

Hellenic Accreditation System



ACCREDITATION CERTIFICATE

No. 195-9

The Hellenic Accreditation System (ESYD), as the national accreditation body of Greece in accordance with the Law 4468/2017,

ACCREDITS

the
Testing Laboratories
“QACS Ltd.”

&

“QACSFOOD”

of

Quality Assurance & Control Systems Ltd.

in Metamorphosis, Attica and in Piraeus, Greece

under the terms of the ELOT EN ISO/IEC 17025:2017 Standard and the ESYD Criteria, to carry out tests, as specified in the attached Scope of the Accreditation, which may be revised by decisions of ESYD.

The initial accreditation was issued on 09.03.2005. This Certificate is valid until 08.03.2025 provided that the accredited bodies comply with the above Standard and the ESYD Criteria.

Athens, 11th of January 2024



Hellenic Accreditation System



Annex F1/B18 to Certificate No. 195-9

SCOPE of ACCREDITATION

of the Testing Laboratory

QACSFOD

of the

QUALITY ASSURANCE AND CONTROL SYSTEMS LTD

Materials / products tested	Types of test / Properties to be measured	Applied Methods / Techniques to be used
Chemical Tests		
<p>1. Food of plant and animal origin</p> <p>a) Fruits and vegetables with high water content</p> <p>b) Cereals and pulses</p> <p>c) Milk and milk products</p> <p>d) Tobacco leaves, wet or dried</p> <p>e) Plant origin products with high fat content</p> <p>f) High sugar content products (honey, fruit jams, etc)</p> <p>(based on ESYD/G-FYTOPROST 2016 και SANTE/11312/2021)</p>	<p>Residue determination of agricultural drugs</p> <p>As described in detail in the List of Accredited Activities in Flexible Scope</p>	<p>In-house method based on SANTE/11312/2021:</p> <p>E_XM100/ EN 12396-1:1999</p> <p>E_XM113/ LC-MS/MS</p> <p>E_XM114/ GC-MS/MS</p> <p>E_XM115§A/LC-MS/MS</p> <p>E_XM115§B/ LC-MS/MS</p> <p>E_XM116/ GC-MS/MS</p> <p>E_XM116/ LC-MS/MS</p> <p>E_XM117/ LC-MS/MS</p> <p>E_XM118/ GC-MS/MS</p>
<p>2. Non-edible leaves of plants and trees</p> <p>(based on ESYD/G-FYTOPROST 2016 και SANTE/11312/2021)</p>	<p>Residue determination of agricultural drugs</p> <p>As described in detail in the List of Accredited Activities in Flexible Scope</p>	<p>In-house method based on SANTE/11312/2021:</p> <p>E_XM114/ GC-MS/MS</p>
<p>3. Milk and honey</p>	<p>Determination of antibiotics:</p> <p>Sulfonamides, tetracyclines, penicillin G, penicillin V, chloramphenicol, trimethoprim, natamycin, flumequine, fumagilline, carbadox</p>	<p>In-house method</p> <p>E_XM121/ LC-MS/MS based on J. Agric. Foods Chem., 2008, Vol 56 (5), p.1553-1559 and J. Chromat. B, 2011, Vol.879 (25), p.2601-2610</p>

Materials / products tested	Types of test / Properties to be measured	Applied Methods / Techniques to be used
4. Cereals and feeds, meat-fish	Determination of antibiotics: Sulfonamides, tetracyclines, penicillin G, penicillin V, chloramphenicol, trimethoprim, natamycin, flumequine, fumagilline, carbadox	In-house method E_XM122/ LC-MS/MS based on AOAC 999.16 and AOAC 977.37
5. Feeds	Determination of coccidiostatics	In-house method E_XM110/ LC-MS/MS based on AB SCIEX 2011, Publication number 4482011-01
6. High water content foods, cereals, dairy products	Determination of K, Na, Ca, Mg	In-house method E_XM107/ AAS based on AOAC 985.35
7. Foods and feeds (based on ESYD/G-METALS 2016)	Determination of elements (total): As described in detail in the List of Accredited Activities in Flexible Scope	In-house method E_XM109/ ICP – MS based on a) USFDA, Elemental Analysis Manual, Sect. 4.7, ver.1.2 Feb/2020, (b) EN 17053:2018, (c) EN 15765:2010
8. Milk (fresh, concentrated or powder)	Determination of Aflatoxin M1	In house method E_XM037/ HPLC-FLD based on ISO 14501:2021
9. Raisin, grape, coffee, clover, cereals	Determination of Ochratoxin A	In house method E_XM001/ HPLC – FLD based on ISO 15141:2018
10. Cereals, Dried nuts, Dried fruits, Spices, Feed	Determination of Aflatoxin G1, G2, B1, B2	In house method E_XM002/ HPLC - FLD based on ISO 15851:2010 and ISO 16050:2003
11. Tree nuts -Oil seeds, dried fruits, fruits, vegetables, cereals, seasonings and feeds	Determination of aflatoxins B1, B2, G1, G2	In house method E_XM003/ HPLC, post-column derivsn. - FLD based on AOAC 999.07 modified
12. Cereals	Determination of Fumonisin B1 & B2	In house method E_XM123 §A/ LC-MS/MS
13. Cereals and feeds	Determination of aflatoxins B1, B2, G1, G2, ochratoxin A (OTA), zearalenone (ZON), deoxynivalenol (DON), diacetoxyscirpenol (DAS), T-2 και HT-2	In house method E_XM123 §B/ LC-MS/MS based on J. Chromatography A, 1062 (2005), p.209-16
14. Foods, feeds, supplements and baby foods	1. Determination of vitamin A and E	In-house method E_XM111/ HPLC/ DAD & FLD based on AOAC 2001.13 and 971.30
	2. Determination of vitamin D	In-house method E_XM112/ LC-MS/MS based on AOAC 936.14
15. Cereals and pulses	Water and volatile matter content	In-house method E_XM040 in T~ 130°C based on ISO 712-2009 and

