

# INTERNAL TECHNICAL ANNEX AGRIFOOD DEPARTMENT PHYTOCONTROL ANALYTICS France

Version52 - 10December 2021

#### **References:**

Cofrac Technical Annex N° 1-1904 rev. 17

Cofrac Technical Annex N° 1-6066 rev. 19

#### **PHYTOCONTROL LABORATORY (1)**

Parc Scientifique Georges Besse
180, Philippe Maupas Street
30035 NIMES,
under accreditation number 1-1904

#### **PHYTOCONTROL LABORATORY (2)**

Parc Scientifique Georges Besse
70 Allée Graham Bell
30035 NIMES,
under accreditation number 1-6066

**BIOTECHNOLOGIES UNIT (Phytocontrol 1)** 

**ANALYTICAL CHEMISTRY UNIT (Phytocontrol1)** 

MICROBIOLOGY UNIT (Phytocontrol 2)



#### **Pesticide residues**

#### Scope of accreditation No. 1-1904

SPE

**Dispersive SPE** 

LC/MS-MS, GC/MS-MS, GC-MS

Analysis:

#### FLEX3 range

**Animal feed** 

#### General scope

# Food industry / Miscellaneous foods / Physico-chemical analysis CHARACTERISTIC MEASURED OR RESEARCHED Products of plant origin Animal products Pesticide residues and organic contaminants in food, feed and organic of animal origin - LAB GTA 26/99-2 Extraction: Cold solid-liquid Hydrolysis Purification: COLD

<sup>\*</sup>FLEX3 flexible scope: The laboratory is recognised as competent, in the field covered by the general scope, to adopt any recognised method and to develop or implement any other method for which it has ensured validation.



#### **Detailed scope**

## Food industry / Miscellaneous foods / Physico-chemical analysis

Analysis of pesticide residues and organic contaminants in food, feed and organic products of animal origin - LAB GTA 26/99-2

SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Original products plant and animal:  Water-rich products, Oil-rich products, Acidic and water-rich products, Products high in sugar and low in water, Low-fat and low-water products, spices, aromatic and medicinal plants, Alcoholic beverages, Fruit and vegetable juices	Diquat/Paraquat	Preparation/Extraction: Solid / liquid cold extraction Purification: SPE Analysis: LC-MS/MS	Internal method MOC3/20
Non-fatty products of plant origin: Water-rich products Starch-rich products, proteins Acidic products Pigment-rich products	Determination of chlormequat, mepiquat	Extraction: by solvent Analysis: LC-MS-MS	Internal method MOC3/21
Products of plant origin:  Water-rich products  Starch-rich products, proteins  Acidic products  Pigment-rich products	Determination of dithiocarbamate residues	Preparation/Extraction: Hydrolysis  Analysis: Determination of residual CS2 by GC-MS	Internal method MOC3/01
Water-rich products  Acidic and water-rich products  Products high in sugar and low in water  Low water and low fat products	Determination of dithiocarbamate residues by family :  - Dimethyldithiocarbamates  - Ethylenebisdithiocarbamates  - Propylenebisdithiocarbamates	Extraction Cold solid/liquid  Purification: Dispersive SPE  Device: LC-MS/MS	Internal method MOC3/401



SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Products of plant origin:  Water-rich products  Starch-rich products, proteins  Acidic products  Pigment-rich products	Multi-residue determination of pesticides  Organophosphates: Chlorpyriphos ethyl Isofenphos methyl, Malathion, Parathion methyl, Phosalone, Pirimiphos methyl, Tolclophos methyl, Chlorfenvinphos, chlorpyriphosmethyl, dichlorfenthion, ethoprofos, fenchlorfos, fonofos Organochlorines: Chlorpropham, Procymidone, Propyzamide, Vinchlozoline, Myclobutanil, Triadimefon, Triadimenol, 2-4'DDE, 2-4'DDD, 4-4'DDE, 4-4''DDT, chlorobenzylate, fenarimol, fenhexamide, hcb, hch alpha, hch beta, hch delta, mirex oxadiazon, pentachloroanisole, tebufenpyrad Pyrethroids: Bifenthrin, Cyhalothrin Organotin / miscellaneous: Bromopropylate, Cyprodinil, Diphenylamine, Pirimicarb, Propyconazole, Pyrimethanil, Fludioxonil, O-phenylphenol, Oxadixyl, Benalaxyl, bitertanol, carfentrazone-ethyl, chorthal- dimethyl, cyproconazole, dichlofop- methyl, difenoconazole, flusilasole, mepanipyrim, mepronil, penconazole, perthane, proquinazid, pyriproxyfen, tebuconazole Polychlorinated biphenyls (PCBs): PCB 28, PCB 52, PCB 101, PCB 118, PCB 138, PCB 153, PCB180.	Extraction: Cold solid/liquid  Purification: SPE  Analysis: GC/MS-MS	Internal method MOC3/25



SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Products of plant origin: Oil-rich products  Animal products: Dairy products Meat products Fats Fish products Egg products	Multi-residue determination of pesticides  Organophosphates: Chlorfenvinphos, Chlorpyrifos ethyl, Chlorpyrifos methyl, Coumaphos Fenitrothion, Malathion, Methidathion Parathion methyl, Parathion ethyl, Phosalone, Pirimiphos methyl Ethion, Isofenphos methyl Pyridafenthion, Tolclophos methyl Organochlorines: Aclonifen, Chlorpropham, 2,4-DDD 2,4-DDE, 4,4'-DDE, 4,4' DDT, Dieldrin Endosulfan alpha, Endosulfan beta Endosulfan sulphate, HCB, Oxyfluorfen Procymidone, Propyzamide Vinchlozolin, Myclobutanil Carfentrazone ethyl, Cyproconazole Diclofop methyl, Difenoconazole Fenarimol, Penconazole, Tebuconazole Tebufenpyrad Pyrethroids: Bifenthrin, Cyfluthrin, Cyhalothrin Cypermethrin, Deltamethrin Fluvalinate, Tefluthrin, Tetramethrin Organotin / miscellaneous: Bromopropylate, Propyconazole Fludioxonil, Benalaxyl, Cyprodinil Diflufenican, Flusilasole, Mepronil Metalaxyl, Pirimicarb, Proquinazid, Prosulfocarb, Pyriproxifen	Extraction: Cold solid/liquid  Purification: Dispersive SPE  Analysis: GC-MS/MS	Internal method MOC3/26



SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Products of plant origin: Water-rich products Starch-rich products, proteins Acidic products Pigment-rich products Low water and low fat products	Etephon	Extraction: Cold solid/liquid Analysis: LC-MS-MS	Internal method MOC3/27
Products of plant origin: Water-rich products, Acidic and water-rich products, Low water and low fat products High-sugar, low-water products Alcoholic beverages, Fruit and vegetable juices, Baby food	Determination of the content of fentin (expressed as triphenyltin cation), fenbutatin oxide, cyhexatin and azocyclotin.	Extraction: by solvent  Purification: Liquid/solid (dispersive SPE)  Analysis: LC-MS/MS	Internal method MOC3/31
Products of plant origin: Water-rich products Starch-rich products, proteins Acidic products	Determination of the Maleic Hydrazide	Extraction: Cold solid/liquid Analysis: LC-MS/MS	Internal method MOC3/44
Products of plant origin: Water-rich products, Acidic and water-rich products, Products high in sugar and low in water, Low water and fat products, Alcoholic beverages, Fruit and vegetable juices, Baby food	Determination of ethylene thiourea (ETU) and propylene thiourea (PTU) content	Extraction: Cold solid/liquid  Purification: Liquid/liquid  Analysis: LC-MS-MS	Internal method MOC3/45



SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Products of plant origin:  Water-rich products, Acidic and water-rich products, Low water and low fat products High-sugar, low-water products Alcoholic beverages, Fruit and vegetable juices, Sodas	Determination of the 1,4-Dimethylnaphthalene, Acetochlor, Alachlor, Benfluralin, Clomazone, Diflufenican, Ethofumesate, Etofenprox, Fenpropathrin, Fenvalerate, Fluopicolide, Hexazinone, Metolachlor, Permethrin, Piperonyl Butoxide, Pyridaben, Tefluthrin, Terbufos, Terbuthylazine, Triallate, Zoxamide.	Extraction: by solvent  Purification: Liquid/solid (dispersive SPE)  Analysis: GC-MS/MS	Internal method MOC3/55
Products of plant origin : Baby food	Multi-residue determination of pesticides Terbufos, Fipronil, Fipronil desulfinyl, HCB, Haloxyfop 2ethylhexyl, Haloxyfop methyl, Terbufos sulfone, Heptachlor, Heptachlor epoxide cis, Heptachlor epoxide trans Endrin, Disulfoton, Dieldrin, Aldrin, Demeton S Methyl, Nitrofen	Extraction: Cold solid/liquid  Purification: Liquid/Solid (SPE)  Analysis: GC-MS/MS	Internal method MOC3/56



SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Products of plant origin : Baby food	Multi-residue determination of pesticides Haloxyfop (free acid), Terbufos sulfoxide, Ethoprophos, Fensulfothion, Fensulfothion oxon, Fensulfothion oxon sulfone, Fensulfothion sulfone, Disulfoton sulfone, Disulfoton sulfoxide, Cadusafos	Extraction: Cold solid/liquid Analysis: LC-MS/MS	Internal method MOC3/57
Non-fat products of plant origin: Water-rich products, Acidic and water-rich products, Alcoholic beverages, Oil-rich products (oil seeds) Low water and low fat products Miscellaneous products: teas  Animal feed: Fodder, oilcake Compound feed	Determination of the Glyphosate and AMPA	Extraction: Cold solid/liquid Analysis: LC-MS/MS	Internal method MOC3/80
Products of plant origin: Water-rich products Acidic and water-rich products Alcoholic beverages Fruit and vegetable juices	Determination of Fosethyl- Aluminium and Phosphonic Acid content	Extraction: Cold solid/liquid Analysis: LC-MS/MS	Internal method MOC3/89
Products of plant origin: Water-rich products Acidic and water-rich products Products high in sugar and low in water Alcoholic beverages Fruit and vegetable juices	Determination of Perchlorate and Chlorate content	Extraction: Cold solid/liquid Analysis: LC-MS/MS	Internal method MOC3/120
Liquid and powdered whey Liquid and powdered milk	Determination of Perchlorate and Chlorate content	Solid-liquid extraction  Liquid-solid purification (SPE)  LC-MS/MS analysis	Internal method MOC3/424

SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD	
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Non-fatty products of plant origin:  Water-rich products Acidic and water-rich products High sugar, low water products Low water, low fat products Alcoholic beverages Fruit and vegetable juices	Determination of polar residue content: AMPA Etherephon Fosethyl-Aluminium Glufosinate Glufosinate-N-acetyl Glyphosate Maleic hydrazide Phosphonic acid	Extraction: Cold solid/liquid  Purification: Liquid-solid (SPE)  Analysis: LC-MS/MS	Internal method MOC3/414
Products of plant origin: Water-rich products Acidic and water-rich products High sugar, low water products Low water, low fat products Alcoholic beverages Fruit and vegetable juices Oil-rich products Spices Aromatic and medicinal plants: Teas, Flowers and Leaves  Animal products: Meat products Fish products	<b>Determination of polar residue content</b> : Chlorate Perchlorates	Extraction: Cold solid/liquid Purification: Liquid-solid (SPE) Analysis: LC-MS/MS	Internal method MOC3/414
Bee products : Honey Royal jelly Pollen Bees	Multi-residue determination of pesticides:  2,4 DDD, 2, 4DDE, DDE4,4, 44 DDT, Alachlor, Bromopropylate, Chlordane (cis+trans), Chlorobenzilate, Chlorpyriphos ethyl, Chlorpyriphos methyl, Cyhalothrin, Cymiazole, Cypermethrin, Deltamethrin, Dichlobenil Dieldrin, Difenoconazole, Endosulfan alpha, Endosulfan beta, Endrin, Ethion, Fenitrothion, Tau- fluvalinate, HCH alpha, HCH beta, Malathion, Metolachlor, Oxadiazon, Oxyfluorfen Parathion methyl, Permethrin, Pirimiphos methyl, Procymidone, Profenofos, Prothiofos, Quinalfos, Tebufenpyrad, Tetradifon, Trifluralin, Vinchlozolin.	Extraction: Cold solid/liquid  Purification: Dispersive SPE  Analysis: GC-MS/MS	Internal method MOC3/76
SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD



Animal products: Meat products Egg products and by- products	Fipronil, Fipronil sulfone	Preparation / Extraction : Cold solid / liquid Purification : SPE Analysis : GC-MS/MS	Internal method MOC3/183
Animal products: Meat products Egg products and by- products.	Amitraz (including metabolites containing the 2,4 dimethylaniline moiety expressed as amitraz)	Preparation / Extraction : Hydrolysis Cold solid / liquid  Purification : Dispersive SPE  Analysis: LC-MS/MS	Internal method MOC3/184
Original products plant: Water-rich products Acidic and water-rich products  Products rich in sugar and low water content Low-calorie products water and fat Alcoholic beverages Fruit and Vegetable juices Sodas	6-Benzyladenine, Acephate, Acetamiprid, Ametoctradine, Amidosulfuron, Azaconazole, Azimsulfuron, Azinphos-ethyl, Azinphos-methyl, Azoxystrobin, Beflubutamide, Bensulfuronmethyl, Benthiavalicarbisopropyl, Bixafen, Boscalid, Bromacil, Bromuconazole, Bupirimate, Buprofezin, Buturon, Cadusafos, Carbendazim, Carbetamide, Carboxin, Chlorantraniliprole, Chloridazon, Chlorotoluron, Chloroxuron, Chlorsulfuron, Chromafenozide, Cinidonethyl, Cinosulfuron, Clethodim-sulfoxide, Clofentezine, Clothianidin, Cyanazine, Cyantraniliprole, Cyazofamid, Cycluron, Cyflufenamid, Cymoxanil, Cyprosulfamide, Demeton-S, Demeton-S-methylsulfone, Demeton-S-methylsulfoxide, Desmetryn, Difenamide, Diflubenzuron, Dimethenamid- P, Dimethoate, Dimethomorphe, Dinoseb, Dinoterb, Disulfoton-sulfone, Disulfoton-sulfoxide, Diuron, DMST, Dodemorphe, Dodine, Emamectin-benzoate B1a, Emamectin-benzoate B1b, Epoxiconazole, Ethametsulfuron-methyl, Ethidimuron, Ethiprole, Ethirimol, Etoxazole, Fenamiphossulfoxide, Fenbuconazole, Fenamiphos oxon, Fenoxaprop-ethyl, Fenoxycarb, Fenpropidine, Fenpyramazine, Fensulfothion, Fensulfothionsulfone, Fensulfothion-oxonsulfone, Fensulfothionsulfone,	Preparation/ Extraction: Cold solid / liquid Purification: SPE Analysis: LC-MS/MS	Internal method MOC3/407



