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Annexe au certificat d'accréditation  
Annex to the accreditation certificate  
Beilage zur Akkreditierungszertifikat

## 054-TEST

EN ISO/IEC 17025:2017

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La Présidente du Bureau d'Accréditation  
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Vorsitzende des Akkreditierungsbüro

**De accreditatie werd uitgereikt aan / L'accréditation est délivrée à /  
The accreditation is granted to / Die akkreditierung wurde erteilt für:**

**LOVAP nv  
Klaus-Michael Kuehnelaan 11  
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#### **LIJST MET AFKORTINGEN**

A.S.L.	Amtliche Sammlung von Untersuchungsverfahren - Lebensmittel
CMA	Compendium voor Monstername en Analyse
DIN	Deutsches Institut für Normung
ISO	International organization for Standardization
ISO/R	International organization for Standardization/Recommendation
ISO/TC	International organization for Standardization/Technical Committee
KB	Koninklijk Besluit
EN	Europese Norm
NF V	Norme française - Viande
WAC	Water Analyse Compendium
XP V	Norme française de routine expérimentale - Viande

#### **WETTELIJKE REFERENTIES**

EG/152/2009 : *Verordening (EG) Nr. 152/2009 van de Commissie van 27 januari 2009 tot vaststelling van de bemonsterings- en analysemethoden voor de officiële controle van diervoeders*

MB 19/06/1995 : *Ministerieel besluit van 19 juni 1995 tot wijziging van het ministerieel besluit van 18 december 1973 tot bepaling van de laboratoriumtechnieken voor het opsporen van residuen van stoffen met een kiemgroeiremmende werking*

KB 29/10/1987: *Koninklijk Besluit tot vaststelling van de geldende referentiemethoden voor de ontleiding van producten op basis van meel. Bijlage II: bepaling van het keukenzoutgehalte op de droge stof van brood en andere bakkerijproducten*

Testcode	Product/ Matrix	Gemeten eigenschap/parameter (type test)	Referentie beproefingsmethode	Test- of meetprincipe/ mettechniek
<b>MICROBIOLOGISCHE PARAMETERS</b>				
<b>Eetwaren en/of dierenvoeders</b>				
SM00132	Eetwaren	Anaeroob kiemgetal bij 37 °C	SP-VG M005 (1998)	Telling
SM00413	Eetwaren en dierenvoeder, swabs	Aeroob mesofiel kiemgetal bij 30 °C	ISO 4833 -1	Telling
SM00417	Eetwaren	Coagulase positieve staphylococci	ISO 6888-1	Telling
SM01574	Eetwaren en dierenvoeder, swabs	Enterobacteriaceae bij 37 °C	AFNOR BRD 07/24-11/13	Telling
SM00415	Eetwaren	Coliformen bij 30 °C	ISO 4832	Telling
SM00416	Eetwaren	Thermotolerante coliformen bij 44 °C	NF V08-060	Telling
SM00386	Eetwaren	Vermoedelijke Bacillus cereus bij 30 °C	ISO 7932	Telling
SM00404	Eetwaren	Beta-glucuronidase positieve Escherichia coli	ISO 16649-2	Telling
SM00407	Eetwaren en dierenvoeder	Clostridium perfringens	ISO 7937	Telling
SM00418	Eetwaren	Schimmels en gisten bij 25 °C	ISO 21527-1 en ISO 21527-2	Telling
SM00699	Eetwaren en dierenvoeder	Sulfietreducerende anaëroben	ISO 15213	Telling
SM00405	Eetwaren	Melkzuurbacteriën	ISO 15214	Telling
SM00142	Eetwaren	Enterococcen	Afgeleid van NEN 6817	Telling
SM00406	Eetwaren	Telling van Listeria monocytogenes	AFNOR BRD-07/05-09/01	Telling