Materials / products tested	Types of test / Properties to be measured	Applied Methods / Techniques to be used
		ISO 24557-2009/ Gravimetric
16. Foods, agricultural products	Determination of total nitrogen and protein content	In house method E_XM015, Kjeldahl based on method ISO 20483:2013 & AOAC 2001.14
17. Foods	Determination of fatty mater	In-house method E_XM017 by acidic and alkaline hydrolysis based on AOAC 963.15, 933.05, 948.15, 922.06, 905.02
18. Honey	1. Determination of diastase activity	In house method E_XM004 based on: International Honey Commission 6.2 Phadebas/ Spectrophotometry
	2. Determination of HMF (hydroxymethylfufural) in honey	In house method E_XM041 based on: International Honey Commission 5.2 Determination of hydroxymethylfurfural after White/ Spectrophotometry
	3. Determination of % thyme pollen grains in honey (Pollen analysis)	In house method E_XM029 based on: Methods of Melissopalynology J. Louveaux, Anna Maurizio & G. Vorwohl
	4. Sugars	In house method E_XM044 based on: International Honey Commission 7.2 Determination of sugars by HPLC-RI
19. Meat and meat products	1. Determination of NO2-	In house method E_XM030 based on: ISO 2918:1975/ Spectrophotometry
	2. Determination of NO3-	In house method E_XM030 based on: ISO 3091:1975/ Spectrophotometry
	3. Determination of Ash	In house method E_XM036 based on: ISO 936:1998/ Gravimetric
	4. Determination of Moisture and Dry total matter	In house gravimetric method E_XM040 in T ~ 105°C based on ISO 1442:2023
	5. Sugars	In house method E_XM043/ HPLC-RI based on AOAC 977.20

Materials / products tested	Types of test / Properties to be measured	Applied Methods / Techniques to be used
20. Foods except for alcoholic beverages, wines, grapes, blueberries and vinegar	Determination of sulphur dioxide	In house method E_XM035 based on Method D2/ Food and Beverage Code Part B/ Volumetric
21. Foodstuffs	1. Determination of Acrylamide	In house method E_XM025/ GC-ECD based on Journal of Chromatography A, 1116 (2006) 209-216 In house method E_XM102/ LC-MS/MS based on J. Critical Reviews in Analytical Chemistry, Vol 44 (2014), p.107-141
	2. Determination of Benzoic and/or Sorbic acid	In house method E_XM034/ HPLC-DAD based on ISO 22855:2008
22. Foods, supplements and baby foods	Determination of Vitamin C	In house method E_XM088/ HPLC-DAD
23. Potable waters	1. Determination of Conductivity	In house method E_XM012 based on APHA 2510
	2. Determination of Nitrate ions in drinking and ground water	In house method E_XM019 based on APHA 4500-NO3 B
24. Water	Determination of acrylamide	In house method E_XM101/ LC-MS/MS
25. Water drinking, surface (sea water etc.) and ground (drilling etc.) intended for direct or not human consumption	Determination of 29 elements (dissolved): Li, Be, B, Na, Mg, Al, P, K, Ca, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, As, Se, Sr, Mo, Ag, Cd, Sn, Sb, Ba, Hg, Tl, Pb	In house method E_XM108/ ICP – MS based on (a) ISO 17294-2:2023, (b) USEPA 6020A
26. Water drinking, and ground (drilling etc.)	Determination of volatile halogenated hydrocarbons: Chloroform, bromodichloromethane, dibromochloromethane, bromoform, trichloroethene, tetrachloroethene	In-house method E_XM103/ GC-ECD
27. Water drinking, surface (sea water etc.) and ground (drilling etc.) intended for direct or not human consumption	Determination of 8 PAH's: benzo(a)anthracene, chrysene, benzo(b)fluranthene, benzo(a)pyrene, indeno (1,2,3-c. d) pyrene, dibenzo (a, h) anthracene, benzo (g, h, i) perylene, benzo(k)fluoranthene	In-house method E_XM104/ GC-MS/MS based on USEPA 3510C (EPA 8270)
28. Water drinking, surface (sea water etc.) and ground (drilling etc.) intended for direct or not human consumption	Determination of polychlorinated biphenyls (PCBs) and polychlorinated terphenyls (PCTs): PCB 28, PCB 52, PCB 101, PCB 118, PCB 138, PCB 153, PCB 180 & 2,5-dichloro-p-terphenyl, 2,4,6-trichloro-p-terphenyl, 2,3,5,6-tetrachloro-p-terphenyl, 2,3,4,5,6-pentachloro-p-terphenyl	In-house method E_XM105/ GC-MS/MS based on USEPA 8082A
29. Water drinking, surface (sea water etc.) and ground (drilling etc.) intended for direct or not human consumption	Determination of Phenolic compounds: phenol, 2-chlorophenol, 2-nitrophenol, 2,4-dimethylphenol, 2,4-dichlorophenol, 2,6- dichlorophenol, 4-chloro-3-methylphenol, 2,4,6-trichlorophenol, 2,4-dinitrophenol, 4- nitrophenol, 2,3,4,6-tetrachlorophenol, pentachlorophenol, 2-methyl-4,6- dinitrophenol	In-house method E_XM106/ GC-MS/MS based on USEPA 528