	Fentilion, Fentilion Sulfone, Fentilion Sulfoxide, Fenuron, Florasulam, Fluazinam, Flufenoxuron, Fluometuron, Fluopyram, Fluoxastrobin, Flupyradifurone, Flupyrsulfuron methyl, Fluquinconazole, Flurtamone, Fluxapyroxad, Foramsulfuron, Forchlorfenuron, Fosthiazate, Fuberidazole, Furametpyr, Halauxifen methyl, Halfenprox, Halosulfuronmethyl, Hexythiazox, Hydramethylnon, Imazalil, Imazamox, Imazaquin, Imazosulfuron, Imidachloprid, Indoxacarb, Iodosulfuronmethyl, Ioxynil, Iprovalicarb, Isazofos, Isocarbophos, Isoprocarb, Isoprothiolane, Isoproturon, Isopyrazam, Isoxaben, Isoxaflutole, Isoxathion, Kresoximmethyl, Lenacil, Linuron, Lufenurone, Mandipropamid, MCPA, Mecarbam, Mesosulfuronmethyl, Metaflumizone, Metamitron, Metconazole		
SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Products of plant origin: Water-rich products Acidic and water-rich products Products rich in sugar and low water content Products low in fat and low in water Alcoholic beverages Fruit and Vegetable juices Sodas	Metrafenone, Metsulfuronmethyl, Mevinphos, Monalide, Monocrotophos, Monolinuron, Monuron, NAD(1-naphthyl acetamide), Napropamide, Neburon, Nicosulfuron, Norflurazon, Novaluron, Ofurace, Omethoate, Orthosulfamuron, Oxamyl, Oxasulfuron, Paclobutrazol, Paraoxon-ethyl, Pencycuron, Penflufen, Penoxsulam, Penthiopyrad, Phenmedipham, Phorate sulfone, Phorate-oxon, Phosphamidon, Phoxim, Picolinafen, Picoxystrobin, Pinoxadene, Pirimicarbdesmethyl, Promecarb, Prometon, Propamocarb, Propaphos, Propaquizafop, Propoxur, Prothioconazoledesthio, Pyraclofos, Pyraclostrobin, Pyraflufenethyl, Pyrimidifen, Pyriofenone, Pyroquilon, Pyroxsulam, Rimsulfuron, Rotenone, Sedaxane, Silthiofam, Simazine, Spinetoram A, Spinetoram B, Spinosad A, Spinosad D, Spirodiclofen, Spiromesifen, Spirotetramate-enolglucoside, Spirotetramate-enolglucoside, Spirotetramate-weonhydroxy, Spirotetramate-monohydroxy,	Preparation/ Extraction: Cold solid / liquid Purification: SPE Analysis: LC-MS/MS	Internal method MOC3/407

Fenthion, Fenthion sulfone, Fenthion sulfoxide,



	Thifensulfuron-methyl, Thiobencarb, Thiodicarb, Thionazin, Thiophanatemethyl, Tricyclazole, Trifloxystrobin, Triflumuron, Triflusulfuron-methyl, Triticonazole, Tritosulfuron, Vamidothion, Warfarin		
aromatic and medicinal plants	Acetamiprid, Ametoctradine Azoxystrobin, Benthiavalicarb-isopropyl, Boscalid, Cyflufenamid Difenamide, Emamectin-benzoate b1a, Fenamidone, Fenpyroximate, Imidachloprid, Iprovalicarb, Isoxathion Linuron, Metconazole, Methoxyfenozide Propaquizafop, Pyraclostrobin Spirodiclofen, Tebufenozide Tetraconazole, Trifloxystrobin Triflumuron	Preparation/ Extraction: Cold solid / liquid Purification: SPE Analysis: LC-MS/MS	Internal method MOC3/417
SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
spices	Acetamiprid, Dimethoate, Ethametsulfuron Imidachloprid, Isoxathion, Metrafenone Paclobutrazol, Pyraclostrobin, Thiacloprid	Preparation/ Extraction: Cold solid / liquid Purification: SPE Analysis: LC-MS/MS	Internal method MOC3/427
Products of plant origin Water-rich products Acidic and water-rich products Products high in sugar and low in water Low water and low fat products Fruit and vegetable juices Alcoholic beverages Sodas	2,4-D 2,4,5-T Diclofop Fluazifop Haloxyfop MCPA MCPB Quizalofop	Extraction: Solvent  Hydrolysis: Base  Analysis: LC-MS/MS	Internal method MOC3/416
Water-rich products Oil-rich products Acidic and water-rich products Products high in sugar and low in water Aromatic and medicinal plants	Matrine	Extraction: Cold solid/liquid  Purification: SPE  Analysis: LC-MS/MS	Internal method MOC3/421



Products of plant origin :			
Oil-rich products			
Products high in sugar and			
low in water		Extraction:	
Low water and low fat		Cold solid / liquid	
products		Hydrolysis	
Spices	Ethylene oxide (sum of ethylene oxide and 2-		Internal method
Aromatic and medicinal	chloroethanol expressed as ethylene oxide)	Purification :	MOC3/428
plants		Dispersive SPE	
Plant extracts			
		Analysis: GC-MS/MS	
Animal products :		-	
High-fat dairy products			
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#### **FLEX3** range

#### General scope

Chemical and biological products/ Bio- active products/ Physico-chemical analysis		Physico-chemical m	ethods: medicinal and aromatic plants
SUBJECT		C MEASURED OR RCHED	PRINCIPLE OF THE METHOD
Citrus essential oils	Pesticide residues		Extraction: Liquid / cold liquid  Analysis: LC-HRMS

<sup>\*</sup>FLEX3 flexible scope: The laboratory is recognised as competent, in the field covered by the general scope, to adopt any recognised method and to develop or implement any other method for which it has ensured validation.



#### **Detailed scope**

#### Chemical and biological products/ Bioactive products/ Physico-chemical analysis

Physico-chemical methods: medicinal and aromatic plants

SUBJECT	CHARACTERISTIC MEASURED OR	PRINCIPLE OF THE	REFERENCE OF
	RESEARCHED	METHOD	THE METHOD
Orange essential oils	Acephate, Ametryn, Atrazine-desethyl, Carboxin, Chloridazone, Cinosulfuron Clodinafop-propargyl, Coumaphos Demeton-S-methylsulfone, Desmetryn, Dichlorobenzamide, Dimethoate Diphenamid, Disulfoton-sulfoxid, Ditalimfos, Edifenphos, Ethametsulfuron-methyl Etrimfos, Fenamiphos sulfoxide, Fensulfothion, Fenthion-sulfon, Fenthion-sulfoxide, Flurtamone, Fosthiazate Heptenophos, Imazamox, Iprobenfos, Isocarbophos Malaoxon, Metalaxyl, Norflurazon, Omethoate, Paraoxon, Phorate-oxon-sulfoxide, Phorate-sulfoxide Phosphamidon, Profenophos, Propachlor, Pyriofenone, Pyroxsulam, Quinmerac,	Preparation/ Extraction : Liquid / cold liquid Analysis: LC-HRMS	Internal method MOC3/408



	Sulfotep, Sulfoxaflor Thiacloprid, Thifensulfuron-methyl, Thiodicarb, Vamidothion Zoxamide		
Bergamot and Lemon essential oils	Acephate, Aldicarb, Atrazine-desethyl Bispyribac, BTS 44595 Chlorfenvinphos (E-Z), Chloridazone Cinosulfuron, Dichlorobenzamide Dimethoate, Diphenamid Ditalimfos, Epoxiconazole Ethametsulfuron-methyl Ethidimuron, Ethiofencarb-sulfone Fensulfothion oxon, Fensulfothion Fenthion-sulfoxide, Fenuron Flutolanil, Isazophos, Isocarbophos Mecarbam, Napropamide Omethoate, Phosmet, Sulfoxaflor Thiacloprid, Thiamethoxam Tricyclazole, Zoxamide	Preparation/ Extraction : Liquid / cold liquid Analysis: LC-HRMS	Internal method MOC3/408



#### **FLEX3** range

#### General scope

Chemical and biological products / Cosmetics and hygiene products / Physico-chemical analysis		Physico-chemical methods	
SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED		PRINCIPLE OF THE METHOD
Finished cosmetic products and cosmetic raw materials	Determination of the content of chemical substances that can cause allergies		Extraction: Cold liquid/liquid Cold solid/liquid  Purification: SPE  Analysis: GC-MS/MS

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**Detailed scope** 



## Chemical and biological products / Cosmetics and hygiene products / Physicochemical analysis

Physico-chemical methods

SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Finished cosmetic products and cosmetic raw materials excluding perfume base (Shower gel, shampoo, soap, deodorant, hair dye, talc, glycerine, glycol, moisturising cream, liniment, cream, foundation, micellar water)	Allergen testing: Citral, Geraniol, Cinnamal (Cinnamaldehyde), Hydroxycitronellal, Anise alcohol (4- methoxybenzyl alcohol), Atranol, Chloratranol	Extraction: Cold liquid/liquid Cold solid/liquid  Purification: SPE  Analysis: LC-MS/MS	Internal method MOC3/127
Finished cosmetic products and cosmetic raw materials excluding perfume base (Shower gel, shampoo, soap, deodorant, hair dye, talc, glycerine, glycol, moisturising cream, liniment, cream, foundation, micellar water)	Allergen testing: Limonene, Benzyl alcohol, Methyl 2- octynoate, Citronellol, Anise alcohol (4-methoxybenzyl alcohol), Cinnamyl alcohol, Eugenol, Isoeugenol, Coumarin, α-Isomethyl ionone, Butylphenyl methylpropional (Lilial), Amyl cinnamal (α-mylcinnamaldehyde), Hydroxyisohexyl 3-cyclohexene carboxaldehyde (Lyral), Hexyl cinnamal (α-Hexylcinnamaldehyde), Benzyl benzoate (Benzyl benzoate), Amylcinnamyl alcohol (alpha-amylcinnamyl alcohol)	Extraction: Cold liquid/liquid Cold solid/liquid  Purification: SPE  Analysis: GC-MS/MS	Internal method MOC3/128



#### **FLEX3** range

#### General scope

## Food industry / Miscellaneous foods / Physico-chemical analysis

Analysis of pesticide residues and organic contaminants in food, feed and organic products of animal origin - LAB GTA 26/99-2

SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD
Products of plant origin  Animal products	Organic contaminant residues	Cold solids/liquid <b>extraction</b> Cold liquid/liquid Solid/liquid hot
Animal feed	Organic contaminant residues	<b>Purification:</b> Liquid-Solid (SPE) <b>Analysis:</b> UFLC, LC-MS/MS, GC-MS/MS Isotope dilution, LC-GC-FID

<sup>\*</sup>FLEX3 flexible scope: The laboratory is recognised as competent, in the field covered by the general scope, to adopt any recognised method and to develop or implement any other method for which it has ensured validation.

#### Detailed scope

## Food industry / Miscellaneous foods / Physico-chemical analysis

Analysis of pesticide residues and organic contaminants in food, feed and organic products of animal origin - LAB GTA 26/99-2

SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Products of plant origin: Water-rich products, Acidic and water-rich products, Alcoholic beverages, Products high in sugar and low in water, Water-poor products and fat, Fruit and vegetable juices, Sodas  Animal products: Dairy products Meat products Fish products	Determination of DDAC and LAC content	Preparation/ Extraction : Cold solid / liquid Analysis: LC-MS-MS	Internal method MOC3/145



#### **Detailed scope**

## Food industry / Miscellaneous foods / Physico-chemical analysis

Analysis of pesticide residues and organic contaminants in food, feed and organic products of animal origin - LAB GTA 26/99-2

SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Products of plant origin: Products rich in oil Products low in water and fat (cereals and derived products, fruit and vegetable powders) Fruit and vegetable juices Alcoholic beverages High sugar, low water content products  Animal feed: Flour of animal origin Compound feed Raw materials of plant origin  Animal products: Dairy products including baby food Egg products Meat products Fish products	Melamine	Extraction: Solvent Analysis: LC-MS/MS	Internal method MOC3/134



#### **FIXED** range

## Food industry / Miscellaneous foods / Physico-chemical analysis

Analysis of pesticide residues and organic contaminants in food, feed and organic products of animal origin - LAB GTA 26/99-2

SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Products of plant origin:  Water-rich products (Water content ≥ 60%) Oil-rich products Acidic and water-rich products Products rich in sugar and low water content Miscellaneous products Alcoholic beverages Fruit and vegetable juices Sodas Animal products: Dairy products	Determination of the content into nitrate, nitrite, chloride, bromide	Preparation / Extraction: Water  Analysis: HPLC/CI (conductimetry)	Internal method MOC3/02

**<u>Fixed scope:</u>** The laboratory is recognised as competent to perform the tests in strict accordance with the methods mentioned in the scope of accreditation. Technical modifications of the procedure are not allowed.



#### **Heavy metals**

Scope of accreditation No. 1-1904

#### **FLEX3** range

#### General scope

#Food / Various foods / Physicochemical analysis		Analysis of trace ele species in food and	ements and minerals and their chemical feed - LAB GTA 45
SUBJECT	CHARACTERISTIC RESEA		PRINCIPLE OF THE METHOD
Food and feed (including baby food)	Metals Minerals		Mineralization Wet process by microwaves under pressure Open system wet track  Analysis: ICP/MS LC-ICP/MS IC-ICP/MS

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#### **Detailed scope**

## **#Food / Various foods / Physicochemical** analysis

Analysis of trace elements and minerals and their chemica species in food and feed - LAB GTA 45

SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
All foodstuffs of animal or vegetable origin including baby food	Arsenic, Lead, Cadmium, Mercury, Antimony, Barium, Boron, Chromium, Cobalt, Copper, Tin, Manganese, Molybdenum, Nickel, Palladium, Platinium, Iridium, Lithium, Rhodium, Ruthenium, Thallium, Vanadium	Mineralization: Wet process (microwave digestion in a closed system) Wet route (open system digestion)  Analysis: ICP-MS	Internal method MOC3/85
Dairy products of which baby food	Aluminium	Mineralization: Wet process (microwave digestion in a closed system) Wet route (open system acid digestion)  Analysis: ICP-MS	Internal method MOC3/85
Alcoholic beverages	Iron	Mineralization: Wet route (open system acid digestion)  Analysis: ICP-MS	Internal method MOC3/85
Cereals Fruit and vegetables Fruit and vegetable juices Medicinal plants Products of the hive Fish products Dairy products of which baby food	Arsenic III, Arsenic V, monomethyl Arsenic, dimethyl Arsenic, Arsenocholine AsC, Arsenobetaine AsB	Mineralization: Wet route (open system acid digestion)  Analysis: LC-ICP/MS	Internal method MOC3/94
Cereal Products Fruit and vegetables Non-alcoholic beverages Sweetened and sugared products Fish products Dairy products Spices and condiments, Aromatic and medicinal plants	Arsenic III, Arsenic V, monomethyl Arsenic, dimethyl Arsenic, Arsenocholine AsC, Arsenobetaine AsB	Mineralization: Wet route (open system acid digestion)  Analysis: IC-ICP/MS	Internal method MOC3/434
Fish products Fruit and vegetables Mushrooms	Mercury II HgII, Methylmercury MeHg	Mineralization : Wet route (open system acid digestion)	Internal method MOC3/144



Medicinal plants Food supplements Animal feed  Human food: Cereal products, Fatty products, Egg products, Dairy products, Meat products, Fish products, Fruit and vegetables, Sweetened and sugared products, Non-alcoholic beverages, alcoholic beverages, Spices and condiments Aromatic and medicinal plants, Dietary and special foods, Compound foods, Baby food	Calcium, Magnesium, Phosphorus, Potassium	Analysis: LC/ICP-MS  Mineralization: Wet route (open system digestion)  Analysis: ICP-MS	Method Internal MOC3/152
Animal feed: Raw materials, Complete or complementary compound feeds			



#### **FLEX 3 range**

#### General scope

Food industry / Miscellaneous foods / Physico-chemical analysis		Determination of mycotoxins and phycotoxins in food and feed - LAB GTA 21/99-1	
SUBJECT		TIC MEASURED OR PRINCIPLE OF THE METH	
Products of plant and animal origin Raw material, derived and/or processed products	Determination of mycotoxins		Extraction: by solvent  Purification: Immunoaffinity SPE  Analysis: UFLC/LC-MS/MS

<sup>\*</sup> Flexible scope FLEX3: The laboratory is recognised as competent, in the field covered by the general scope, to adopt any recognised method and to develop or implement any other method for which it has ensured validation.



