 116:2015
	2. Standard test method for calculated Cetane Index	By 4 variable equation, Method Code: ISO 4264:2018
4. Petroleum and petroleum products, lubricants	1. Determination of kinematic viscosity (mm^2/s, cst) and calculation of dynamic viscosity and viscosity index of transparent and semitransparent liquids	In house validated method, based on ISO 3104:2023 Method code: VISC 3104
4. Petroleum and petroleum products, lubricants (cont.)	2. Determination of pour point (°C)	Pour point determination method, Method Code: ISO 3016:2019
5. Liquid petroleum products (gasolines)	Determination of air saturated vapour pressure and calculated dry vapour pressure equivalent	Determination method of air saturated vapour pressure (ASVP) and calculated dry vapour pressure equivalent (DVPE), Method Code: EN 13016-1: 2024
Opinions and Interpretations		
Liquid fuels	Opinion and Interpretation of results from the analysis of liquid fuels samples	- Accredited methods - Ministerial decision 54/2015“Procedures for sampling, testing and issuing opinions regarding the conformity or non-conformity of liquid fuel samples” (Greek government journal 462/B/2016) - Legislation and the provisions of the standard ELOT EN ISO 4259, EN 590, EN 228, EN 8217

Site of assessment: **Laboratory permanent premises, N. Votsi 1, Thessaloniki, Greece.**
Approved Signatories: **L. Valianou**, **C. Vijdeluc**, **E, Georgakaki, A. Grigoriadou, P. Karakosta, Z. Kechagia, E. Kogianni, Ch. Koutsou, M. Leinoudi, Th. Malamatari, S. Parouti, S. Pataroudi, G. Savvopoulos, P. Tarantili, M. Tzika, E. Tolika, S. Topis, X. Totta I. Tsavdaridis, N. Tirovouzis.**

This Scope of Accreditation replaces the previous one dated 31.10.2024.
The Accreditation Certificate No. **142**-6, according to ELOT EN ISO/IEC 17025:2017, is valid until 06.11.2028

Athens, 30.04.2026

Evangelos Apostolos Konstantinou
CEO of ESYD

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