Materials / products tested	Types of test / Properties to be measured	Applied Methods / Techniques to be used
<p>30. Water drinking, surface (sea water etc.) and ground (drilling etc.) intended for direct or not human consumption</p>	<p>Residue-determination of 301 agricultural drugs:</p> <p>abamectin, acephate, acetamiprid, acetochlor, aldicarb, aldicarb sulfone, aldicarb sulfoxide, ametoctradin, ametryn, amitraz, atrazine, azadirachtin Na, azoxystrobin, benalaxyl, bendiocarb, benthiovalicarb isopropyl, bifenazate, bitertanol, boscalid, bromacil, bromoxynil, bromuconazole, bupirimate, buprofezin, butocarboxim, butocarboxim sulfoxide, cadusaphos, carbaryl, carbendazim, carbofenothion, carbofuran, carbofuran,3-OH, carboxin, carfentrazoneEt, chlorantraniliprole, chlorfenvinphos, chloridazon, chlorosulfuron, chlorpyriphos (-Et), chlorpyriphos-Me, cinerin I, cinerin II, clethodim, climbazol, clodinafop propargyl, clofentezine, clothianidine, coumaphos, crimidine, cyanazine, cyazofamid, cycloate, cycloxydim, cyflufenamid, cyproconazol, cyprodinil, cyromazin, DEET, demetonO/S, demeton-S-Me, demeton-S-Mesulfone, desmethryn, diazinon, dibrom (naled), dichlorvos, diclobutrazol, dicrotophos, diethofencarb, difenoconazol, diflubenzuron, dimefox, dimethoate, dimethomorph e+z, dimoxystrobin, diniconazol, dinotefuran, dipropetryn, disulfoton sulfone, disulfoton sulfoxide, diuron, DMF, DMPF, DMST, dodemorph, dodine, emamectin benzoate, etaconazol, ethionfencarb, ethiofencarb sulfoxide, ethirimol, ethofumesate, ethoprophos, etofenprox, etoxazol, etrimfos, fenamiphos, fenamiphos sulfone, fenamiphos sulfoxide, fenazaquin, fenbuconazol, fenhexamid, fenoxaprop-P-Et, fenoxycarb, fenpropidin, fenpyroximate, fensulfothion, fenthion, fenthion oxon, fenthion sulfone, fenthion sulfoxide, fipronil, fipronil sulfone, florasulam, fluazifop, fluazifop-Bu, fluazinam, flubendiamide, fludioxonil, flufenacet, flufenoxuron, fluometuron, fluopicolide, fluopyram, fluorotrimazol, flusilazol, flutianil, flutolanil, flutriafol, fluxapyroxad, forchlorfenuron (cppu), fosthiazate, fuberidazol, furalaxyl, furathiocarb, haloxyfop, haloxyfop-p-Me, heptenophos, hexaconazol, hexaflumuron, hexazinon, hexythiazox, imazalil, imidacloprid, indoxacarb, iodosulfuron Me, ioxynil, iprovalicarb, isazophos, isofetamid, isoprocarb, isoprothiolane, isoproturon, isoxaflutole, kresoxim Me, lenacil, linuron, lufenuron, malaaxon, malathion, mandipropamide, mecarbam, mepanipyrim, mepronil, mesosulfuron Me, metaflumizone, metalaxyl, metconazole, methabenzthiazuron, methamidophos, methidathion, methiocarb, methiocarb sulfoxide, methomyl, methoprene, methoxyfenozide, metolcarb, metrafenone, metribuzin, metsulfuron, mevinphos, monocrotophos, monolinuron, myclobutanil, napropamide, neburon, nicosulfuron, nitenpyram, novaluron, nuarimol, ofurace, omethoate, oxadixyl, oxamyl, oxathiapiprolin, oxydemeton-Me, paclobutrazol, paraoxon-Et, paraoxon-Me, pebulate, penconazol, penthiopyrad, phenyl-N urea, phorate, phorate sulfone, phorate sulfoxide, phosalone, phosphamidon, phoxim, picaridin, picolinafen, picoxystrobin, pinoxaden, piperonyl butoxide, pirimicarb, pirimicarb-desmethyl-formamide, pirimicarb-desmethyl, pirimiphos-Et, pirimiphos-Me, prochloraz, profenofos, profoxydim, promecarb, prometryn, propachlor, propamocarb, propanil, propaquizafop, propargite, propham, propiconazol, propoxur, propyzamid, proquinazid, prosulfocarb, pymetrozin, pyraclostrobin, pyrazophos, pyrethrin I, pyrethrin II, pyridaben, pyrimethanil, pyriofenone, pyriproxifen, pyroxsulam, quinalphos, quinoxiphen, quizalofop-p-Et, quizalofop-p-tefuryl, resmethrin, rimsulfuron, rotenone, sethoxydim, simazine, spinosynA, spinosynD, spinosynJ, spinosynL, spirotetramat,</p>	<p>In-house method E_XM119/ LC-MS/MS based on USEPA 3510C</p>