#### **Detailed scope**

## Food industry / Miscellaneous foods / Physico-chemical analysis

Determination of mycotoxins and phycotoxins in food and feed - LAB GTA 21/99-1

SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Cereals Oilseeds Nuts Dried fruit Pulses Cereal products Oilseed and nut products Fruit products: Compotes, Juices Alcoholic beverages Coffee/Cocoa Coffee/cocoa products Food and drink for children Spices Animal feed	Determination of ochratoxin A content	Extraction: by solvent Purification: Immunoaffinity Analysis: LC-FLUO	Internal method MOC3/65
Fresh fruit and fruit products including children's food (fruitbased baby food)	Determination of patulin content	Extraction/purification: Solvent/SPE Analysis: LC-MS-MS	Internal method MOC3/37
Cereals Oilseeds Nuts Dried fruit Pulses Cereal products Oilseed and nut products Fruit products: Compotes (including baby food) Food for children Spices Animal feed	Determination of aflatoxin content (B1, B 2,G1, G2)	Extraction: by solvent  Purification: Immunoaffinity  Analysis: LC-FLUO with post-column derivation	Internal method MOC3/71



SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Cereals Cereal products Fresh fruit Fruit products Infant food  Animal feed: Oilseed products: Oilseed cake	Determination of the: Deoxynivalenol (DON), Fumonisins (B+B12, B3), HT 2toxin, T2 toxin, Zearalenone (ZEA), Aflatoxins (B 1,B 2,G1, G2), Ochratoxin A (OTA)	Extraction / purification: Solvent / SPE  Purification : Immunoaffinity  Analysis: UFLC	Internal method MOC3/107
Spices Dry plants Coffee and cocoa products	Determination of aflatoxin (G2, G1, B2, B1) and ochratoxin content	Extraction: by solvent  Purification: Immunoaffinity  Analysis: LC-MS-MS	Internal method MOC3/108
Milk and all milk products including infant food Dairy products containing cereals	Determination of Aflatoxin M1	Extraction: by solvent Purification: Immunoaffinity Analysis: UFLC	Internal method MOC3/110
Cereals	Determination of deoxynivalenol (DON) content	Extraction: by solvent Purification: Immunoaffinity Analysis: UFLC	Internal method MOC3/78
Cereals, Cereal products Pulses (dried vegetables) Fresh vegetables, Leafy vegetables, Animal feed, Oil cake	Determination of the content in <b>Datura alkaloids</b> (atropine and scopolamine)	Extraction: By solvent Purification: SPE Analysis: LC-MS-MS	Internal method MOC3/121
Cereals Cereal products Pulses (dried vegetables) Fresh vegetables Animal feed Oil cake Baby food	Determination of ergot alkaloid content (Ergocristine / Ergocristinine, Ergotamine / Ergotaminine, Ergocryptine / Ergocryptinine, Ergometrine / Ergometrinine, Ergosin / Ergosinine, Ergocornine / Ergocorninine)	Extraction: by solvent Purification: SPE Analysis: UFLC	Internal method MOC3/122
Cereals	Determination of the content of zearalenone (ZEA)	Extraction: by solvent Purification: SPE Analysis: UFLC	Internal method MOC3/60
Cereals Cereal products Fresh fruit Dried fruit Nuts	Determination of the <b>tenuazonic acid</b> content <b>Alternariol Alternariol methyl ether</b>	Extraction Cold solid/liquid Purification d-SPE	Internal method MOC3/447



Fruit products		
Baby food	Analysis	
Oilseeds	LC-MS/MS	
Oilseed and nut products		
Spices		
Animal feed		



#### **Alkaloids**

#### Scope of accreditation No. 1-1904

#### FLEX3 range

#### General scope

### Food industry / Miscellaneous foods / Physico-chemical analysis

Analysis of pesticide residues and organic contaminants in food, feed and organic products of animal origin - LAB GTA 26/99-2

SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD
Products of plant origin Animal products Animal feed	Organic contaminant residues	Extraction: Cold solid/liquid Cold liquid/liquid Solid/liquid hot  Purification: Liquid-Solid (SPE)  Analysis: UFLC, LC-MS/MS, GC-MS/MS Isotope dilution, LC-GC-FID

<sup>\*</sup>FLEX3 flexible scope: The laboratory is recognised as competent, in the field covered by the general scope, to adopt any recognised method and to develop or implement any other method for which it has ensured validation.

#### **Detailed scope**

## Food industry / Miscellaneous foods / Physico-chemical analysis

Analysis of pesticide residues and organic contaminants in food, feed and organic products of animal origin - LAB GTA 26/99-2

SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Spices	Piperine	Preparation/Extraction: Cold solid/liquid Purification: SPE Analysis: LC-MS/MS	Internal method MOC3/51
Potato	Chaconine and solanine	Preparation/Extraction: Cold solid/liquid Analysis: LC-MS/MS	Internal method MOC3/50



#### General scope

## Food industry / Miscellaneous foods / Physico-chemical analysis

Determination of mycotoxins and phycotoxins in food and feed - LAB GTA 21/99-1

SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD
Products of plant and animal origin Raw material, derived and/or processed products	Determination of mycotoxins	Extraction: by solvent  Purification: Immunoaffinity SPE  Analysis: UFLC/LC-MS/MS

<sup>\*</sup>FLEX3 flexible scope: The laboratory is recognised as competent, in the field covered by the general scope, to adopt any recognised method and to develop or implement any other method for which it has ensured validation.

#### **Detailed scope**

## Food industry / Miscellaneous foods / Physico-chemical analysis

Determination of mycotoxins and phycotoxins in food and feed - LAB GTA 21/99-1

SUBJECT	CHARACTERISTIC MEASURED OR	PRINCIPLE OF THE	REFERENCE OF
	RESEARCHED	METHOD	THE METHOD
Original products plant and animal: Leafy vegetables Cereals and cereal products Aromatic and medicinal plants Food supplements Spices Hive products (Honey, Pollen, Royal Jelly) Liquid teas and infusions for infants and young children.	Echimidine, Echimidine-N-oxide, (Z)-Erucifoline, (Z)-Erucifoline-N-oxide, Europine, Europine-N-oxide, Heliotrine, Heliotrine-N-oxide, Heliosupine, Heliosupine N-oxide, Integerrimine, Intermedine, (Intermedine-N-oxide+Indicine-N-oxide+Echinatine-N-oxide), Jacobine, Jacobine-N-oxide, Lasiocarpine Lasiocarpine-N-oxide, (Lycopsamine+Indicine+Echinatine+ Rinderine), Lycopsamine-N-oxide, Monocrotaline, Monocrotaline-N-oxide, (Retrorsine+Usaramine), (Retrorsine-N-oxide+Usaramine-N-Oxide), Rinderine-N-oxide, Senecionine, (Senecionine-N-oxide+Integerrimine-N-oxide), Senkirkine, (Seneciphylline+Spartioidine), (Seneciphylline-N-oxide+ Spartioidine N-oxide), Senecivernine, Senecivernine-N-oxide, Trichodesmin	Preparation/Extraction: By solvent  Purification: SPE  Analysis: LC-MS/MS	Internal method MOC3/123



**GMO** 

Scope of accreditation No. 1-1904

#### **FLEX3** range

#### General scope

Agri-food / Plants / Molecular genetics	Analyses related to	Analyses related to genetically modified organisms - GMOs			
SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD			
Raw products Processed products Cereal products Sweetened and sugared products Animal feed	Maize Target PCR plant species PCR target of a GMO sequence: - screening sequence - specific event sequence	Homogenisation / Grinding  Extraction  Real-time PCR  Qualitative and quantitative testing			
Raw products Processed products Cereal products Sweetened and sugared products Animal feed	Soya Target PCR plant species PCR target of a GMO sequence: - screening sequence - specific event sequence	Homogenisation / Grinding  Extraction  Real-time PCR  Qualitative and quantitative testing			
Raw products (seeds, grains, flour, etc.) Processed products Cereal products Sweetened and sugared products Animal feed	Rape Target PCR plant species PCR target of a GMO sequence: - screening sequence - specific event sequence	Homogenisation / Grinding  Extraction  Real-time PCR  Qualitative and quantitative testing			

<sup>\*</sup>FLEX3 flexible scope: The laboratory is recognised as competent, in the field covered by the general scope, to adopt any recognised method and to develop or implement any other method for which it has ensured validation.



#### **Detailed scope**

## Agri-food / Plants / Molecular genetics

Analyses related to genetically modified organisms - GMOs

SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	FIELD OF APPLICATION	MEASUREM ENT RANGE	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Plant species Maize	Plant species specific PCR target: ADH	Raw maize products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative/ quantitative	Homogenisation/crushing Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR qualitative/quantit ative	Internal method adapted from standards NF EN ISO21569, 24276and 2157021571 and their respective amendments on MON 810, GA21, NK and603 MON 863
Plant species Maize	GMO sequence- specific PCR target PS screening35	Raw maize products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative/ quantitative	Homogenisation/ crushing Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method adapted from standards NF EN ISO21569, 24276and 2157021571 and their respective amendments on MON 810, NK 603 and MY 863
Plant species Maize	GMO sequence- specific PCR target Tnos screening	Raw maize products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative/ quantitative	Homogenisation/ crushing Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method adapted from standards NF EN ISO21569, 24276and 2157021571 and their respective amendments on maize, GA21, NK60 3 and MON 863



SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	FIELD OF APPLICATION	MEASUREM ENT RANGE	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Plant species Maize	GMO sequence- specific PCR target Event specific identification MON810	Raw maize products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative	Homogenisation/ crushing Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method adapted from standards NF EN ISO 21569, 24276, 21570 and 21571 and their respective amendments on MON 810 maize
Plant species Maize	PCR target GMO sequence specific Event specific identification MON863	Raw maize products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative/ quantitative	Homogenisation/ crushing Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method adapted from standards NF EN ISO21569, 24276and 2157021571 and their respective amendments on MON 863  MOC/3103
Plant species Maize	GMO sequence specific PCR target NK specific event identification603	Raw maize products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative/ quantitative	Homogenisation/ crushing Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method adapted from standards NF EN ISO21569, 24276and 2157021571 and their respective amendments on NK maize603
Plant species Maize	GMO sequence- specific PCR target Event specific identification GA21	Raw maize products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative	Homogenisation/ crushing Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method adapted from standards NF EN ISO 21569, 24276, 21570 and 21571 and their respective amendments on GA21 maize MOC3/103
Plant species Maize	GMO sequence- specific PCR target Event specific identification Bt11	Raw maize products (seeds, grains, flour) Processed products Cereal products, Sweetened and	Qualitative	Homogenisation/ crushing Manual DNA extraction by silica column adsorption or semi-automated	Internal method adapted from standards NF EN ISO 21569, 24276, 21570 and 21571 and their respective



		sugared products, Animal feed		DNA extraction by magnetic beads Real-time PCR	amendments on Bt11 maize MOC3/103
Plant species Maize	GMO sequence- specific PCR target Specific event identification Mon88017	Raw maize products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative/ quantitative	Homogenisation/ crushing Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method adapted from standards NF EN ISO 21569, 24276, 21570 and 21571 and their respective amendments on Mon88017 maize MOC3/103
Plant species Maize	GMO sequence- specific PCR target Event specific identification T25	Raw maize products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative	Homogenisation/ crushing Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method adapted from the standards Validation according to NF EN ISO 21569, 24276, 21570 and 21571 and their respective amendments on T25 corn MOC3/103
Plant species Maize	GMO sequence- specific PCR target Event specific identification TC1507	Raw maize products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative	Homogenisation/crushing Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method adapted from standards NF EN ISO 21569, 24276, 21570 and 21571 and their respective amendments on maize TC1507 MOC3/103
Plant species Maize	GMO sequence specific PCR target Event specific identification: DAS-40278-9	Raw maize products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative	Homogenisation/ crushing Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method adapted from NF EN ISO 21569, 24276, 21570 and 21571 and their respective amendments MOC3/103
Plant species Maize	GMO sequence specific PCR target Event specific identification: DAS-59122-7	Raw maize products (seeds, grains, flour) Processed products	Qualitative	Homogenisation/ crushing Manual DNA extraction by silica column adsorption or semi-automated	Internal method adapted from NF EN ISO 21569, 24276, 21570 and 21571 and their respective amendments MOC3/103



		Cereal products, Sweetened and sugared products, Animal feed		DNA extraction by magnetic beads Real-time PCR	
Plant species Maize	GMO sequence specific PCR target Event specific identification: MIR162	Raw maize products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative	Homogenisation/ crushing Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method adapted from NF EN ISO 21569, 24276, 21570 and 21571 and their respective amendments MOC3/103
Plant species Maize	GMO sequence specific PCR target Event specific identification: MIR604	Raw maize products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative	Homogenisation/ crushing Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method adapted from NF EN ISO 21569, 24276, 21570 and 21571 and their respective amendments MOC3/103
Plant species Maize	GMO sequence specific PCR target Event specific identification: My89034	Raw maize products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative	Homogenisation/ crushing Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method adapted from NF EN ISO 21569, 24276, 21570 and 21571 and their respective amendments MOC3/103
Plant species Maize	GMO sequence specific PCR target Event specific identification: VCO-01981-5	Raw maize products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative	Homogenisation/ crushing Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method adapted from NF EN ISO 21569, 24276, 21570 and 21571 and their respective amendments MOC3/103
Plant species Maize	GMO sequence specific PCR target Event specific identification: Mon87427	Raw maize products (seeds, grains, flour) Processed products Cereal products, Sweetened and	Qualitative	Homogenisation/ crushing Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method adapted from NF EN ISO 21569, 24276, 21570 and 21571 and their respective amendments MOC3/103



		sugared products, Animal feed			
Plant species Maize	GMO sequence specific PCR target Event specific identification: MON87403	Raw maize products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative	Homogenisation/ crushing Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method adapted from NF EN ISO 21569, 24276, 21570 and 21571 and their respective amendments MOC3/103
Plant species Maize	GMO sequence specific PCR target Event specific identification: MON87460	Raw maize products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative	Homogenisation/ crushing Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method adapted from NF EN ISO 21569, 24276, 21570 and 21571 and their respective amendments MOC3/103
Plant species Maize	GMO sequence specific PCR target Event specific identification: MON87411	Raw maize products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative	Homogenisation/ crushing Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method adapted from NF EN ISO 21569, 24276, 21570 and 21571 and their respective amendments MOC3/103
Plant species Maize	GMO sequence specific PCR target Event specific identification: DP-4114-3	Raw maize products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative	Homogenisation/ crushing Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method adapted from NF EN ISO 21569, 24276, 21570 and 21571 and their respective amendments MOC3/103