SM00977	Vlees en vleeswaren	Campylobacter	Microval MV2008LR12	Telling
SM00199	Yoghurt	Lactobacillus bulgaricus en Streptococcus thermophilus	Afgeleid van ISO 7889	Telling
SM00390	Yoghurt	Vermoedelijke Bifidobacterium	ISO 29981	Telling
SM00419	Eetwaren en dierenvoeder, Swabs	Salmonella	AFNOR BRD 07/11-12/05 Rapid Salmonella short protocol	Opsporing
SM01573	Eetwaren	Opsporing van Listeria en Listeria monocytogenes	AFNOR BRD-07/4-09/98	Opsporing
SM00408	Swabs			
SM01262	Vis, schaal- en schelpdieren	Potentieel enteropathogene Vibrio parahaemolyticus	ISO 21872-1	Opsporing
SM00813	Nieren	Opsporen van residuen van stoffen met kiemgroei remmende werking	Officiële methode MB 1995/06/19 (New Belgian Kidney Test)	Agar diffusion
SM04008	Eetwaren, Swabs	Vermoedelijke STEC	AOAC 121203 iQ-Check STEC VirX and SerO real-time PCR	Opsporing
<b>Waters</b>				
SM00400	Drinkwater	Totaal kiemgetal bij 22 °C en bij 37 °C	ISO 6222 WAC/V/A/001	Telling
SM00047	Drinkwater	Coliformen en Escherichia coli	ISO 9308-1 WAC/V/A/002	Telling na membraanfiltratie
SM00403	Drinkwater	Enterococcen	ISO 7899-2 WAC/V/A/003	Telling na membraanfiltratie
SM00402	Drinkwater	Pseudomonas aeruginosa	ISO 16266 WAC/V/A/006	Telling na membraanfiltratie
SM00380	Drinkwater	Clostridium perfringens	ISO 14189 WAC/V/A/007	Telling na membraanfiltratie
SM00131	Drinkwater	Salmonella	ISO 19250 WAC/V/A/004	Opsporing na membraanfiltratie

**ELISA, Real Time PCR en Enzymatisch**

ELISA, Real Time PCR en Enzymatisch				
SM00116	Eetwaren	Opsporen van wei-eiwit en caseïne-eiwit	Methode gebaseerd op de Veratox kit (Neogen)	ELISA
SM00182	Eetwaren	Opsporen van soya-eiwit	Methode gebaseerd op de Veratox kit (Neogen)	ELISA
SM00794	Eetwaren	Opsporen van gluten-eiwit	Methode gebaseerd op de Veratox kit (Neogen)	ELISA
SM01561	Eetwaren	Opsporen van DNA van varken	Methode gebaseerd op kit van life technologies	RT-PCR
SM01562	Eetwaren	Opsporen van DNA van rund	Methode gebaseerd op kit van life technologies	RT-PCR
SM01563	Eetwaren	Opsporen van DNA van paard	Methode gebaseerd op kit van life technologies	RT-PCR
SM04051	Eetwaren	GMO screening (p34, p 35, tNOS merkerelementen)	Methode gebaseerd op kit van life technologies	RT-PCR
SM00684	Vlees en vleeswaren	Zetmeel	Gebaseerd op kit Boehringer Mannheim (Starch, UV method)	Enzymatische bepaling
SM00333	Eetwaren	Citroenzuur	Gebaseerd op kit Boehringer Mannheim (Citric acid, UV method)	Enzymatische bepaling
SM00353	Eetwaren	Ascorbinezuur	Methode gebaseerd op Boehringer Mannheim (L-Ascorbic acid, UV methode)	Enzymatische bepaling
SM00066	Vlees en vleeswaren	Glutaminezuur	Methode gebaseerd op Boehringer Mannheim (L-glutaminic acid, colorimetric method)	Enzymatische bepaling

ANORGANISCHE PARAMETERS				
Eetwaren en/of dierenvoeders				
SM00786	Vlees en vleeswaren	Vocht (droge stof)	ISO 1442	Gravimetrie
SM00449	Eetwaren (met uitzondering van vlees en vleeswaren) en dierenvoeders		Eigen methode (droging op 103 °C)	
SM00579	Eetwaren en dierenvoeder	Stikstof (eiwit)	ISO 1871	Kjeldahl methode
SM00022	Vlees en vleeswaren	Stikstof (eiwit)	ISO 937	Kjeldahl methode
SM00764	Eetwaren en dierenvoeder	Totale as	Afgeleid van ISO 936	Gravimetrie
SM00586	Eetwaren en dierenvoeder	Reducerende suikers na inversie	Afgeleid van EG/152/2009	Titrimetrie
SM01031	Eetwaren en dierenvoeder	Totaal vet	Eigen methode	Gravimetrie (geautomatiseerd)
SM00122	Eetwaren	Totale voedingsvezels	Afgeleid van A.S.L.00.00.18	Gravimetrie
SM00123	Eetwaren	As onoplosbaar in HCl	Afgeleid van ISO 763	Gravimetrie
SM00109	Eetwaren	Vrije vetzuren	Afgeleid van Verordening (EU) 2016/1227	Titrimetrie
SM00110	Eetwaren	Peroxydegetal	Eigen methode	Titrimetrie
SM00192	Eetwaren	Dichtheid	Afgeleid van ISO 2172	Pyknometrie
SM00744	Eetwaren met uitzondering van vlees en vleesproducten	pH	Afgeleid van ISO 1842	Potentiometrie