Materials / products tested	Types of test / Properties to be measured	Applied Methods / Techniques to be used
30. Water drinking, surface (sea water etc.) and ground (drilling etc.) intended for direct or not human consumption (continued)	spirotetramat-monoOH, spiroxamine, sulfentrazone, sulfotep, sulfoxaflor, sulprophos, tebuconazol, tebufenozide, tebufenpyrad, teflubenzuron, tepraloxym, terbufos sulfone, terbufos sulfoxide, terbumeton, terbuthryn, terbuthylazine, tetrachlorvinphos, tetraconazol, thiabendazol, thiachloprid, thiamethoxam, thifensulfuron-Me, thiodicarb, thiofanox, thiofanox sulfone, thiofanox sulfoxide, thiophanate-Me, tolfenpyrad, tralkoxydim, triadimefon, triadimenol, triasulfuron, tricyclazol, trifloxystrobin, triflumizol, triflumuron, triforine, triticonazol, uniconazol-P, valifenalate, vamidothion, zoxamide	In-house method E_XM119/ LC-MS/MS based on USEPA 3510C (continued)
31. Water drinking, surface (sea water etc.) and ground (drilling etc.) intended for direct or not human consumption	Residue-determination of 166 agricultural drugs: acibenzolar-S-Me, aclonifen, acrinathrin, alachlor, aldrin, amitraz, azaconazol, azinphos-Et, azinphos-Me, benalaxyl, benfluralin, benfuracarb, bifenox, bifenthrin, bitertanol (2p), bromacil, bromocyclen, bromophos Et, bromophos Me, bromopropylate, butafenacil, carbaryl, chlordane cis, chlordane trans, chlorfenapyr, chlorfenson (ovex), chlorobenzilate, chlorpropham, chlorpyriphos (-Et), chlorpyriphos-Me, chlorthal-dimethyl, clomazon, cloquintocet-mexyl, cyanophos, cyfluthrin (4p.), cyfluthrin-β, cyhalothrin-λ, cypermethrin (4p.), cypermethrin-α, cyproconazol, DDD-op', DDD-pp', DDE-pp', DDT-op, DDT-pp', deltamethrin, diazinon, dichlofenthion, dichlofluand, dichlorvos, 4,4-DiClbenzophenone, diclobutrazol, dicloran, dieldrin, difenoconazol, diflufenican, dimethenamid, dimethoate, diniconazol, diphenamid, diphenylamine, endosulfan sulfate, endosulfan a-, endosulfan b-, endrin, EPN, epoxiconazol, etaconazol, ethalfluralin, ethion, ethofumesate, etofenprox, famoxadone, famphur (famophos), fenamidon, fenarimol, fenchlorphos, fenitrothion, fenpropathrin, fenpropimorph, fenson, fenthion, fenthion sulfone, fenthion sulfoxide, fenvalerate (2p.), fluchloralin, flucythrinate, flumioxazin, fluquinconazol, flutriafol, fluvalinate-τ, fonofos ((dyfonate)), HCB, HCH delta, HCH-α, HCH-β, HCH-γ, heptachlor, heptachlor epox. endo, heptachlor epox. exo, iprobenphos, iprodione, isocarbophos, isodrin, isofenphos, isofenphos-methyl, jodfenphos, leptophos, malaaxon, malathion, mafenpyr-diethyl, metalaxyl, metazachlor, methacriphos, methidathion, methoprothryne, methoxychlor, metolachlor, metribuzin, mevinphos, myclobutanil, nitralin, nitrofen, nitrothal-isopropyl, norflurazon, o-phenylphenol, oxadiazon, oxyfluorfen, parathion (-Et), parathion-Me, pendimethalin, permethrin (2p.), perthan, phentoat, phorate, phosalone, phosmet, piperonyl butoxide, pirimiphos-Me, procymidone, profluralin, propanil, propazin, propetamphos, propham, prothiophos, pyridafenthion, pyrifeno (2p.), quinoxiphen, quintozone, spiromesifen, tebuconazol, tefluthrin, terbacil, terbufos, tetradifon, tetramethryn, tetrasul, tolclphos Me, transfluthrin, triadimefon, triallat, triazophos, trichloronate, trifluralin, vinclozolin	In-house method E_XM120/ GC-MS/MS based on USEPA 3510C
32. Vegetable oils and fats	Determination of 15 plasticizers: butylbenzyl phthalate BBP, dibutyl adipate DBA, dibutyl phthalate DBP, diethyl adipate DEA, diethyl phthalate DEP, diethylhexyl adipate DEHA, diethylhexyl phthalate DEHP, diisobutyl adipate DIBA, diisobutyl phthalate DIBP, diisodecyl phthalate DIDP, diisononyl phthalate DINP, dimethyl phthalate DMP, dioctyl phthalate DOP, tributyl acetyl citrate TBAC, tributyl phosphate TBP	In-house method E_XM099/ GC-MS/MS