Plant species Maize	GMO sequence specific PCR target Event specific identification: MZHGJG0	Raw maize products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative	Homogenisation/ crushing Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method adapted from NF EN ISO 21569, 24276, 21570 and 21571 and their respective amendments MOC3/103
Plant species Maize	GMO sequence specific PCR target Event specific identification: 5307	Raw maize products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative	Homogenisation/ crushing Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method adapted from NF EN ISO 21569, 24276, 21570 and 21571 and their respective amendments MOC3/103
Plant species Maize	GMO sequence specific PCR target Event specific identification: MZIR098	Raw maize products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative	Homogenisation/ crushing Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method adapted from NF EN ISO 21569, 24276, 21570 and 21571 and their respective amendments MOC3/103



SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	FIELD OF APPLICATION	MEASUREME NT RANGE	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Plant species Soya	Plant species specific PCR target: Lectin	Raw soybean products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative/ quantitative	Homogenisation/ crushing Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method adapted from standards NF EN ISO21569, 24276and 2157021571 and their respective amendments on soybeans RRS, RRS2 MOC/3103
Plant species Soya	GMO sequence- specific PCR target PS screening35	Raw soybean products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative/ quantitative	Homogenisation/ crushing Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method adapted from standards NF EN ISO21569, 24276and 2157021571 and their respective amendments on soybean RHA MOC3/103
Plant species Soya	GMO sequence- specific PCR target Tnos screening	Raw soybean products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative/ quantitative	Homogenisation/ crushing Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method adapted from standards NF EN ISO21569, 24276and 2157021571 and their respective amendments on soybean RHA MOC3/103
Plant species Soya	GMO sequence specific PCR target Event specific identification RRS	Raw soybean products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative/ quantitative	Homogenisation/ crushing Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method adapted from standards NF EN ISO21569, 24276and 2157021571 and their respective amendments on soybean RHA MOC3/103
Plant species Soya	GMO sequence- specific PCR target Event specific identification RRS2	Raw soybean products (seeds, grains, flour) Processed products Cereal products, Sweetened and	Qualitative/ quantitative	Homogenisation/ crushing Manual DNA extraction by silica column adsorption or semi-automated DNA extraction	Internal method adapted from standards NF EN ISO 21569, 24276, 21570 and 21571 and their respective



		sugared products, Animal feed		by magnetic beads Real-time PCR	amendments on soybean RRS2 MOC3/103
Plant species Soya	GMO sequence- specific PCR target Event specific identification FG72	Raw soybean products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative/ quantitative	Homogenisation/ crushing Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method adapted from standards NF EN ISO 21569, 24276, 21570 and 21571 and their respective amendments on soybeans FG72 MOC3/103
Plant species Soya	GMO sequence- specific PCR target Specific event identification Mon87701	Raw soybean products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative	Homogenisation/ crushing Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method adapted from standards NF EN ISO 21569, 24276, 21570 and 21571 and their respective amendments on Mon87701 soybeans MOC3/103
Plant species Soya	GMO sequence- specific PCR target Event specific identification A2704- 12	Raw soybean products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative	Homogenisation/ crushing Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method adapted from standards NF EN ISO 21569, 24276, 21570 and 21571 and their respective amendments on soybean A2704-12 MOC3/103



		Raw soybean			
Plant species Soya	GMO sequence specific PCR target Event specific identification DAS-81419	products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative	Homogenisation/grin ding Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method adapted from NF EN ISO 21569, 24276, 21570 and 21571 and their respective amendments MOC3/103
Plant species Soya	GMO sequence specific PCR target Event specific identification MON87751	Raw soybean products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative	Homogenisation/grin ding Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method adapted from NF EN ISO 21569, 24276, 21570 and 21571 and their respective amendments MOC3/103
Plant species Soya	GMO sequence specific PCR target Event specific identification DAS-68416-4	Raw soybean products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative	Homogenisation/grin ding Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method adapted from NF EN ISO 21569, 24276, 21570 and 21571 and their respective amendments MOC3/103
Plant species Soya	GMO sequence specific PCR target Event specific identification DAS-44406-6	Raw soybean products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative	Homogenisation/grin ding Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method adapted from NF EN ISO 21569, 24276, 21570 and 21571 and their respective amendments MOC3/103
Plant species Soya	GMO sequence specific PCR target Event specific identification SYHTØH2	Raw soybean products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative	Homogenisation/grin ding Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method adapted from NF EN ISO 21569, 24276, 21570 and 21571 and their respective amendments MOC3/103



Plant species Soya	GMO sequence specific PCR target Event specific identification GMB151	Raw soybean products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative	Homogenisation/grin ding Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method adapted from NF EN ISO 21569, 24276, 21570 and 21571 and their respective amendments MOC3/103
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SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	FIELD OF APPLICATION	MEASURE MENT RANGE	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Plant species Rape	Rape Plant species specific PCR target: CRUA	Raw rapeseed products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative / Quantitati ve	Homogenisation/grin ding Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method MOC3/103



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Plant species Rape	Rape P35S screening	Raw rapeseed products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative	Homogenisation/grin ding Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method MOC3/103
Plant species Rape	Rape TNOS screening	Raw rapeseed products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative	Homogenisation/grin ding Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method MOC3/103
Plant species Rape	Rape GMO sequence- specific PCR target Event specific identification : 73496	Raw rapeseed products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative	Homogenisation/grin ding Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method MOC3/103
Plant species Rape	Rape GMO sequence- specific PCR target Event specific identification : MON88302	Raw rapeseed products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative	Homogenisation/grin ding Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method MOC3/103
Plant species Rape	Rape GMO sequence- specific PCR target Event specific identification : MS1	Raw rapeseed products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared	Qualitative	Homogenisation/grin ding Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method MOC3/103



		<u> </u>			
		products, Animal feed			
Plant species Rape	Rape GMO sequence- specific PCR target Event specific identification: MS8	Raw rapeseed products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative	Homogenisation/grin ding Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method MOC3/103
Plant species Rape	Rape GMO sequence- specific PCR target Event specific identification : RF1	Raw rapeseed products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative	Homogenisation/grin ding Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method MOC3/103
Plant species Rape	Rape GMO sequence- specific PCR target Event specific identification: RF3	Raw rapeseed products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative	Homogenisation/grin ding Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method MOC3/103
Plant species Rape	Rape GMO sequence- specific PCR target Event specific identification: RT/GT73	Raw rapeseed products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative	Homogenisation/grin ding Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method MOC3/103



Plant species Rape	Rape GMO sequence- specific PCR target Event specific identification: T45	Raw rapeseed products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative	Homogenisation/grin ding Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method MOC3/103
Plant species Rape	Rape GMO sequence- specific PCR target Event specific identification: TOPAS 19-2	Raw rapeseed products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative	Homogenisation/grin ding Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method MOC3/103
Plant species Rape	Rape GMO sequence- specific PCR target Event specific identification: RF2	Raw rapeseed products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative	Homogenisation/grin ding Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method MOC3/103
Plant species Rape	Rape GMO sequence- specific PCR target Event specific identification: Oxy-235	Raw rapeseed products (seeds, grains, flour) Processed products Cereal products, Sweetened and sugared products, Animal feed	Qualitative	Homogenisation/grin ding Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR	Internal method MOC3/103



**Allergens** 

Scope of accreditation No. 1-1904

# **FLEX3** range

# General scope

# Food / Allergens / Molecular genetics

SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD
Cereal products Fruit and vegetables Sweetened and sugared products Coffee, Tea and Infusions Dairy products Fatty products Meat products Alcoholic and non-alcoholic beverages Spices Compound Foods Baby food Nutrition products	Detection of target DNA sequence of a plant or animal species (species identification or allergy-prone) detection Simplex or duplex	Grinding / Homogenisation  Manual DNA extraction by silica column adsorption  Semi-automated DNA extraction with magnetic beads  Real-time PCR amplification (qualitative method)

<sup>\*</sup>FLEX3 flexible scope: The laboratory is recognised as competent, in the field covered by the general scope, to adopt any recognised method and to develop or implement any other method for which it has ensured validation.



# Detailed scope

# Food / Allergens / Molecular genetics

SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Raw cereal products Processed cereal products Fruit and vegetables Dairy products Fatty products Meat products Alcoholic beverages Non-alcoholic beverages Coffee, tea, infusion Spices Compound feed Baby food Nutrition products Sweetened and sugared products	Specific target DNA sequence of <u>:</u> cashew nut: Ana o3 2S albumin	Milling / Homogenisation Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR amplification (qualitative method)	Internal method:  MOC3/115  Grinding / Homogenisation DNA extraction: NucleoSpin®Plant II or NucleoMagPLant II (Macherey-Nagel) Real-time PCR amplification
Raw cereal products Processed cereal products Fruit and vegetables Dairy products Fatty products Meat products Alcoholic beverages Non-alcoholic beverages Coffee, tea, infusion Spices Compound feed Baby food Nutrition products Sweetened and sugared products	Specific target DNA sequence of <u>:</u> the <b>nut</b> : Vicilin-like seed storage protein	Milling / Homogenisation Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR amplification (qualitative method)	Internal method:  MOC3/115  Grinding / Homogenisation  DNA extraction: NucleoSpin®Plant II or NucleoMagPLant II (Macherey-Nagel)  Real-time PCR amplification
Raw cereal products Processed cereal products Fruit and vegetables Fatty products Meat products Alcoholic beverages Non-alcoholic beverages Coffee, tea, infusion	Specific target DNA sequence of <u>:</u> hazelnut: Cor a 1	Milling / Homogenisation Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR amplification (qualitative method)	Internal method:  MOC3/115  Grinding /  Homogenisation  DNA extraction:  NucleoSpin®Plant II  or NucleoMagPLant  II (Macherey-Nagel)



Spices: turmeric and paprika Compound feed Baby food Nutrition products Sweetened and sugared products			Real-time PCR amplification
Raw cereal products Processed cereal products Fruit and vegetables Fatty products Alcoholic beverages Non-alcoholic beverages Coffee, tea, infusion Sweetened and sugared products	Specific target DNA sequence of <u>:</u> <b>almond</b> : prunin 1 precursor	Milling / Homogenisation Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR amplification (qualitative method)	Internal method:  MOC3/115  Grinding / Homogenisation  DNA extraction: NucleoSpin®Plant II or NucleoMagPLant II (Macherey-Nagel) Real-time PCR amplification
Raw cereal products Processed cereal products Fatty products: sunflower oil and butter Alcoholic beverages Non-alcoholic beverages Coffee, tea, infusion: tea and jasmine flower Sweetened and sugared products	Specific target DNA sequence of <u>:</u> <b>peanut</b> : Arah gene1	Milling / Homogenisation Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR amplification (qualitative method)	Internal method:  MOC3/115  Grinding / Homogenisation  DNA extraction: NucleoSpin®Plant II or NucleoMagPLant II (Macherey-Nagel) Real-time PCR amplification
Raw cereal products Processed cereal products Fatty products Alcoholic beverages Non-alcoholic beverages Coffee, tea, infusion Sweetened products: cake and cake mix	Specific target DNA sequence of <u>:</u> sesame: 2S albumin	Milling / Homogenisation Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR amplification (qualitative method)	Internal method:  MOC3/115  Grinding /  Homogenisation  DNA extraction:  NucleoSpin®Plant II  or NucleoMagPLant  II (Macherey-Nagel)  Real-time PCR  amplification



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Raw cereal products Processed cereal products Fruit and vegetables Dairy products Fatty products Meat products Alcoholic beverages Non-alcoholic beverages Coffee, tea, infusion Spices Compound feed Baby food Diet foproducts Sweetened and sugared products	Specific target DNA sequence of <u>:</u> <b>pecan</b> : Vicilin-like seed storage protein	Milling / Homogenisation Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR amplification (qualitative method)	Internal method:  MOC3/115  Grinding / Homogenisation  DNA extraction: NucleoSpin®Plant II or NucleoMagPLant II (Macherey-Nagel)  Real-time PCR amplification
Raw cereal products Processed cereal products Dairy products Fatty products Meat products Alcoholic beverages Non-alcoholic beverages Coffee, tea, infusion Compound feed Baby food Nutrition products Sweetened and sugared products	Specific target DNA sequence of <u>:</u> soybean: lectin	Milling / Homogenisation Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR amplification (qualitative method)	Internal method:  MOC3/115  Grinding / Homogenisation  DNA extraction: NucleoSpin®Plant II or NucleoMagPLant II (Macherey-Nagel) Real-time PCR amplification
Raw cereal products Processed cereal products Fatty products Alcoholic beverages Coffee, tea, infusion Baby food Sweetened and sugared products	Specific target DNA sequence of <u>:</u> <b>lupin</b> : conglutin alpha mRNA	Milling / Homogenisation Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR amplification (qualitative method)	Internal method:  MOC3/115  Grinding / Homogenisation  DNA extraction: NucleoSpin®Plant II or NucleoMagPLant II (Macherey-Nagel) Real-time PCR amplification
Raw cereal products Processed cereal products Fruit and vegetables Dairy products Fatty products Alcoholic beverages: beer and brandy Non-alcoholic beverages Spices	Specific target DNA sequence of <u>:</u> <b>celery</b> : ribosomal RNA	Milling / Homogenisation Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR amplification (qualitative method)	Internal method:  MOC3/115  Grinding / Homogenisation  DNA extraction: NucleoSpin®Plant II or NucleoMagPLant II (Macherey-Nagel) Real-time PCR amplification



Compound feed Baby food Sweetened and sugared products			
Raw cereal products Processed cereal products Fruit and vegetables Fatty products Alcoholic beverages Non-alcoholic beverages Coffee, tea, infusion Compound feed Baby food Sweetened and sugared products	Specific target DNA sequence of <u>:</u> <b>Brazil nuts</b> : 2S albumin (ber e1)	Milling / Homogenisation Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR amplification (qualitative method)	Internal method:  MOC3/115  Grinding /  Homogenisation  DNA extraction:  NucleoSpin®Plant II  or NucleoMagPLant  II (Macherey-Nagel)  Real-time PCR  amplification
Raw grain products: soybeans and barley Processed cereal products Fruit and vegetables Sweetened and sugared products	Specific target DNA sequence of <u>:</u> the <b>pistachio</b> : COR gene dehydrin	Milling / Homogenisation Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR amplification (qualitative method)	Internal method:  MOC3/115  Grinding /  Homogenisation  DNA extraction:  NucleoSpin®Plant II  or NucleoMagPLant  II (Macherey-Nagel)  Real-time PCR  amplification
Raw cereal products Processed cereal products Fruit and vegetables Dairy products Fatty products Meat products Alcoholic beverages Non-alcoholic beverages Coffee, Tea, Infusion Spices Compound feed Baby food Nutrition products Sweetened products: chocolate powder	Specific target DNA sequence of <u>:</u> <b>Macadamia nut</b> : vicillin precursor	Milling / Homogenisation Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR amplification (qualitative method)	Internal method:  MOC3/115  Grinding /  Homogenisation  DNA extraction:  NucleoSpin®Plant II  or NucleoMagPLant  II (Macherey-Nagel)  Real-time PCR  amplification
SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD



Raw cereal products Processed Cereal Products Dairy products Fatty products Meat products Alcoholic beverages Non-alcoholic beverages Coffee, tea, herbal tea Spices Compound foods Infant food Nutrition products	Mustard-specific target DNA sequence: MADS D (white mustard) and reverse transcriptase from gypsy-like retroelement (yellow/black mustard)	Milling / Homogenisation Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time duplex PCR amplification qualitative method	Internal method:  MOC3/115  Grinding /  Homogenisation  DNA extraction:  NucleoSpin®Plant II  or NucleoMagPLant  II (Macherey-Nagel)  Real-time PCR  amplification
Raw cereal products Processed Cereal Products Dairy products Fatty products Meat products Alcoholic beverages Non-alcoholic beverages Coffee, tea, herbal tea Spices Compound foods Infant food Nutrition products	<b>White mustard</b> specific target DNA sequence: MADS D	Milling / Homogenisation Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time duplex PCR amplification qualitative method	Internal method:  MOC3/115  Grinding /  Homogenisation  DNA extraction:  NucleoSpin®Plant II  or NucleoMagPLant  II (Macherey-Nagel)  Real-time PCR  amplification
Raw cereal products Processed Cereal Products Dairy products Fatty products Meat products Alcoholic beverages Non-alcoholic beverages Coffee, tea, herbal tea Spices Compound foods Infant food Nutrition products	Yellow/black mustard specific target DNA sequence: reverse transcriptase from gypsy-like retroelement	Milling / Homogenisation Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time duplex PCR amplification qualitative method	Internal method:  MOC3/115  Grinding /  Homogenisation  DNA extraction:  NucleoSpin®Plant II  or NucleoMagPLant  II (Macherey-Nagel)  Real-time PCR  amplification
Raw grain products Alcoholic beverages Compound feed	<b>Mollusc-specific</b> target DNA sequence not specified by the PCR kit supplier	Milling / Homogenisation Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Amplification by real-time PCR real time qualitative method	Internal method  MOC3/115:  Milling /  Homogenisation  DNA extraction:  NucleoSpin®Plant I  or  NucleoMag®Plant II  (Macherey-Nagel)  Real time PCR



			amplification
Raw Cereal Products Processed grain products Alcoholic beverages Non-alcoholic beverages Compound foods	<b>Fish-specific</b> target DNA sequence: 18S RNA	Milling / Homogenisation Manual DNA extraction by silica column adsorption or semi-automated DNA extraction by magnetic beads Real-time PCR amplification qualitative method	Internal method MOC3/115: Grinding / Homogenisation: IC3/01-01.D DNA extraction: NucleoSpin®Plant II or NucleoMag®Plant II (Macherey-Nagel) Real time PCR amplification



# **FLEX3** range

# General scope

Food / Allergens / Immunology					
SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD			
Cereal products					
Alcoholic and non-alcoholic beverages					
Compound feed					
Meat products					
Fish products					
Sweet products	allergenic proteins	Grinding / Homogenisation			
Dairy products	anergeme proteins	Protein extraction ELISA			
Spices and herbs					
Baby food					
Dietary food, diet and special food					
Dried fruit					

<sup>\*</sup>FLEX3 flexible scope: The laboratory is recognised as competent, in the field covered by the general scope, to adopt any recognised method and to develop or implement any other method for which it has ensured validation.



# Detailed scope

# Food / Allergens / Immunology

Preparations for sauces Pizzas Breadcrumbs Cereal and vegetable purée, ravioli  Spices and herbs  Dietary food, diet and special food: Soy-based dairy substitutes  Diet and special food: yeast and maltodextrin  Compound food: preparation for sauces (rehydration powders)  Cereal products: starches  Alcoholic beverages: beer, wine  ELISA  Gliadin (R. BIOPHARM)  Gliadin (R. BIOPHARM)  Milling/Homogenisation Protein extraction ELISA  Milling/Homogenisation Protein extraction ELISA  Gliadin (R. BIOPHARM)	SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Compound food: preparation for sauces (rehydration powders)  Cereal products: starches  Alcoholic beverages: beer, wine  Detection and quantification of gluten  Detection and quantification of gluten  Milling/Homogenisation Protein extraction ELISA  ELISA  Milling/Homogenisation Protein extraction ELISA  Gliadin Competitive (R. BIOPHARM)	Breakfast cereals Raw cereals and primary products wheat, rye, barley, oats, spelt and their hybrid strains, rice, sorghum, quinoa, lentils, chickpeas, flour and derivatives, cereal flakes, tapioca, buckwheat, brewer's yeast, guar gum.  Compound feeds: Baking mix Preparations for sauces Pizzas Breadcrumbs Cereal and vegetable purée, ravioli  Spices and herbs  Dietary food, diet and special food:		Protein extraction	MOC3/119 according to supplier kit: R7001 RIDASCREEN® Gliadin
bany products: cheese	Compound food: preparation for sauces (rehydration powders)  Cereal products: starches  Alcoholic beverages: beer,	·	Protein extraction	MOC3/149 Supplier kit: R7021 RIDASCREEN® Gliadin Competitive

SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
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Fish products: Fresh and canned fish  Alcoholic beverages: Wine	Histamine detection	Grinding / Homogenisation  Protein extraction  ELISA	Internal method  MOC3/135  according to  supplier kit:  R1601 RIDASCREEN®  Histamin  (R. BIOPHARM)
Non-alcoholic beverages: Almond milk Soy milk Fruit juice  Cereal products: Raw cereals and primary products Puffed cereals Cereal products containing chocolate  Sweet products: Sorbets & water ice  Compound feed Cereal and vegetable dishes Babyfood with cereals and vegetables  Dietary food, diet and special food: Soy-based dairy substitutes	Detection and quantification of casein	Grinding / Homogenisation Protein extraction ELISA	Internal method MOC3/125 according to supplier kit: R4612 RIDASCREEN®FAST Casein (R. BIOPHARM)
Cereal products: Raw cereals and primary products Puffed cereals  Compound feeds: Babyfood Chile Bolognese sauce Soup  Meat products: Chorizo- Pork chop ham  Dairy products Cheese  Drinks Wine	Detection and quantification of egg protein	Grinding / Homogenisation Protein extraction ELISA	Internal method  MOC3/125  according to supplier kit:  R6402 RIDASCREEN®FAST Ei/Egg Protein (R. BIOPHARM)



Cereal products (raw and primary processing)  Alcoholic and non-alcoholic beverages  Processed cereal products  Compound feed  Dietary food, diet and special food:  Soy-based dairy substitutes	Detection and quantification of total milk protein	Grinding / Homogenisation Protein extraction ELISA	Internal method MOC3/125 according to supplier kit R4652 RIDASCREEN FAST Milk (R BIOPHARM)
Cereal products (raw and primary processing): Maize flour, Soya, Quinoa, Wheat semolina  Processed cereal products: Mini plum, Dry pastry mix, Cookies, Bread,  Compound foods: Chili con carne, Bolognese sauce, Mediterranean pizza, Doy passato BBF;  Sweet products: Organic candy, Hazelnut ice cream, Glucose syrup, Chocolate  Dietary food, diet and special food: Soy-based dairy substitutes	Detection and quantification of Betalactoglobulin	Grinding/Homogenisation Protein extraction ELISA	Internal method MOC3/190 according to supplier kit R4912 RIDASCREEN® FAST β-Lactoglobulin (R. BIOPHARM)
Cereal products (raw and primary processing)  Processed cereal products  Compound foods  Baby food  Meat products  Soft drinks	Detection and quantification of soybeans	Milling / Homogenisation Protein extraction ELISA	Internal method MOC3/197 Supplier kit: R7102 RIDASCREEN®FAST Soya (R. BIOPHARM)



Dietary foods  Baby food  Compound feed	Detection and quantification of tropomyosin	Milling / Homogenisation Protein extraction ELISA	Internal method MOC3/125 Supplier kit: R7312 RIDASCREEN®FAST Crustacean (R. BIOPHARM)
Cereal products Cornflour, Soya, Quinoa, Wheat semolina, Pastry mix, Mini plum, Cookies, Madeleine  Sweet products Jam, Tagada candy, Glucose syrup, Honey  Dairy products Plain yoghurt, Tesco Vanilla, Fresh goat cheese  Spices and herbs Mustard seed, Nutmeg, Pepper, Garlic  Dried fruit  Dietary food, diet and special food: Soy yoghurt	Detection and quantification of hazelnut	Grinding / Homogenisation Protein extraction ELISA	Internal method MOC3/192 Supplier kit : R6802 RIDASCREEN Fast Hazelnut (R- BIOPHARM)
Cereal products Cornflour, Soya, Quinoa, Wheat semolina, Pastry mix, Mini plum, Cookies, Madeleine  Sweet products Jam, Tagada candy, Glucose syrup, Honey  Dairy products Plain yoghurt, Tesco Vanilla, Fresh goat cheese  Spices and herbs Mustard seed, Nutmeg, Pepper, Garlic	Detection and quantification of the kernel	Grinding / Homogenisation Protein extraction ELISA	Internal method MOC3/191 Supplier kit: R6901 RIDASCREEN Fast Mandel / Almond (R- BIOPHARM)



Dried fruit			
Dietary food, diet and special food: Soy yoghurt			
Cereal products Cornflour, Soya, Quinoa, Wheat semolina, Pastry mix, Mini plum, Cookies, Madeleine  Sweet products Jam, Tagada candy, Glucose syrup, Honey  Dairy products Plain yoghurt, Tesco Vanilla, Fresh goat cheese  Spices and herbs Mustard seed, Nutmeg, Pepper, Garlic  Dried fruit  Dietary food, diet and special food:	Detection and quantification of the nut	Grinding / Homogenisation Protein extraction ELISA	Internal method MOC3/193 Supplier kit: Walnut WAL-E01 (LIBIOS, Immunolab)
Cereal products Cornflour, Soya, Quinoa, Wheat semolina, Pastry mix, Mini plum, Cookies, Madeleine  Sweet products Jam, Tagada candy, Glucose syrup, Honey  Dairy products Plain yoghurt, Tesco Vanilla, Fresh goat cheese  Spices and herbs Mustard seed, Nutmeg, Pepper, Garlic	Detection and quantification of macadamia nuts	Grinding / Homogenisation Protein extraction ELISA	Internal method MOC3/194 Supplier kit: Macadamia Nut MAC-E01 (LIBIOS, Immunolab)



Dried fruit			
<b>Dietary food, diet and special food:</b> Soy yoghurt			
Cereal products Cornflour, Soya, Quinoa, Wheat semolina, Pastry mix, Mini plum, Cookies, Madeleine  Sweet products Jam, Tagada candy, Glucose syrup, Honey  Dairy products Plain yoghurt, Tesco Vanilla, Fresh goat cheese  Spices and herbs Mustard seed, Nutmeg, Pepper, Garlic  Dried fruit  Dietary food, diet and special food: Soy yoghurt	Detection and quantification of pistachio	Grinding / Homogenisation Protein extraction ELISA	Internal method MOC3/195 Supplier kit : Pistachio PIS-E01 (LIBIOS, Immunolab)
Cereal products (raw and primary processing): Maize, round rice, quinoa, teff flour Processed cereals: Pastry mix, mini plum cake, cookies, madeleines Spices: Mustard seed, cumin, coriander seed, paprika Sweeteners: jam, tagada candy, glucose syrup, honey  Dairy products: plain yoghurt, Tesco cream dessert, fresh goat's cheese	Detection and quantification of lupin	Grinding / Homogenisation Protein extraction ELISA	Internal method MOC3/590 Supplier kit: R6102 RIDASCREEN Fast Lupine / (R- BIOPHARM)
Dietary food, diet and special food:			



Soy yoghurt			
Soy yoghurt			
Cereal products (raw and primary processing): Maize, round rice, quinoa, teff flour Processed cereals: Pastry mix, mini plum cake, cookies, madeleines Spices: Mustard seed, paprika, nutmeg, pepper Sweeteners: Jam, tagada candy, glucose syrup, honey Dairy products: plain yoghurt, Tesco cream dessert, fresh goat's cheese  Dietary food, diet and special food: Soy yoghurt	Detection and quantification of peanuts	Grinding / Homogenisation Protein extraction ELISA	Internal method MOC3/591 Supplier kit: R6202 RIDASCREEN Fast Peanut / (R-BIOPHARM))
Cereal products (raw and primary processing): Maize, round rice, quinoa, teff flour  Processed cereal products: Pastry mix, mini plum cake, cookies, madeleines  Spices: Mustard seed, paprika, nutmeg, pepper  Sweeteners: Milk jam, tagada candy, glucose syrup, honey  Dairy products: Chocolate yoghurt, plain yoghurt, mango yoghurt, fresh goat cheese	Detection and quantification of cashew nuts	Grinding / Homogenisation Protein extraction ELISA	Internal method MOC3/592 Supplier kit : R6872 RIDASCREEN Fast Cashew (R- BIOPHARM)



Dried fruit : Nuts, hazelnuts, peanuts, macadamia nuts			
Cereal products (raw and primary processing): Maize, rapeseed, wheat, rapeseed meal, split pea flour, split pea fibre, split pea starch and split pea protein	Detection and quantification of soybeans	Grinding / Homogenisation Protein extraction ELISA	Internal method MOC3/585 Supplier kit : NutriLinia Soy-E ELISA NC-6011/96 Novakits



# Contaminants from packaging and materials

Scope of accreditation No. 1-1904

# **FLEX3** range

# General scope

# Food industry / Miscellaneous foods / Physico-chemical analysis

Analysis of pesticide residues and organic contaminants in food, feed and organic products of animal origin - LAB GTA 26/99-2

SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD
Products of plant origin		Extraction: Cold solid / liquid Liquid / Cold liquid Solid / liquid when hot
Animal products  Animal feed	Organic contaminant residues	Purification: Liquid-Solid (SPE)  Analysis: UFLC, LC-MS/MS, GC-MS/MS Isotope dilution LC-GC-FID

<sup>\*</sup>FLEX3 flexible scope: The laboratory is recognised as competent, in the field covered by the general scope, to adopt any recognised method and to develop or implement any other method for which it has ensured validation.