SM00009	Vlees en vleeswaren	Zout	ISO 1841-1	Volhard methode
SM00012	Vlees en vleeswaren	pH	Afgeleid van ISO 2917	Potentiometrie
SM00023	Vlees en vleeswaren	Vrij vet	ISO 1444	Gravimetrie
SM00026	Vlees en vleeswaren	Hydroxyproline	ISO 3496	Spectrofotometrie
SM00024	Vlees en vleeswaren	Nitriet	ISO 2918	Spectrofotometrie
SM00025	Vlees en vleeswaren	Nitraat	ISO 3091	Spectrofotometrie
SM00043	Vlees en vleeswaren	Totaal fosfor	Afgeleid van NEN ISO 13730	Spectrofotometrie
SM00796	Vis	Vluchtbare basen (TVB-N)	Afgeleid van Verordening (EG) 2074/2005	Destillatie en titrimetrie
SM00010	Brood en andere bakkerijproducten	Keukenzout op droge stof	KB van 29 oktober 1987 tot vaststelling van de geldige referentiemethoden voor de ontleding van producten op basis van meel	Titrimetrie en gravimetrie
SM00103	Brood en andere bakkerijproducten	Droge stof	KB van 29 oktober 1987 tot vaststelling van de geldige referentiemethoden voor de ontleding van producten op basis van meel	Gravimetrie
SM00088	Producten op basis van groenten en fruit	Totale zuurheid	Afgeleid van AOAC 942.15	Titrimetrie
SM00119	Producten op basis van groenten en fruit	Brix	Afgeleid van AOAC 932.14	Refractometrie
SM00891	Bier	Oorspronkelijk extract, alcoholgehalte en relatieve dichtheid	Eigen methode	Densitometrie en NIR

Waters				
SM00013	Drink-, afval-, grond- en oppervlaktewater	Geleidbaarheid	ISO 7888 WAC/III/A/004	Conductometrie
SM00053	Drink-, afval-, grond- en oppervlaktewater	pH	WAC/III/A/005	Potentiometrie
SM00148	Drink-, grond- en oppervlaktewater	Droogrest	WAC/III/A/001	Gravimetrie
SM00042	Drink-, grond- en oppervlaktewater	Bepaling van alkaliniteit en buffercapaciteit	ISO 9963-1 WAC/III/A/006	Titrimetrie
SM01576	Drink-, grond-, oppervlakte- en afvalwater	Totale hardheid	WAC/III/A/009	berekening van de totale hardheid uit Ca en Mg na ICP-MS
SM00360	Drink-, grond-, oppervlaktewater	Fluoride, chloride, nitraat, sulfaat, nitriet en orthofosfaat	NF EN ISO 10304 - 1 WAC/III/C/001	anionen-chromatografie
	Afvalwater	Chloride, nitraat, sulfaat en orthofosfaat		
SM01199	absorptievloeistoffen	HCl	LUC/III/001	anionenchromatografie
SM00029	afvalwater	Fluoride	WAC/III/C/020	ionselectieve electrode
SM01222	absorptievloeistoffen	HF	LUC/III/006	ionselectieve electrode
SM01367	Absorptievloeistoffen	SO <sub>x</sub> als sulfaat	NF EN ISO 10304-1 LUC/III/008	anionenchromatografie
SM00062	Afvalwater	Nitriet	WAC/III/C (NBN EN 26777)	Spectrofotometrie