Materials / products tested	Types of test / Properties to be measured	Applied Methods / Techniques to be used
33. Tobacco leaves, wet or dried	Residue-determination of 86 agricultural drugs: 2,4,5-T, 2,4-D, 3-OH carbofuran, acephate, acetamiprid, aldicarb, aldicarb sulfone, aldicarb sulfoxide, azoxystrobin, benalaxyl, carbaryl, carbendazim, carbofuran, chlorantraniliprole, chlorfenvinphos, clothianidine, cymoxanil, cyprodinil, demetonSMe, demetonSMesulfone, desmethyl-formamido-pirimicarb, desmethyl-pirimicarb, diazinon, dibrom (naled), dicamba, dichlorvos, diflubenzuron, dimefox, dimethoate, dimethomorph e+z, emamectin, ethoprophos, fenamiphos, fensulfothion, fenthion, fenthion oxon, fenthion sulfone, fenthion sulfoxide, fluazifop-P-Bu, flubendiamide, fludioxonil, fluopicolide, imidacloprid, indoxacarb, malaixon, malathion, metaflumizone, metalaxyl + metalaxyl-M, methamidophos, methiocarb, methiocarb sulfone, methiocarb sulfoxide, methomyl, methoprene, mevinphos (2p), monocrotophos,, napropamide, omethoate, oxadixyl, oxamyl, oxydemeton-Me, paraoxon Et, paraoxon-Me, pebulate, penconazol, phosalone, phosmamidon, phoxim, piperonyl butoxide, pirimicarb, pirimiphos-Me, profenofos, propoxur, pymetrozin, pyrethrin I, pyrethrin II, spirotetramat, tetrachlorvinphos, thiachloprid, thiamethoxam, thiophanate-Me, triadimefon, triadimenol, trichlorfon, triflumuron, vamidothion	In-house method E_XM113/ LC-MS/MS based on SANTE/11312/2021 and EURL-FV M4 method
34. Tobacco leaves, wet or dried	Residue-determination of 88 agricultural drugs: acibenzolar-S-Me., alachlor, aldrin, azinphos-Et, azinphos-Me, benalaxyl, benfluralin, bifenthrin, bromophos-Me, butralin, carbaryl, chinomethionate, chlordane cis, chlordane trans, chlorothalonil, chlorpyrifos (-Et), chlorpyrifos-Me, chlorthal-dimethyl, clomazon, cyfluthrin (4isom), cyfluthrin-β, cyhalothrin-λ, cypermethrin (4isom), cypermethrin-α, DDD-op', DDD-pp', DDE-pp', DDT-op, DDT-pp', deltamethrin, diazinon, dibromochloropropane, dichlorvos, dicloran, dieldrin, dimethoate, diphenamid, disulfoton, endosulfan-α, endosulfan-β, endosulfan sulfate, endrin,, etridiazol, famoxadone, fenamidon, fenchlorphos, fenitrothion, fenthion, fenthion sulfone, fenthion sulfoxide, fenvalerate, flucythrinate, flumetralin, fonofos, formothion, HCH-α, HCH-β, HCH-γ, HCH-δ, heptachlor, heptachlor epoxide endo, heptachlor epoxide exo, hexachlorobenzene (HCB), iprodione, isopropalin, malaixon, malathion, methidathion, methoprene, methoxychlor, metolachlor, mevinphos, mirex, nitrofen, parathion (-Et), parathion-Me, pebulate, pendimethalin, permethrin, phorate, phosalone, piperonyl butoxide, pirimiphos-Me, tefluthrin, terbufos, thionazin, tralomethrin, trifluralin	In house E_XM114/ GC-MS/MS, based on SANTE/11312/2021 and EURL-FV M4 method
35. Olive oil, pomace oil and edible plant oils	1. Determination of free fatty acids - Cold method (acidity)	COI/T.20/Doc. No 34
	2. Determination of peroxide value	COI/T.20/Doc. No 35
	3. UV-Spectrophotometric analysis (coefficients K232, K270, ΔK)	COI/T.19/Doc. No 19
	4. Determination of sterols	In house method E_XM079 based on COI/T.20/ Doc. No 26
36. Ceramic articles intended to come in contact with foodstuffs	1. Determination of Specific migration of Lead (Pb)	In house method E_XM060 based on the Article 25 of Food and Beverage Code
	2. Determination of Specific migration of Cadmium (Cd)	In house method E_XM060 based on the Article 25 of Food and Beverage Code