# **Detailed scope**

# Food industry / Miscellaneous foods / Physico-chemical analysis

Analysis of pesticide residues and organic contaminants in food, feed and organic products of animal origin - LAB GTA 26/99-2

SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Products of plant origin: Water-rich products Acidic and water-rich products Products high in sugar and low in water Low water and low fat products Alcoholic beverages Fruit and vegetable juices Sodas Animal products: Dairy products of which baby food	Bisphenol A	Extraction: Cold solid/liquid Purification: SPE Analysis: LC-MS/MS	Internal method MOC3/62
Products of plant origin: Water-rich products Acidic and water-rich products Oil-rich products Sugar-rich, low-water products Products low in water and fat Wine Fruit and vegetable juices  Products of animal origin: Processed egg products (egg pasta, madeleine, pancakes)	Determination of the content of saturated mineral oils ( <b>MOSH</b> ) and aromatic oils ( <b>MOAH</b> )	Preparation: Cold solid/liquid or Liquid/cold liquid  Analysis: LC/GC-FID	Internal method MOC3/174



SUBJECT	CHARACTERISTIC MEASURED OR	PRINCIPLE OF THE	REFERENCE OF
	RESEARCHED	METHOD	THE METHOD
Products of plant origin: Alcoholic beverages, Oils	Determination of Phthalates and other plasticisers:  - DMP (Dimethyl phthalate) -DiBP (Di-iso-butyl phthalate) -DBP (Di-n-butyl phthalate) -BBP (Benzylbutyl phthalate) -DiPP (Di-iso-pentyl phthalate) -DiPP (n-pentyl-iso-pentyl phthalate) -DPP (Di-n-pentyl phthalate) -DHXP (Di-n-hexyl phthalate) -DEHP (Bis(2-ethylhexyl) phthalate) -DCHP (Dicyclohexyl phthalate) -DiHPP (Di-iso-heptyl phthalate) -DiHPP (Di-iso-heptyl phthalate) -DIHPP (Di-iso-nonyl phthalate) -DINP (Di-n-nonyl phthalate) -DINP (Di-n-nonyl phthalate) -DINP (Di-iso-butyl adipate) -DIBA (Di-iso-butyl adipate) -DIBA (Di-n-butyl adipate) -DINCH (1,2-cyclohexanedicarboxylic acid, diisononyl ester) -Tributyl O-acetylcitrate - DMEP (Bis(2-methoxyethyl) phthalate) - DMIP (Dimethyl isophthalate) - DMT (Dimethyl terephthalate) - DMP (Diphenyl phthalate) - DAP (Diallyl phthalate) - DAP (Diallyl phthalate) - DEP (Diethyl phthalate) - TBP (tributylphosphate) - DEA (Diethyl adipate) - DEHA (Bis(2-ethylhexyl) adipate) - DVA (Divinyl adipate)	Extraction: Liquid / cold liquid Analysis: GC-MS-MS	Internal method MOC3/137



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# Scope of accreditation No. 1-1904

# **FLEX3** range

# General scope

Food industry / Miscellaneo Physico-chemical analysis	us foods /		e residues and organic contaminants in Inic products of animal origin - LAB GTA
SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED		PRINCIPLE OF THE METHOD
Products of plant origin			Extraction: by solvent
Animal products	Organic contaminant residues		Purification: Liquid-Solid (SPE)
Animal feed			Analysis: UFLC, LC-MS/MS, GC-MS/MS

<sup>\*</sup>FLEX3 flexible scope: The laboratory is recognised as competent, in the field covered by the general scope, to adopt any recognised method and to develop or implement any other method for which it has ensured validation.

**Detailed scope** 



# Food industry / Miscellaneous foods / Physico-chemical analysis

Analysis of pesticide residues and organic contaminants in food, feed and organic products of animal origin - LAB GTA 26/99-2

SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Products of plant and animal origin:  Tea, cocoa, vegetable oils, soy sauce, hydrolysed vegetable proteins, infant milk	3-MCPD (free) 2-MCPD (free) Glycidol (free)	Preparation/Extraction: Cold solid / liquid Liquid / cold liquid  Purification: Bypass  Analysis: GC-MS/MS	Internal method MOC3/59
Yoghurt, cheese (hard, soft) Dairy fat products (butter, cream) Oil-rich products Low water and low fat products Aromatic and medicinal plants (except flowers, leaves) Feed (raw materials of plant origin and fat) Soy sauce, Hydrolysed vegetable protein Baked goods and pastries Chocolate and Cocoa Products	3-MCPD esters 2-MCPD esters Glycidyl esters	Extraction: Solid / liquid Liquid / liquid Hydrolysis Bypass Purification: Liquid/Liquid Analysis: GC-MS/MS	Internal method MOC3/58



# Food industry / Miscellaneous foods / Physico-chemical analysis

Analysis of pesticide residues and organic contaminants in food, feed and organic products of animal origin - LAB GTA 26/99-2

SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Products of plant origin Spices Aromatic and medicinal plants Products high in sugar and low in water Water-rich products, Oil-rich products, Acidic and water-rich products, Low water and fat products, Alcoholic beverages, Fruit and vegetable juices, Sodas  Original products animal: Products of the hive, Dairy products, Meat products, Fish products, Fish products, Fats  Animal feed: Animal feed  Miscellaneous: Cocoa	Aromatic hydrocarbons polycyclic:  Benzo(a)anthracene, Benzo(b)fluoranthene, Benzo(a)pyrene, Chrysene.	Preparation / Extraction : Cold solid / liquid Purification: SPE Analysis: GC-MS/MS	Internal method MOC3/23
Products of plant origin: Water-rich products and by- products, Cereals and derived products, Products high in sugar and low in water, Nuts, Fruit and vegetable juices Vegetables, Wine, cider, beer, coffee, tea  Animal products: Meat products Fish products Milk, yoghurt	Determination of Acrylamide content	Extraction: Cold solid/liquid Purification: SPE Analysis: LC-MS/MS	Internal method MOC3/129



# **Dioxins and PCBs**

# Scope of accreditation No. 1-1904

# **FIXED** range

# Food industry / Miscellaneous foods / Physico-chemical analysis

Analysis of pesticide residues and organic contaminants in food, feed and organic products of animal origin - LAB GTA 26/99-2

SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Products of plant origin: Oil-rich products Water-rich products Acidic and water-rich products Products rich in sugar and low water content Low water and energy products fat Baby food Miscellaneous products: spices,	Polychlorinated dibenzo-p-dioxins (PCDD): 2,3,7,8-TCDD, 1,2,3,7,8-PeCDD, 1,2,3,4,7,8-HxCDD, 1,2,3,6,7,8-HxCDD, 1,2,3,7,8,9-HxCDD, 1,2,3,4,6,7,8-HpCDD, OCDD Polychlorinated dibenzofurans	Extraction :	
coffee, tea, aromatic plants and medicinal	(PCDF): 2,3,7.8-TCDF, 1,2,3,7,8-PeCDF, 2,3,4,7,8-PeCDF, 1,2,3,4,7,8-HxCDF,	Under hot pressure (IEP)  Purification:	Internal method
Animal products:  Dairy products (cheese, soft and hard cheeses)  Egg products  Meat products  Fish products	1,2,3,6,7,8-HxCDF, 1,2,3,7,8,9-HxCDF, 2,3,4,6,7,8-HxCDF, 1,2,3,4,6,7,8-HpCDF, 1,2,3,4,7,8,9-HpCDF,	SPE  Analysis: GC-HRMS	MOC3/130
Animal feed: Flours of animal origin Compound feed Original raw materials plant	OCDF,  PCB "dioxin like": PCB77, PCB81, PCB 126,PCB169, PCB105, PCB114, PCB118, 123,PCB156, PCB PCB157, PCB167, PCB189  Non-dioxin like PCBs	Isotope dilution	
Mineral compounds	(indicators) : PCB28, PCB52, PCB101, PCB138, PCB PCB153,180		



SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Products of plant origin: Oil-rich products (vegetable oils)  Alcoholic beverages Fruit and vegetable juices Soda  Animal products: Dairy products (milk, yoghurt, high fat products) Fats Baby food  Animal feed: Fats	Polychlorinated dibenzo-p-dioxins (PCDD): 2,3,7,8-TCDD, 1,2,3,7,8-PeCDD, 1,2,3,4,7,8-HxCDD, 1,2,3,7,8,9-HxCDD, 1,2,3,4,6,7,8-HpCDD, OCDD,  Polychlorinated dibenzofurans (PCDF): 2,3,7,8-PeCDF, 1,2,3,7,8-PeCDF, 1,2,3,4,7,8-PeCDF, 1,2,3,4,7,8-HxCDF, 1,2,3,4,7,8-HxCDF, 1,2,3,4,6,7,8-HxCDF, 1,2,3,4,6,7,8-HxCDF, 1,2,3,4,6,7,8-HpCDF, 0CDF, PCB "dioxin like": PCB77, PCB81, PCB 126, PCB169, PCB105, PCB114, PCB118, 123,PCB156, PCB PCB157, PCB167, PCB189  Non-dioxin like PCBs (indicators): PCB28, PCB52, PCB101, PCB138, PCB PCB153,180	Extraction: Liquid-Liquid  Purification: SPE  Analysis: GC-HRMS Isotope dilution	Internal method MOC3/131

**Fixed scope:** The laboratory is recognised as competent to perform the described methods in strict compliance with the recognised methods mentioned in the scope of accreditation.



# **FLEX3** range

# General scope

# Food industry / Miscellaneous foods / Physico-chemical analysis

Analysis of pesticide residues and organic contaminants in food, feed and organic products of animal origin - LAB GTA 26/99-2

SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD
Products of plant origin		Preparation/Extraction: Cold solid / liquid by solvent
Animal products	Organic contaminant residues	Purification: Liquid-Solid (SPE)
Animal feed		Analysis: UFLC-FLD, LC-MS/MS, GC-MS/MS

<sup>\*</sup>FLEX3 flexible scope: The laboratory is recognised as competent, in the field covered by the general scope, to adopt any recognised method and to develop or implement any other method for which it has ensured validation.



# **Detailed scope**

# Food industry / Miscellaneous foods / Physico-chemical analysis

Analysis of pesticide residues and organic contaminants in food, feed and organic products of animal origin - LAB GTA 26/99-2

SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
	Polychlorinated dibenzo-p-dioxins (PCDD): 2,3,7,8-TCDD, 1,2,3,7,8-PeCDD, 1,2,3,4,7,8-HxCDD, 1,2,3,6,7,8-HxCDD, 1,2,3,7,8,9-HxCDD, 1,2,3,4,6,7,8-HpCDD, OCDD		
Products of plant origin: Oil-rich products Baby food Water-rich products Acidic and water-rich products Products high in sugar and low in water Low water and low fat products Spices Aromatic and medicinal plants	Polychlorinated dibenzofurans (PCDF): 2,3,7,8-TCDF, 1,2,3,7,8-PeCDF, 2,3,4,7,8-PeCDF, 1,2,3,4,7,8-HxCDF, 1,2,3,7,8,9-HxCDF, 2,3,4,6,7,8-HxCDF, 1,2,3,4,6,7,8-HyCDF, 1,2,3,4,6,7,8-HpCDF, 1,2,3,4,6,7,8-HpCDF, 1,2,3,4,6,7,8-HpCDF, OCDF	Preparation / Extraction : solid/liquid cold solid/liquid hot  Purification: SPE  Analysis: GC-MS/MS	Internal method MOC3/180
Animal products: Dairy products (cheeses, pasta soft and hard cheeses) Egg products Meat products Fish products Baby food  Animal feed: Flours of animal origin Compound feed Mineral compounds Raw materials of plant origin	PCB "dioxin like" : PCB77, PCB81, PCB126, PCB169, PCB105, PCB114, PCB118, PCB123, PCB156, PCB157, PCB167, PCB189  Non-dioxin like PCBs (indicators) : PCB28, PCB52, PCB101, PCB138, PCB 153, PCB180	Isotope dilution	
	Polychlorinated dibenzo-p-dioxins (PCDD): 2,3,7,8-TCDD, 1,2,3,7,8-PeCDD,	Preparation / Extraction : Cold liquid/liquid Purification:	



1,2,3,4,7,8-HxCDD, 1,2,3,6,7,8-HxCDD, 1,2,3,7,8,9-HxCDD, 1,2,3,4,6,7,8-HpCDD, OCDD SPE

**Analysis:** GC-MS/MS Isotope dilution

#### **Products of plant origin:**

Oil-rich products (vegetable oils)

#### **Animal products:**

Dairy products (milk, yoghurt, cream, ice cream, high fat products) Fats

Baby food

#### Animal feed:

Fats

Polychlorinated dibenzofurans (PCDF) :

2,3,7,8-TCDF, 1,2,3,7,8-PeCDF, 2,3,4,7,8-PeCDF, 1,2,3,4,7,8-HxCDF, 1,2,3,6,7,8-HxCDF, 1,2,3,7,8,9-HxCDF,

2,3,4,6,7,8-HxCDF, 1,2,3,4,6,7,8-HpCDF, 1,2,3,4,7,8,9-HpCDF, OCDF

PCB "dioxin like":

PCB77, PCB81, PCB126, PCB169, PCB105, PCB114, PCB118, PCB123, PCB156, PCB157, PCB167, PCB189

#### Non-dioxin like PCBs

(indicators):

PCB28, PCB52, PCB101, PCB138, PCB 153, PCB180

Internal method MOC3/181



Veterinary drug residues Scope of accreditation No. 1-1904
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# **Range FLEX1**

#Food / Various foods / Microbiological analysis		Analyses of authorised or unauthorised substances for veterinary or zootechnical use (veterinary medicinal products and dyes for pharmacological use) - LAB GTA 30/99-6		
SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD	
Milk	Screening for residues with antibiotic activity	Diffusion in tubes	Delvotest T (AFNOR- DSM validation 28/02-02/12)	

# **FLEX3** range

# General scope

#Food / Various foods / Physico-chemical analysis		veterinary or zootechnical use (veterinary medicinal products and dyes for pharmacological use) - LAB GTA 30/99-6	
SUBJECT		C MEASURED OR RCHED	PRINCIPLE OF THE METHOD
Foodstuffs Organic products of animal origin	Veterinary drug resi	idues	Preparation: Solvent extraction Hydrolysis Bypass  Purification: Dispersive SPE SPE  Analysis: LC-MS/MS LC-HRMS

<sup>\*</sup>FLEX3 flexible scope: The laboratory is recognised as competent, in the field covered by the general scope, to adopt any recognised method and to develop or implement any other method for which it has ensured validation.