SM00634	Drink-, afval-, grond- en oppervlaktewater	Ammonium stikstof (laag niveau) ( $\leq 2.0 \text{ mg N/l}$ )	ISO 7150 WAC/III/E/020	Manuele spectrometrie
SM00052	Drink-, grond- en oppervlaktewater	Oxydeerbaarheid	ISO 8467 WAC/III/D/022	Titrimetrie
SM00152	Afval-, grond- en oppervlaktewater	Kjeldahlstikstof	EN 25663 WAC/III/D/030	Digestie en titratie
SM00154	Afval-, grond- en oppervlaktewater	Oliën en vetten (met petroleumether extraheerbare stoffen)	WAC/IV/B/005	Gravimetrie
SM00163	Afval-, grond- en oppervlaktewater	Vaste stoffen in suspensie	NF EN 872 WAC/III/D/002	Gravimetrie
SM00512	Afval-, grond- en oppervlaktewater	Bezinkbare stoffen	WAC/III/D/001	Imhoffkegel
SM00511	Afval- en oppervlaktewater	Chemische zuurstofverbruik (CZV)	ISO 15705 WAC/III/D/020	Spectrofotometrie
SM01044	Afvalwater	BZV bepaling na 5 dagen	ISO 5815-1 WAC/III/D/010	Verdunning en enting met onderdrukking van nitrificatie – elektrochemie
SM00537	Afval-, grond- en oppervlaktewater	Totaal N	WAC/III/D	Berekening: som van Kjeldahl-N, nitraat-N en nitriet-N
SM00663	Afval-, grond- en oppervlaktewater	Opgelost Cr (VI)	WAC/III/C (ISO 11083)	Spectrofotometrie

AAS/ICP PARAMETERS					
Eetwaren en/of dierenvoeders					
SM01571	Eetwaren en dierenvoeding	Arseen, Cadmium, Kwik, Lood, Aluminium, IJzer, Koper, Nikkel, Zink	Eigen methode	microgolfdigestie en ICP-MS	
SM00074	Eetwaren	Tin	Eigen methode	Verassing en ICP-OES	
SM00446	Eetwaren	Natrium	Eigen methode	Digestie in digiprep en ICP-AES	
Waters					
SM01569	Drink-, afval-, grond- en oppervlaktewater	Hg	WAC/III/B/002 WAC/III/B/011 ISO 17294-01 en 02	ICP-MS	
SM04599	Drink-, afval-, grond- en oppervlaktewater	Ag, Al, As, B, Ba, Cd, Co, Cr, Cu, Fe, Mn, Mo, Ni, P, Pb, Sb, Se, Zn	WAC/III/B/002 WAC/III/B/011 ISO 17294-01 en 02	ICP-MS	
	Drinkwater, grondwater	Ca, Mg, K, Na			

CHROMATOGRAFISCHE PARAMETERS				
Eetwaren en/of dierenvoeders				
Code	Eetwaren	Bestuurde stoffen	Methode	Techniek
SM00002	Eetwaren	Benzoë- en sorbinezuur	Eigen methode	HPLC-UV
SM00716	Eetwaren	Vetzuurspectrum	Eigen methode	Vetextractie, methylering en GC-FID detectie
SM01410	Eetwaren	Glucose, Fructose, Saccharose, Maltose, Lactose, Sorbitol, Maltitol, Xylitol	Eigen methode	LC-MSMS
SM00230	Eetwaren	Wateroplosbare vitamines: Vitamine B1 (thiamine), Vitamine B2 (riboflavine), Vitamine B3 (niacine), Vitamine B5 (pantotheenzuur), Vitamine B6 (pyridoxine), Vitamine H (biotine)	Eigen methode met interne standaardisatie	LC-MSMS
SM00240	Eetwaren	Vetoplosbare vitamines: Vitamine A (retinol), Vitamine D2 (ergocalciferol), Vitamine D3 (cholecalciferol), Vitamine E (alfa-tocoferol)	Eigen methode met interne standaardisatie	LC-MSMS
SM00703	Eetwaren	Aspartaan, Saccharine, Acesulfam K	Eigen methode	HPLC-UV
SM00707	(Vaste en vloeibare) eetwaren	Cafeïne	Eigen methode	HPLC-UV
SM00712	Chocolade en chocolade bevattende producten	Theobromine	Eigen methode	HPLC-UV
SM00040	Eetwaren	Synthetisch wateroplosbare kleurstoffen (kwalitatief)	Eigen methode	TLC
SM00200	Eetwaren	Aflatoxines (G1, G2, B1, B2), Aflatoxine M1, Deoxynivalenol, Ochratoxine A, Fumonisine B1, Fumonisine B2, Toxine T2, Toxine HT2, Zearalenone	Eigen methode	LC-MSMS
SM00344	Fruit en groenten	Bromide en Nitraat	NF EN 12014-2	HPLC-IC
SM00809 (**)	Voedsel van dierlijke oorsprong: eieren & eiergeproducten, vlees	Fipronil en Fipronil sulfon	Eigen methode	QuEChERS methode met LC-MSMS