Materials / products tested	Types of test / Properties to be measured	Applied Methods / Techniques to be used
37. Paper - Cardboard	1. Determination of Lead (Pb) content	In house method E_XM051 based on the Article 24 of Food and Beverage Code
	2. Determination of Cadmium (Cd) content	In house method E_XM051 based on the Article 24 of Food and Beverage Code
	3. Determination of Mercury (Hg) content	In house method E_XM085 based on the Article 24 of Food and Beverage Code
	4. Determination of Pentachlorophenol (PCP)	In house method E_XM084 based on 15320: 2011
	5. Determination of extractable metals Lead (Pb) and Cadmium (Cd)	In house method E_XM084 based on BfR XXXVI
	6. Determination of Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS)	In house method E_XM124/ LC-MS/MS
38. Packaging materials intended to come into contact with foodstuffs	1. Overall migration into aqueous food simulants (A, B, C) and in food simulant D1 (50% Ethanol) by total immersion.	EN 1186-3:2022
	2. Overall migration into aqueous food simulants (A, B, C) and in food simulant D1 (50% Ethanol) by cell.	EN 1186-3/2022
	3. Overall migration into aqueous food simulants (A, B, C) and in food simulant D1 (50% Ethanol) by article filling.	EN 1186-3/2022
	4. Overall migration, into simulant D2 (vegetable oil) by total immersion.	EN 1186-2:2022
	5. Overall migration, into simulant D2 (vegetable oil) by cell.	EN 1186-2 /2022
	6. Overall migration, into simulant D2 (vegetable oil) by article filling.	EN 1186-2 /2022
	7. Test methods for 'substitute tests' for overall migration from plastic materials and articles intended to come into contact with fatty foodstuffs using simulant D2 (ethanol 95% and Isooctane) by total immersion, cell and article filling.	EN 1186-3/2022
	8. Overall migration to simulant E (poly (2,6-diphenyl-p-phenylene oxide - Tenax®))	EN 1186-13:2002 & EN 14338:2003
	9. Determination of specific migration of Lead (Pb), and Cadmium (Cd) in simulant B (3% Acetic acid)	In house method E_XM086 based on EN 1186:2022
	10. Determination of specific migration of Phthalates in simulant D2 (Vegetable Oil): DBP: Dibutyl Phthalate BBP: Benzyl-butyl Phthalate DEHP: Bis (2-ethylhexyl) phthalate DEHA: Dicyclohexyl Phthalate	In house method E_XM089 based on EN 1186:2022