# **Detailed scope**

# **#Food / Various foods / Physico-chemical** analysis

Analysis of authorised or unauthorised substances for veterinary or zootechnical use (veterinary medicines) LAB GTA 30/99-6

SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Eggs Muscles Milk Honey Fish products : fish, shellfish, crustaceans	Chloramphenicol	Preparation: Solvent extraction  Purification: dispersive SPE  Analysis: LC-MS/MS	Internal method MOC3/147
Muscles, Fish products, Eggs, Milk	Method of screening and confirmation of:  2-aminoflubendazole, Albendazole, Cambendazole, Diazinon, Ethopabate, Fenobucarb, Florfenicol, Flunixin, Haloperidol, Ipronidazole metabolite (IPZ-OH), Levamisole, Mebendazole, Sulfaethoxypyridazine, Sulfamethoxazole, Sulfamoxole, Sulfathiazole, Sulfisomidine, Tilmicosin, Trichlorfon, Trimethoprim, Xylazine	Preparation: Solids/Liquids (by solvent) Liquid/Liquid (by solvent)  Purification: Liquid/solid (SPE)  Analysis: LC-HRMS, LC-MS/MS	Internal method MOC3/146
Honey	Determination of <b>nitrofurans</b> : AOZ, AMOZ, SEM, AHD	Preparation: Solvent extraction Hydrolysis Bypass  Purification: SPE  Analysis: LC-MS/MS	Internal method MOC3/452



# **#Food / Various foods / Physico-chemical** analysis

Analysis of authorised or unauthorised substances for veterinary or zootechnical use (veterinary medicines) - LAB GTA 30/99-6

SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Eggs  Muscles  Milk  Fish products	Determination of nitrofurans: AHD (1-Aminohydantoin) AMOZ (3-Amino-5- morpholinomethyl-2- oxazolidinone) AOZ (3-amino-2-oxazolidinone) SEM (Semicarbazide) DNSH (3,5-Dinitrosalicyhydrazide)	Preparation: Solvent extraction Hydrolysis Bypass Purification: SPE Analysis: LC-MS/MS	Internal method MOC3/459
Honey	tetracyclines: oxytetracycline, 4-epi-oxytetracycline, tetracycline, 4-epi-tetracycline, demeclocycline, metacycline  Quinolones: Σ of enrofloxacin and ciproflo - xacin, enrofloxacin, ciprofloxacin, nalidixic acid, oxolinic acid, cinoxacin, difloxacin, enoxacin, fleroxacin, flumequine, lomefloxacin, marbofloxacin, norfloxacin, orbifloxacin, sarafloxacin, sparfloxacin, pazufloxacin, pipemidic acid, pefloxacin, nadifloxacin  Nitroimidazoles: metronidazole hydroxide, dimetridazole, metronidazole, ipronidazole and other pharmacologically active substances: Lincomycin	Preparation: Solvent extraction Purification: SPE Analysis: LC-MS/MS	Internal method MOC3/453
Honey	Determination of aminoglycosides: Apramycin, Dihydrostreptomycin, Kanamycin, Spectinomycin, Paromomycin, Streptomycin, Neomycin B	Preparation: Solvent extraction  Purification: SPE  Analysis: LC-MS/MS	Internal method MOC3/450



Honey	Determination of <b>sulfonamides</b> : dapsone, Sulfabenzamide, Sulfacetamide, Sulfachloropyridazine, Sulfaclozine.sulfachloropyrazine, Sulfadiazine, Sulfadimethoxine, Sulfadimidine, Sulfadoxine, Sulfaguanidine, Sulfamerazine, Sulfaguanidine, Sulfamerazine, Sulfameter.Sulfamethoxydiazine, Sulfamethoxypyridazine, Sulfamethoxypyridazine, Sulfamethoxypyridazine, Sulfamonomethoxine, Sulfamoxole, Sulfaphenazole, Sulfapyridine, Sulfaquinoxaline, Sulfasalazine, Sulfathiazole, Sulfatroxazole, Sulfisomidine, Sulfisoxazole, Sulfafurazole, Sulfisozole	Preparation: Solvent extraction  Purification: SPE  Analysis: LC-MS/MS	Internal method MOC3/458
Eggs Muscles Milk Fish products Honey	Determination of nitroimidazoles: Ronidazole Metronidazole Ipronidazole Dimetridazole Ternidazole Secnidazole Tinidazole and metabolites (2-hydroxy-metronidazole, 2-hydroxy-ipronidazole, HMMNI (2-hydroxy-dimetridazole))	Preparation: Solvent extraction  Analysis: LC-MS/MS	Internal method MOC3/456



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# Scope of accreditation No. 1-1904

#### **FLEX3** range

# General scope

Food industry / Various foodstuffs, Dairy products, Meat products, Sea products, Beverages (except drinking water) and sweetened products / Physico-chemical analyses

Physico-chemical analyses for the determination of composition, quality and technological criteria, and nutritional labelling in food and feed - LAB GTA 25/60-61-8-1180

SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD
Human nutrition	Determination of dye content	Preparation: Solvent extraction
		Analysis: LC-MS/MS UFLC-DAD

<sup>\*</sup>FLEX3 flexible scope: The laboratory is recognised as competent, in the field covered by the general scope, to adopt any recognised method and to develop or implement any other method for which it has ensured validation.

**Detailed scope** 



Food industry / Various foodstuffs, Dairy products, Meat products, Sea products, Beverages (except drinking water) and sweetened products / Physicochemical analyses

Physico-chemical analyses for the determination of composition, quality and technological criteria and nutritional labelling in food and feed - LAB GTA 25/60-61-8-1180

chemical analyses			
SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Spices and condiments Compound feed Sauce	Determination of dyes: Auramine, Fast garnet GBC, Oil orange SS, Para red, P-nitroaniline, Sudan blue 2, Sudan I, Sudan II, Sudan III, Sum (Sudan IV + Sudan red 7B), Sudan red G, Sudan yellow, Toluidine red, Leucomalachite green.	Extraction: by solvent Analysis: LC-MS/MS	Internal method MOC3/163
Non-alcoholic beverages	Determination of dyes: E101, E110, E122, E123, E124, E129, E131, E132, E133, E151	Extraction: by solvent  Analysis: UFLC-DAD	Internal method MOC3/161
Compound feed Spices and condiments Dairy products Meat products Fish products Coffee, Tea, Infusion Non-alcoholic beverages	Curcuminoids Curcumin Bis-demethoxycurcumin demethoxycurcumin	Extraction : By solvent  Analysis : LC-MS/MS	Internal method MOC3/162

**<u>Fixed scope:</u>** The laboratory is recognised as competent to perform the tests in strict accordance with the methods mentioned in the scope of accreditation. Technical modifications of the procedure are not allowed.



# **Nutritional values**

Scope of accreditation No. 1-1904

# **FLEX3** range

# General scope

Food industry / Various foodstuffs, Dairy products, Animal feed, Fats and oils, Beverages (except drinking water) and sweetened products, Cereal products / Physico-chemical analysis		Physico-chemical analyses for the determination of composition, quality and technological criteria, and nutritional labelling in food and feed - LAB GTA 25/60-61-81-82-118-119	
	SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD
	uman food nimal feed	Determination of sodium content	Preparation: Mineralization (wet process)  Analysis: ICP-MS

<sup>\*</sup>FLEX3 flexible scope: The laboratory is recognised as competent, in the field covered by the general scope, to adopt any recognised method and to develop or implement any other method for which it has ensured validation.



# Detailed scope

Food industry / Various foodstuffs, Dairy products, Animal feed, Fats and oils, Beverages (except drinking water) and sweetened products, Cereal products / Physico-chemical analysis

Physico-chemical analyses for the determination of composition, quality and technological criteria, and nutritional labelling in food and feed - LAB GTA 25/60-61-81-82-118-119

SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Human food: Fruit and vegetables Compound feed Dairy products Fatty products Sweetened and sugared products Cereal products  Egg products Meat products Fish products Coffee, Tea, Infusion Non-alcoholic beverages Spices and condiments  Diet foods, special foods, special diets	Determination of total sodium content and calculation of salt content	Preparation: Mineralization (wet process) Analysis: ICP-MS	Internal method MOC3/152
Animal feed: Complete or complementary compound feeds Raw materials for animal feed			



#### General scope

Food industry / Various foodstuffs, Dairy products, Animal feed, Fats and oils, Beverages (except drinking water) and sweetened products, Cereal products / Physico-chemical analysis		Physico-chemical analyses for the determination of composition, quality and technological criteria, and nutritional labelling in food and feed - LAB GTA 25/60-61-81-82-118-119
SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD
Human food	Determination of carbohydrate components	Preparation: Water extraction  Analysis: Ion Chromatography / Pulsed Amperometry

<sup>\*</sup>FLEX3 flexible scope: The laboratory is recognised as competent, in the field covered by the general scope, to adopt any recognised method and to develop or implement any other method for which it has ensured validation.

#### Detailed scope

Food industry / Various foodstuffs, Dairy products, Animal feed, Fats and oils, Beverages (except drinking water) and sweetened products, Cereal products / Physico-chemical analysis

Physico-chemical analyses for the determination of composition, quality and technological criteria, and nutritional labelling in food and feed - LAB GTA 25/60-61-81-82-118-119

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SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Human food: Fruit and vegetables Compound feed Dairy products Sweetened and sugared products Cereal products Dietary foods	Determination of Fructose, Glucose, Lactose, Maltose, Sucrose	Preparation: Water extraction  Analysis: Ion Chromatography / Pulsed Amperometry	Internal method MOC3/168



# **Nutritional values**

Scope of accreditation No. 1 -1904

# **FLEX3** range

# General scope

Food / Various foodstuffs, Meat products, Fats, Beverages (except drinking water) and sweetened products, Cereal products / Physico-chemical analyses		Physico-chemical analyses for the determination of composition, quality and technological criteria, and nutritional labelling in food and feed - LAB GTA 25/60-80-82-118-119
SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD
Human food	Extraction of fat for characterisation  Determination of fatty acid methyl esters	Preparation: Solvent extraction: n-hexane / Isopropanol 3 /2 (v/v) Methylation  Analysis: GC-FID

<sup>\*</sup>FLEX3 flexible scope: The laboratory is recognised as competent, in the field covered by the general scope, to adopt any recognised method and to develop or implement any other method for which it has ensured validation.

**Detailed scope** 



Food / Various foodstuffs, Meat products, Fats, Beverages (except drinking water) and sweetened products, Cereal products / Physico-chemical analyses

Physico-chemical analyses for the determination of composition, quality and technological criteria, and nutritional labelling in food and feed - LAB GTA 25/60-80-82-118-119

SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Fatty products Sweetened and sugared products  Diet foods, special foods, special diets Meat products Cereal products except raw cereals	Extraction of fat for characterisation	Solvent extraction: n-hexane / Isopropanol 3 /2 (v/v)	Internal method MOC3/160
Fatty products Sweetened and sugared products  Diet foods, special foods, special diets Meat products Cereal products except raw cereals	Determination of fatty acid methyl esters	Preparation: Methylation Analysis: GC-FID	Internal method MOC3/160



### **FIXED** range

Food / Various foods, Dairy products, Meat products, Seafood, Animal feed, Fats and oils, Beverages (except drinking water) and sweetened products, Cereal products / Physico-chemical analysis

Physico-chemical analyses for the determination of composition, quality and technological criteria and nutritional labelling in food and feed - LAB GTA 25/60-61-80-81-82-118-119

SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Human food: Fruits and vegetablesDietetic foodsDietary foodsSpecial foods Spices and condiments Dairy products Meat products Fish products Sweetened productsCoffee , tea, infusions Cereal products  Animal feed: Compound feed	Determination of water activity	Hygrometry (Dew point principle)	Internal method MOC3/155
Fruit, Processed fruit Ice cream Non-alcoholic beverages Honey	Determination of Sugar content (Brix degree)	Refractometry	Internal method MOC3/169
Human food: Dietary foods Compound feed Fruit and vegetables Fatty products Sweetened and sugared products Cereal products  Animal feed: Compound feeds and raw materials	Determination of total nitrogen content and calculation of protein content	Dumas method: O2 combustion Detection by catharometry	Internal method MOC3/186

**<u>Fixed scope:</u>** The laboratory is recognised as competent to perform the tests in strict accordance with the methods mentioned in the scope of accreditation. Technical modifications of the procedure are not allowed.

# **FIXED range**



Agri-food / Meat products, Seafood / Physico- chemical analysis		Physico-chemical analyses for the determination of composition, quality and technological criteria, and nutritional labelling in food and feed - LAB GTA 25/80	
SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Fish products	Determination of the total volatile basic acid concentration (ABVT) and trimethylamine (TMA)	Preparation: Filtration Distillation  Analysis: Titrimetry	Internal method MOC3/188
Meat products	Determination of starch content	Preparation: Dissolution Hydrolysis Filtration  Analysis: Titrimetry	Internal method MOC3/561
Meat products	Determination of the L(-)hydroxyproline and calculation of collagen content	Preparation: Dissolution Acid hydrolysis Filtration  Analysis: Colorimetry	Internal method MOC3/189

# **FIXED range**

Agri-food / Fat / Physico-chemical analysis		Physico-chemical analyses for the determination of composition, quality and technological criteria, and nutritional labelling in food and feed - LAB GTA 25/82	
SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Fatty products: Oilseeds Nuts Mayonnaise	Determination of the peroxide value	Titrimetry	Internal method MOC3/171

**<u>Fixed scope:</u>** The laboratory is recognised as competent to perform the tests in strict accordance with the methods mentioned in the scope of accreditation. Technical modifications of the procedure are not allowed.



# Range FLEX1

Agri-food / Fat / Physico-chemical analysis		Physico-chemical analyses for the determination of composition, quality and technological criteria, and nutritional labelling in food and feed - LAB GTA 25/82	
SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Fats of animal and vegetable origin	Determination of acid number and acidity	Titrimetry	NF EN ISO 660
Milkfat and butter products	Determination of acid number and acidity	Titrimetry	NF EN ISO 1740
Fats of animal and vegetable origin	Determination of the peroxide value	Titrimetry	NF EN ISO 3960

<u>Flexible scope FLEX1:</u> The laboratory is recognised as competent to perform the tests according to the referenced methods and their subsequent revisions.



# General scope

Food industry / Various foodstuffs, Beverages (except drinking water) and sweetened products, Cereal products / Physico-chemical analysis

Physico-chemical analyses for the determination of composition, quality and technological criteria, and nutritional labelling in food and feed - LAB GTA 25/6082

SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD
Human food	Determination of acid number and acidity	Titrimetry

# **Detailed scope**

Agri-food / Various foods, Beverages (except drinking water) and sweetened products, Cereal products / Physico-chemical analysis

Physico-chemical analyses for the determination of composition, quality and technological criteria, and nutritional labelling in food and feed - LAB GTA 25/6082

SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Fatty products: oilseeds nuts mayonnaise  Compound feed	Determination of acid number and acidity	Titrimetry	Internal method MOC3/172



# Range FLEX1

Agri-food / Dairy products / Physico-chemical analysis		Physico-chemical analyses for of composition, quality and te criteria, and nutritional labellin feed - LAB GTA 25/61	chnological
SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Milk	Determination of the fat content	Gravimetric method	NF EN ISO 1211
Milk, cream and unsweetened condensed milk	Determination of dry matter	Oven drying Gravimetry	NF EN ISO 6731

<u>Flexible scope FLEX1:</u> The laboratory is recognised as competent to perform the tests according to the referenced methods and their subsequent revisions.



### General scope

Food industry / Various foodstuffs, Beverages (except drinking water) and sweetened products, Cereal products / Physico-chemical analysis

Physico-chemical analyses for the determination of composition, quality and technological criteria, and nutritional labelling in food and feed - LAB GTA 25/60-118-119

SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD
Human food	Determination of dietary fibre content	<b>Preparation:</b> Automatic enzymatic digestion
		Analysis: Gravimetry

<sup>\*</sup>FLEX3 flexible scope: The laboratory is recognised as competent, in the field covered by the general scope, to adopt any recognised method and to develop or implement any other method for which it has ensured validation.

# **Detailed scope**

Agri-food / Various foods, Beverages
(except drinking water) and sweetened
products, Cereal products /
Physico-chemical analysis

Physico-chemical analyses for the determination of composition, quality and technological criteria, and nutritional labelling in food and feed - LAB GTA 25/60-118-119

SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Diet food, Diet food, Special diet Fruit and vegetables Compound feed Sweetened and sugared products Cereal products Spices and condiments	Determination of total dietary fibre	Preparation: Automatic enzymatic digestion  Analysis: Gravimetry	Internal method MOC3/165



# General scope

Food industry / Various foodstuffs, Dairy products, Animal feed, Fats and oils, Beverages (except drinking water) and sweetened products, Cereal products / Physico-chemical analysis

Physico-chemical analyses for the determination of composition, quality and technological criteria, and nutritional labelling in food and feed - LAB GTA 25/60-61-81-82-118-119

SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD
Human food Animal feed	Determination of total lipid content	Preparation: Acid hydrolysis Microwave hydrolysis Solvent extraction Microwave extraction  Analysis: Gravimetry

<sup>\*</sup>FLEX3 flexible scope: The laboratory is recognised as competent, in the field covered by the general scope, to adopt any recognised method and to develop or implement any other method for which it has ensured validation.