SM01400	Eetwaren	Acrylamide	Eigen methode met interne standaardisatie	LC-MSMS
SM00945	Eetwaren	Ethylene oxide en 2-chloro-ethanol	Eigen methode met interne standaardisatie	GC-MS headspace
SM00303	Eetwaren	Patuline	Eigen methode met interne standaardisatie	LC-MSMS
SM00715	Eetwaren	Cholesterol	Eigen methode met interne standaardisatie	LC-MSMS
SM00802	Groenten en fruit	Dithiocarbamaten	Eigen methode met interne standaardisatie	GC-MS
SM00941	Groenten en fruit	Residu's van ethephon, chlormequat, mepiquat, maleic hydrazide, chlorate, perchlorate, fosetyl, phosphonic acid	Eigen methode met interne standaardisatie	QuPPe methode met LC-MSMS

(\*\*) gevalideerd volgens de actuele versie van het SANTE document.

Waters en adsorptiepatronen				
SM00489	Drink-, oppervlakte-, en afvalwater	vluchtige organische chloorkoolwaterstoffen, mono-aromatische KWS		
		1,1-dichlooretheen	Isopropylbenzeen	
		Dichloormethaan	1,2,3-trichloorpropaan	
		1,2-dichlooretheen, trans	2-chloortolueen	
		1,1-dichloorethaan	4-chloortolueen	
		1,2- dichlooretheen, cis	1,3-dichloorbenzeen	
		Chloroform	1,4-dichloorbenzeen	
		1,1,1-trichloorethaan	1,2-dichloorbenzeen	
		1,2-dichloorethaan	1,3,5-trichoortolueen	
		koolstofftetrachloride	1,2,4-trichloorbenzeen	
		Trichlooretheen	1,2,3-trichloorbenzeen	
		Broomdichloormethaan	Naftaleen	
		1,1,2-trichloorethaan	1,3-dichloorpropaan	
		Dibroomchloormethaan	1,2-dibroomethaan	
		Tetrachlooretheen	1,1,1,2-tetrachloorethaan	
		Chloorbenzeen	vinylchloride	
		WAC/IV/A/016		
		GC-MS/headspace		

SM00489	Drink-, oppervlakte-, en afvalwater	Chloorethaan	broombenzeen	WAC/IV/A/016	GC-MS/headspace
		2,2-dichloorpropaan	n-propylbenzeen		
		Broomchloormethaan	1,3,5-trimethylbenzeen		
		1,1-dichloorpropeen	tert-butylbenzeen		
		1,2-dichloorpropaan	1,2,4-trimethylbenzeen		
		Dibroommethaan	sec-butylbenzeen		
		1,3-dichloorpropeen, cis	p-isopropyltolueen		
		1,3-dichloorpropeen, trans	n-butylbenzeen		
		Styreen	1,2-dibroom-3-chloorpropaan		
		bromoform	Hexachloorbutadien		
		1,1,2,2-tetrachloorethaan	1,2,3-trimethylbenzeen		
		BETXs (benzeen, ethylbenzeen, tolueen, m + p-xyleen, o-xyleen)			
		MTBE (methyl-tert.butylether)			
SM00723	Drinkwater	Poly-aromatische koolwaterstoffen (PAK) (Borneff)		Eigen methode	HPLC-FLD
		benzo(a)pyreen	indeno(1,2,3-cd)pyreen		
		benzo(b)fluorantheen	benzo(ghi)peryleen		
		benzo(k)fluorantheen			

SM01254	Drinkwater	Acrylamide	Eigen methode met interne standaardisatie	LC-MSMS
SM04044	Drinkwater	Epichloorhydrine	Eigen methode	LC-MSMS
SM04615	Drinkwater	Bisfenol A	Eigen methode	GC-MSMS
SM01369	Op carboxen 1000 geadsorbeerde moleculen	Alcoholen en ketonen	LUC/IV/007 LUC/IV/009	GC-MS
SM01232	Op aktief kool geadsorbeerde moleculen	Aromatische KWS, alifatische halogeen KWS, paraffinische acrylaten, esters, ethers, KWS	LUC/IV/001-002-004-006-008	GC-MS