Materials / products tested	Types of test / Properties to be measured	Applied Methods / Techniques to be used
	11. Semi-quantitative determination of specific migration of semi-volatile substances in simulant 95% Ethanol.	In house method E_XM090 based on EN 1186:2022
	12 Determination of Oxygen Transmission Rate (OTR)	In house method OE505_19
39. Solid industrial waste and by-products	A12 Test – Flammability (contact with water) / UN Test N.5	In house method E_XM026 based on Council Regulation (EC) No 440/2008 as modified and as in force
40. Waste waters (Processed and non-processed)	1. Determination of Total Suspended Solids (TSS)	In house method E_XM013 based on APHA 2540 D
	2. Determination of Chemical Oxygen Demand (COD)	In house method E_XM018 based on APHA 5220 D
	3. Determination of Biochemical Oxygen Demand (BOD)	In house method E_XM097 based on WTW BOD Application report
	4. Determination of total Nitrogen (N)	In house method E_XM094 based on: Digestion - Analogous to DIN EN ISO 11905-1 H36 & Determination - Analogous to ISO 7890-1, DIN 38405 – D9
	5. Determination of total Phosphorus (P)	In house method E_XM095 based on: Analogous to EPA 365.2+3, APHA 4500-P E & DIN EN ISO 6878 – D11
Microbiological Tests		
1. Foodstuffs	1. Enumeration of beta –glucuronidase – positive <i>Escherichia coli</i>	ISO 16649-2:2001
	2. Enumeration of coagulase – positive staphylococci (<i>Staphylococcus aureus</i> and other species)	ISO 6888-1:2021/Amd 1:2023
	3. Enumeration of Enterobacteriaceae. Colony count technique	ISO 21528-2:2017
	4. Enumeration of the total aerobic microorganisms at 30°C	ISO 4833-1:2013/Amd 1:2022 ISO 4833-2:2013/Amd 1:2022
	5. Detection of <i>Listeria monocytogenes</i>	ISO 11290-1:2017
	6. Detection of <i>Listeria</i> spp.	ISO 11290-1:2017
2. Foodstuffs with $a_w \leq 0,95$	Enumeration of yeasts and moulds	ISO 21527-2:2008
3. Foodstuffs with $a_w > 0,95$	Enumeration of yeasts and moulds	ISO 21527-1:2008

Materials / products tested	Types of test / Properties to be measured	Applied Methods / Techniques to be used
4. Food and animal feed	Detection of <i>Salmonella</i> spp.	ISO 6579-1: 2017/ Amd 1:2020
5. Canned food and similar products, preserved in glass and paper container.	Stability testing	NF V 08 – 408: 1997
6. Foodstuffs, canned food and similar products Ready to eat food	1. Enumeration of total coliform bacteria	ISO 4832:2006
	2. Enumeration of <i>Clostridium perfringens</i>	ISO 15213-2:2023
	3. Enumeration of <i>Clostridia</i> sulfate	ISO 15213-1:2023
	4. Enumeration of <i>Bacillus cereus</i>	ISO 7932:2004/ Amd 1:2020
7. Potable water	1. Enumeration of the total aerobic microorganisms at 22 ± 2 °C and 36 ± 2 °C	ISO 6222:1999
	2. Detection and enumeration of <i>Escherichia coli</i> and total coliform bacteria	ISO 9308-1:2014/Amd.1:2016
	3. Detection and enumeration of <i>Pseudomonas aeruginosa</i>	ISO 16266:2006
	4. Detection and enumeration of intestinal enterococci	ISO 7899-2:2000
8. Faecal materials and samples of the primary production stage	Detection of <i>Salmonella</i> spp.	ISO 6579-1: 2017/ Amd 1:2020
9. Environmental samples – surface samples (swab)	1. Detection of <i>Salmonella</i> spp.	ISO 6579-1: 2017/ Amd 1:2020
	2. Detection of <i>Listeria monocytogenes</i>	ISO 11290-1:2017
	3. Detection of <i>Listeria</i> spp.	ISO 11290-1:2017
Biological Tests		
1. Soya: Seeds, foods (seeds, flour, processed), foods with high fat content (lecithin, unprocessed oils), feeds	Screening method for genetically modified organisms (GMOs), by the detection of CaMV 35S promoter, nopaline synthase terminator (NOS), CTP2-CP4EPS construct, PAT gene and BAR gene.	In-house method E_DNA_ML108/ Real Time PCR based on a) ISO 21569:2005/ Amd1:2013 b) ISO 21570:2005/Amd 1:2013 and c) Grohmann L. et al, J Agric Foods Chem 2009, 57:8913-8920 d) Verginelli D. et al, JSci Foods Agric (2020); 100: 2121-9 DNA extraction with CTAB method (ISO 21571:2005/Amd 1:2013). DNA extraction from Foods with high fat content: hexane method (Wurz A. et al, Dtsch. Lebensm. Rundsch. 1998, 94 pp. 159–161).
2. Maize: Seeds, foods (seeds, flour, processed), feeds		