# Detailed scope

# Food industry / Various foodstuffs, Dairy products, Animal feed, Fats and oils, Beverages (except drinking water) and sweetened products, Cereal products / Physico-chemical analysis

Physico-chemical analyses for the determination of composition, quality and technological criteria, and nutritional labelling in food and feed - LAB GTA 25/60-61-81-82-118-119

SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Human food: Fruit and vegetables Compound feed Dairy products Fatty products excluding seeds oilseeds Sweetened and sugared products Cereal products except raw cereals  Dietary foods Spices and condiments Meat products Non-drinks alcoholic beverages  Animal feed: Complete or complementary compound feeds	Determination of total lipid content	Preparation: Hydrolysis Solvent extraction Analysis: Gravimetry	Internal method MOC3/154
Human food: Fruit and vegetables Compound feed Dietary foods Cereal products Dairy products Meat products/Fish products Fatty products Sweetened and sugared products Non-alcoholic beverages  Animal Feed: Compound feed Raw material	Determination of total lipid content	Preparation: Microwave hydrolysis Microwave extraction  Analysis: Gravimetry	Internal method MOC3/560



### General scope

Food industry / Various foodstuffs, Dairy products, Animal feed, Fats and oils, Beverages (except drinking water) and sweetened products, Cereal products / Physico-chemical analysis

Physico-chemical analyses for the determination of composition, quality and technological criteria, and nutritional labelling in food and feed - LAB GTA 25/60-61-81-82-118-119

SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD
Human food Animal feed	Determination of total nitrogen content	<b>Kjeldahl :</b> Mineralization Distillation Titrimetry

<sup>\*</sup>FLEX3 flexible scope: The laboratory is recognised as competent, in the field covered by the general scope, to adopt any recognised method and to develop or implement any other method for which it has ensured validation.

#### Detailed scope

Food industry / Various foodstuffs, Dairy products, Animal feed, Fats and oils, Beverages (except drinking water) and sweetened products, Cereal products / Physico-chemical analysis

Physico-chemical analyses for the determination of composition, quality and technological criteria, and nutritional labelling in food and feed - LAB GTA 25/60-61-81-82-118-119

SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Human food: Fruit and vegetables Compound feed Dairy products Fatty products Sweetened and sugared products Cereal products Dietary foods Spices and condiments  Animal feed: Complete compound feed or complementary	Determination of total nitrogen content and calculation of protein content	<b>Kjeldahl :</b> Mineralization Distillation Titrimetry	Internal method MOC3/153



# General scope

Food industry / Various foodstuffs, Dairy products, Animal feed, Fats and oils, Beverages (except drinking water) and sweetened products, Cereal products / Physico-chemical analysis

Physico-chemical analyses for the determination of composition, quality and technological criteria, and nutritional labelling in food and feed - LAB GTA 25/60-61-81-82-118-119

SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD
Human food	Determination of humidity	Desiccation Gravimetry
Animal feed	Determination of ash content	Dry mineralisation Gravimetry

<sup>\*</sup>FLEX3 flexible scope: The laboratory is recognised as competent, in the field covered by the general scope, to adopt any recognised method and to develop or implement any other method for which it has ensured validation.



# Detailed scope

# Food industry / Various foodstuffs, Dairy products, Animal feed, Fats and oils, Beverages (except drinking water) and sweetened products, Cereal products / Physico-chemical analysis

Physico-chemical analyses for the determination of composition, quality and technological criteria, and nutritional labelling in food and feed - LAB GTA 25/60-61-81-82-118-119

SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Human food: Fruit and vegetables Compound feed Dairy products Fatty products excluding seeds oilseeds Sweetened and sugared products Cereal products except raw cereals Dietary foods Spices and condiments Non-alcoholic beverages  Animal feed: Complete compound feed or complementary Raw materials	Determination of dry matter content or water content	Drying Gravimetry	Internal method MOC3/150
Human food: Fruit and vegetables Compound feed Dairy products Fatty products excluding seeds oilseeds Sweetened and sugared products Cereal products except raw cereals Dietary foods Spices and condiments  Animal feed: Complete compound feed or complementary	Determination of ash content	Dry mineralisation Gravimetry	Internal method MOC3/151



# General scope

Food industry / Miscellaneous foodstuffs, Beverages (except drinking water) and sweetened products / Physico-chemical analyses

Physico-chemical analyses for the determination of composition, quality and technological criteria, and nutritional labelling in human food - LAB GTA 25/60-118

SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD
Human food	Determination of sulphite content	Preparation: Solid / liquid extraction Bypass  Purification: Liquid/solid extraction (SPE)  Analysis: LC-MS/MS

<sup>\*</sup>FLEX3 flexible scope: The laboratory is recognised as competent, in the field covered by the general scope, to adopt any recognised method and to develop or implement any other method for which it has ensured validation.

**Detailed scope** 



Food industry / Miscellaneous foodstuffs, Beverages (except drinking water) and sweetened products / Physico-chemical analyses

Physico-chemical analyses for the determination of composition, quality and technological criteria, and nutritional labelling in human food - LAB GTA 25/60-118

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SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Fruit and vegetables Compound feed Non-alcoholic beverages	Determination of sulphite content	Preparation: Solid/liquid extraction Bypass Purification: Liquid/solid extraction (SPE) Analysis: LC-MS/MS	Internal method MOC3/132



# **Norovirus and Hepatitis A**

Scope of accreditation No. 1 -1904

# **FLEX3** range

# General scope

Food industry / Various foods / Microbiological analysis		Microbiological analysis of food products and environment - LAB GTA 59
SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD
Frozen/fresh fruit and vegetables Bivalve molluscs Food surface swab samples	Hepatitis A virus genome	Manual extraction of viral RNA by silica adsorption Real-time RT-PCR amplification (qualitative method)
Frozen/fresh fruit and vegetables Bivalve molluscs Food surface swab samples	Norovirus genome Genogroups GI and GII	Manual extraction of viral RNA by silica adsorption Real-time RT-PCR amplification (qualitative method)

<sup>\*</sup>FLEX3 flexible scope: The laboratory is recognised as competent, in the field covered by the general scope, to adopt any recognised method and to develop or implement any other method for which it has ensured validation.



# Detailed scope

Food industry / Various foods / Microbiological analysis			Microbiological analysis and environment - LAB (	
SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED		PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Frozen/fresh fruit and vegetables Bivalve molluscs Food surface swab samples	Hepatitis A virus genome	RNA Rea am <sub>l</sub>	nual extraction of viral A by silica adsorption I-time RT-PCR olification alitative method)	Internal method MOC3/199
Frozen/fresh fruit and vegetables Bivalve molluscs Food surface swab samples	Norovirus genome Genogroups GI and GII	RNA Rea amı	nual extraction of viral A by silica adsorption I-time RT-PCR olification alitative method)	Internal method MOC3/199



Food microbiology	Scope of accreditation No. 1 -6066
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Food industry / Miscellane Sampling	eous foods /	g of agri-food items - LAB GTA 59	
SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Surface of the environment of the food chain	Samples for microbiological microbiological analysis	Instantaneous sampling of surface by means of contact boxes, swabs, sponges and wipes	NF EN ISO 18593

 $<sup>^{</sup>f 1}$  The laboratory has met the requirements for sampling objects for testing within its scope of accreditation.

**Flexible scope FLEX1**: The laboratory is recognised as competent to perform the tests according to the referenced methods and their subsequent revisions.

# **FIXED** range

Food industry / Miscellane Sampling	eous foods /	Sampling	of agri-food items - LAB GTA 59	
SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED		PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Agri-food products excluding carcasses and frozen products in bread	Samples for microbiological microbiological analysis		Instantaneous withdrawal	Internal method MOC3/291

**FIXED SCOPE:** The laboratory is recognised as competent to carry out sampling in strict accordance with the methods mentioned in

the scope of accreditation. Technical modifications of the procedure are not allowed.



# **Range FLEX1**

# Food industry / Various foods / Microbiological analysis

Microbiological analysis of food products and environment - LAB GTA 59

SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
Products for human consumption, animal feed and environmental samples	Micro-organisms	Enumeration of colonies at 30°C using the deep seeding technique	NF EN ISO 4833- 1
Products for human consumption, animal feed and environmental samples	Micro-organisms	Enumeration of colonies at 30°C by surface plating technique	NF EN ISO 4833- 2
Products intended for human consumption or animal feed, environmental samples from the agri-food sector	Enterobacteriaceae	Search and enumeration by MPN technique with pre- enrichment at 30°C or 37°C	NF ISO 21528-1
Products intended for human consumption or animal feed, environmental samples from the agri-food sector	Enterobacteriaceae	Colony count at 37°C (or 30°C)	NF ISO 21528-2
All food and feed products and samples from the production environment	Enterobacteriaceae	Colony count at 37°C	BRD 07/24-11/13
Products intended for human consumption or animal feed, environmental samples from the agri-food sector	Coliforms	Search and enumeration by MPN technique at 30°C (or 37°C)	NF ISO 4831
Products intended for human consumption or animal feed, environmental samples from the agri-food sector	Coliforms	Colony count at 30°C (or 37°C)	NF ISO 4832
Products intended for human consumption or animal feed	Thermotolerant coliforms	Enumeration of colonies at 44°C	NF V08-060
Products intended for human consumption or animal feed	Escherichia coli - β-glucuronidase positive	Enumeration of colonies at 44°C	NF ISO 16649-2

SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
All food products	Coliforms	Colony count at 37°C by RAPID chromogenic medium <i>E.coli</i> 2	BRD 07/08-12/04
All food and feed products	Escherichia coli -β-glucuronidase positive	Colony count at 37°C by RAPID chromogenic medium <i>E.coli</i> 2	BRD 07/07-12/04



All food and feed products	Enterobacteriaceae	Colony count at 37°C by medium chromogenic REBECCA™ + EB	AES 10/07-01/08
All food and feed products	Escherichia coli - β - glucuronidase positive	Colony count at 37°C by medium chromogenic REBECCA <sup>™</sup> BASE or REBECCA <sup>™</sup> + EB	AES 10/06-01/08
Products intended for human consumption or animal feed	Escherichia coli O157	Enrichment Separation / Concentration Isolation - Confirmation	NF EN ISO 16654
Raw meat products, raw plant products, raw milk, raw milk-based dairy products and samples from the industrial production environment	Escherichia coli O157	Enzyme-linked immunosorbent assay (ELFA) VIDAS® UP E.coli O157 including H7 (VIDAS ECPT) automated system	BIO 12/25- 05/09
Products intended for human consumption or animal feed, environmental samples from the agri-food sector	Suspected Escherichia coli	Search and enumeration by MPN technique at 37°C then 44°C	NF ISO 7251
Products intended for human consumption or animal feed	Coagulase positive staphylococci	Enumeration of colonies at 35°C or 37°C using Baird Parker agar medium	NF EN ISO 6888- 1
Products intended for human consumption or animal feed	Coagulase positive staphylococci	Aerobic enumeration of colonies at 35°C or 37°C using rabbit plasma and fibrinogen agar medium	NF EN ISO 6888- 2
Products intended for human consumption or animal feed, environmental samples from the agri-food sector	Coagulase positive staphylococci	Search and enumeration by MPN technique for small numbers	NF EN ISO 6888-3



SUBJECT	CHARACTERISTIC MEASURED OR RESEARCHED	PRINCIPLE OF THE METHOD	REFERENCE OF THE METHOD
All food products	Coagulase positive staphylococci	Enumeration of colonies at 37°C on RAPID'Staph specific medium and confirmation	Nordval n°049 Nordval certified method
Products intended for human consumption or animal feed	Sulphite-reducing bacteria	Colony count at 46°C under anaerobic conditions	NF V08-061
Products intended for human consumption or animal feed, environmental samples from the agri-food sector	Sulphite-reducing bacteria growing under anaerobic conditions	Colony count at 37°C	NF ISO 15213
Products intended for human consumption or animal feed, environmental samples from the agri-food sector	Clostridium perfringens	Colony count at 37°C and confirmation	NF EN ISO 7937
Products intended for human consumption or animal feed, environmental samples from the agri-food sector	Presumptive Bacillus cereus	Colony count at 30°C	NF EN ISO 7932
All food and feed products	Presumptive Bacillus cereus	Enumeration at 30°C by Compass® chromogenic medium Bacillus cereus Agar	BKR 23/06-02/10
Products intended for human consumption or animal feed	Mesophilic lactic acid bacteria	Colony count at 30°C	NF ISO 15214
Meat and meat products	Pseudomonas spp	Colony count at 25°C	NF EN ISO 13720
Products intended for human consumption or animal feed	Yeasts and moulds	Colony count at 25°C	NF V08-059
All food and feed products	Yeasts and moulds	Colony count at 25°C on Symphony medium	BKR 23/11- 12/18
Products intended for human consumption or animal feed	Yeasts and moulds growing on a low water activity medium	Colony count at 25°C	NF V08-036
Products intended for human consumption or animal feed and samples of the food production and distribution environment	Listeria monocytogenes and Listeria spp	Colony count at 37°C and confirmation	NF EN ISO 11290-2
All food products and environmental samples	Listeria monocytogenes and Listeria spp	Enumeration at 37°C by chromogenic medium ALOA COUNT™	AES 10/05-09/06
Products intended for human consumption or animal feed, environmental samples from the agri-food sector	Salmonella spp. including Salmonella Typhi and Salmonella Paratyphi	Search Isolation / Identification and confirmation	NF EN ISO 6579- 1
All food and feed products and samples from the production environment	Salmonella	RAPID chromogenic medium search Salmonella	BRD 07/11-12/05
All food and feed products and environmental samples (excluding livestock environment)	Salmonella spp	IQ-Check Salmonella II real- time PCR	BRD 07/06-07/04
Products intended for human consumption or animal feed and samples of the food production and distribution environment	Listeria monocytogenes and Listeria spp	Search Isolation / Identification and confirmation	NF EN ISO 11290-1



Food products and environmental samples	Listeria monocytogenes and Listeria spp.	Research at 37°C by chromogenic medium ALOA ONE DAY™	AES 10/03-09/00
Products intended for human consumption or animal feed, environmental samples from the agri-food sector	Campylobacter spp.	Colony count at 41.5°C	NF EN ISO 10272-2
Products and ingredients intended for human consumption or animal feed, environmental samples taken in the food production and handling sectors	Cronobacter spp	Search Isolation / Identification and confirmation	NF EN ISO 22964

**Flexible scope FLEX1**: The laboratory is recognised as competent to perform the tests according to the referenced methods and their subsequent revisions.

# Accreditation made compulsory in the French regulatory framework specified by the text referred to in the document Cofrac LAB INF 99 available on www.cofrac.fr.