BEMONSTERINGEN (in situ)				
SM00556	Afvalwater	Debietmeting	WAC/I/A/004 WAC/I/A/012	met alle types van meetshotten
SM00560	Afval- en oppervlaktewater	Proportionele bemonstering	WAC/I/A/004	(tijdsgebonden)
SM00561	Afvalwater	Proportionele bemonstering	WAC/I/A/004 WAC/I/A/012	(debietgebonden - ultrasoon debietmeter of borrelbuisprincipe)
SM01200	Gasemissies	Volumedebiet en gassnelheid met pitotbuis	LUC/0/004	drukverschil mbv pitotbuis
		Meting van rookgastemperatuur	LUC/0/002	thermokoppel
SM01201	Gasemissies	Stofbemonstering en analyse	LUC/I/001 LUC/0/005	gravimetrische methode
SM01203	Gasemissies	Waterdampgehalte in afgassen	LUC/0/003	condensatie/adsorptie met silicagel
SM01204	Gasemissies	Gasvormig anorganisch HF	LUC/III/006	aanzuiging met verwarmde sonde in het gaskanaal en absorptie van gasvormig anorganisch HF in NaOH 0,1 N
SM01205	Gasemissies	Gasvormig anorganisch HCl	LUC/III/0001	aanzuiging met verwarmde sonde in het gaskanaal en absorptie van gasvormig anorganisch HCl in water
SM01366	Gasemissies	Gasvormig SO <sub>x</sub>	LUC/III/008	aanzuiging met specifieke sonde en absorptie in H <sub>2</sub> O <sub>2</sub>
SM01207	Gasemissies	Monitoring van zuurstof, CO <sub>2</sub> , CO, SO <sub>2</sub> en NO <sub>x</sub>	LUC/II/001	O <sub>2</sub> : paramagnetisme CO, CO <sub>2</sub> , SO <sub>2</sub> : IR NOx: chemoluminescentie
SM01208	Gasemissies	Totaal gehalte aan organische koolstof	LUC/II/001	FID detectie
SM01233	Gasemissies	Bemonstering van organische componenten met adsorptiepatronen	LUC/IV/000	aanzuiging op aktief kool/carboxen 1000

EXTERNE METINGEN (in situ)				
SM00147	Drink-, afval-, grond- en oppervlaktewater	Temperatuur	WAC/I/A/011	
SM00149	Drink-, afval-, grond- en oppervlaktewater	Opgeloste zuurstof	WAC/I/A/011	Chemiluminescentie
SM00690	Drink-, afval-, grond- en oppervlaktewater	Geleidbaarheid	WAC/I/A/011	Conductometrische doorstroomcel
SM01196	Drink-, afval-, grond- en oppervlaktewater	pH	WAC/I/A/011	Potentiometrie