Materials / products tested	Types of test / Properties to be measured	Applied Methods / Techniques to be used
3. Cotton: Seeds, feeds	Screening method for genetically modified organisms (GMOs), by the detection of CaMV 35S promoter, nopaline synthase terminator (NOS), CTP2-CP4EPSPS construct, PAT gene and BAR gene.	In-house method E_DNA_ML109/ Real Time PCR based on a) ISO 21569:2005/ Amd1:2013 and b) EUR 24526 EN c) Grohmann L. et al, J Agric Foods Chem 2009, 57:8913-8920 d) Verginelli D. et al, JSci Foods Agric (2020); 100: 2121-9 DNA extraction with CTAB method (ISO 21571:2005/Amd 1:2013)
4. Rice: Foods (rice, flour, processed), feeds	Screening method for genetically modified organisms (GMOs), by the detection of CaMV 35S promoter	In-house method E_DNA_ML110/ Real-Time PCR based on: a) ISO 21570:2005/Amd 1:2013 b) CRLVL05/04VP Community Reference Laboratory for GM Foods and Feedss (09/06/06) and DNA extraction with CTAB method (ISO 21571:2005/Amd 1:2013)
5. Maize: Seeds, foods (seeds, flour, processed), feeds	Quantification of CaMV 35S promoter in maize	In-house method E_DNA_ML111/ Real-Time PCR based on ISO 21570:2005/Amd 1:2013. DNA extraction with CTAB method (ISO 21571:2005/Amd 1:2013)
6. Soya: Seeds, foods (seeds, flour, processed), foods with high fat content (lecithin, unprocessed oils), feeds	Quantification of genetically modified Roundup Ready Soya (GTS 40-3-2)	In-house method E_DNA_ML112/ Real-Time PCR based on ISO 21570:2005/Amd 1:2013. DNA extraction with CTAB method (ISO 21571:2005/Amd 1:2013). DNA extraction from Foods with high fat content: hexane method (Wurz A. et al, Dtsch. Lebensm. Rundsch. 1998, 94 pp. 159–161)

Materials / products tested	Types of test / Properties to be measured	Applied Methods / Techniques to be used
7. Soya: Seeds, food (seeds, flour, processed), feed	Detection of MON89788 Soya	E_DNA_ML115/ Real-Time PCR based on CRLVL05/06VP JRC, CRL GMFF: Protocol MON89788 soybean (2008) DNA extraction with CTAB method (ISO 21571:2005) and by using Nucleospin Food Kit
8. Feeds and raw materials for feeds	Detection of ruminant DNA	In-house method E_DNA_ML104/ Real-Time PCR based on EURL-AP Standard Operating Procedures
9. Food, Feeds	1. Detection of Bovine DNA	ISO 20224-1:2020
	2. Detection of Ovine DNA	ISO 20224-2:2020
	3. Detection of Porcine DNA	ISO 20224-3:2020
	4. Detection of Chicken DNA	ISO 20224-4:2020
	5. Detection of Goat DNA	ISO 20224-5:2020
	6. Detection of Horse DNA	ISO 20224-6:2020
	7. Detection of Turkey DNA	ISO 20224-8:2020
10. Food, Feeds	1. Semi-quantitative determination of Bovine DNA	In-house method E_DNA_ML117 based on ISO 20224-1:2020
	2. Semi-quantitative determination of Ovine DNA	In-house method E_DNA_ML117 based on ISO 20224-2:2020
	3. Semi-quantitative determination of Porcine DNA	In-house method E_DNA_ML117 based on ISO 20224-3:2020
	4. Semi-quantitative determination of Chicken DNA	In-house method E_DNA_ML117 based on ISO 20224-4:2020
	5. Semi-quantitative determination of Goat DNA	In-house method E_DNA_ML117 based on ISO 20224-5:2020
	6. Semi-quantitative determination of Horse DNA	In-house method E_DNA_ML117 based on ISO 20224-6:2020
	7. Semi-quantitative determination of Turkey DNA	In-house method E_DNA_ML117 based on ISO 20224-8:2020
Immunochemical Tests		
1. Foods	1. Quantification of gluten	In house method E_DNA_ML101 based on: 1. ELOT EN 15633.01: 2019. 2. Enzyme immunoassay (Ridascreen gliadin, R-Biopharm, AOAC RI 120601)

Materials / products tested	Types of test / Properties to be measured	Applied Methods / Techniques to be used
2. Foods	2. Detection and quantification of hazelnut	In house method E_DNA_ML102 based on: ELOT EN 15633.01:2019, ELOT EN 15633.02:2013
Sensory tests		
1. Packaging Materials	Methods for assessing modifications to the flavor of foodstuffs due to packaging materials	ISO 13302:2003
2. Foodstuffs	Sensory Analysis – Assessment (determination and verification) of the shelf life of foodstuffs	ISO 16779:2015
3. Olive Oil	Organoleptic assessment of virgin olive oil	COI/T.20/Doc. No 15/Rev. 10 2018

Site of assessment: **Laboratory permanent premises, 10 Nikita Str., Piraeus, Greece.**
Approved signatories: **I. Masavetas, M. Vamvaka, Ath. Alexandropoulou, Ap. Enotiadis,
P. Poulimenakos, S. Megremi, I. Vasilakopoulou, A. Haralabakopoulos,
L. Fountas, S. Anagnostou**

This scope of Accreditation replaces the previous one, dated 01.09.2025.
The Accreditation Certificate No. **195-9**, according to ELOT EN ISO/IEC 17025:2017, has been extended until 08.03.2026.

Athens, 29th of September 2025



Konstantinou Evangelos Apostolos
CEO of ESYD