Algemene code	Product/ Matrix	Gemeten eigenschap/parameter (type test)	Test- of meetprincipe/ meettechniek
<b>FLEXIBELE SCOPE</b>			
<b>CHROMATOGRAFISCHE PARAMETERS</b>			
<b>Eetwaren en/of dierenvoeders</b>			
SM00809 (**)	Plantaardige matrices (*)	Residu's van pesticiden (*)	QuEChERS methode met GC-MSMS en LC-MSMS
<p>(*) Het laboratorium heeft de toelating om de gemeten eigenschappen/parameters, behorende tot de vermelde groep van gemeten eigenschappen/parameters, onder accreditatie te bepalen voor de producten/matrices, behorende tot de vermelde groep van producten/matrices, en dit volgens methoden die het vernoemde test-of meetprincipe of de vernoemde meettechniek hanteren. Deze toelating wordt gegeven op voorwaarde dat een aangepaste validatie en/of verificatie is uitgevoerd overeenkomstig het globaal validatie- en/of verificatieconcept, zoals vastgelegd in het managementsysteem van het laboratorium en de bepalingen van BELAC 2-002 en BELAC 2-101 en overeenkomstig BELAC 2-104 "Criteria waaraan de geaccrediteerde laboratoria moeten beantwoorden die een flexibele scope aanvragen voor analyse van residu's van pesticiden in plantaardige producten".</p> <p>Het laboratorium houdt, ten behoeve van elke aanvrager, een geactualiseerde en gedetailleerde lijst bij van de specifieke beproevingen (in termen van specifieke gemeten eigenschappen/parameters behorende tot de vermelde groep van gemeten eigenschappen/parameters, specifieke producten/matrices behorende tot de vermelde groep van producten/matrices en specifieke testmethoden) die onder accreditatie uitgevoerd worden. Opvraagbaar via E-mail: info@lovap.be</p>			
<p>(**) gevalideerd volgens de actuele versie van het SANTE document.</p>			
<b>Waters</b>			
SM04590	Water (***)	Individuele PFAS en diverse somparameters (***)	Solid Phase Extraction - LC-MSMS
<p>(***) Het laboratorium heeft de toelating om de gemeten eigenschappen/parameters, behorende tot de vermelde groep van gemeten eigenschappen/parameters, onder accreditatie te bepalen voor de producten/matrices, behorende tot de vermelde groep van producten/matrices, en dit volgens methoden die het vernoemde test-of meetprincipe of de vernoemde meettechniek hanteren. Deze toelating wordt gegeven op voorwaarde dat een aangepaste validatie en/of verificatie is uitgevoerd overeenkomstig het globaal validatie- en/of verificatieconcept, zoals vastgelegd in het managementsysteem van het laboratorium en de bepalingen van BELAC 2-002 en BELAC 2-101.</p> <p>Het laboratorium houdt, ten behoeve van elke aanvrager, een geactualiseerde en gedetailleerde lijst bij van de specifieke beproevingen (in termen van specifieke gemeten eigenschappen/parameters behorende tot de vermelde groep van gemeten eigenschappen/parameters, specifieke producten/matrices behorende tot de vermelde groep van producten/matrices en specifieke testmethoden) die onder accreditatie uitgevoerd worden. Opvraagbaar via E-mail: info@lovap.be</p>			

Test code	Product/ Matrix	Measured property/ parameter (type of test)	Reference to test method	Test or measurement principle/measurement technique
<b>MICROBIOLOGICAL PARAMETERS</b>				
Food and/or feed				
SM00132	Food	Anaerobic plate count at 37 °C	SP-VG M005 (1998)	Enumeration
SM00413	Food and feed, swabs	Aerobic mesophilic plate count at 30 °C	ISO 4833 -1	Enumeration
SM00417	Food	Coagulase positive staphylococci	ISO 6888-1	Enumeration
SM01574	Food and feed, swabs	Enterobacteriaceae at 37 °C	AFNOR BRD 07/24-11/13	Enumeration
SM00415	Food	Coliforms at 30 °C	ISO 4832	Enumeration
SM00416	Food	Thermotolerant coliforms at 44 °C	NF V08-060	Enumeration
SM00386	Food	Presumptive <i>Bacillus cereus</i> at 30 °C	ISO 7932	Enumeration
SM00404	Food	Beta-glucuronidase positive <i>Escherichia coli</i>	ISO 16649-2	Enumeration
SM00407	Food and feed	<i>Clostridium perfringens</i>	ISO 7937	Enumeration
SM00418	Food	Fungi and Yeasts at 25 °C	ISO 21527-1 and ISO 21527-2	Enumeration
SM00699	Food and feed	Sulfite reducing anaerobes	ISO 15213	Enumeration
SM00405	Food	Lactic acid bacteria	ISO 15214	Enumeration
SM00142	Food	Enterococci	Derived from NEN 6817	Enumeration
SM00406	Food	Enumeration of <i>Listeria monocytogenes</i>	AFNOR BRD-07/05-09/01	Enumeration

SM00977	Meat and meat products	Campylobacter	Microval MV2008LR12	Enumeration
SM00199	Yogurt	Lactobacillus bulgaricus and Streptococcus thermophilus	Based on ISO 7889	Enumeration
SM00390	Yogurt	Presumptive Bifidobacterium	ISO 29981	Enumeration
SM00419	Food and feed, swabs	Salmonella	AFNOR BRD 07/11-12/05 Rapid Salmonella short protocol	Detection
SM01573	Food	Detection of Listeria and Listeria monocytogenes	AFNOR BRD-07/4-09/98	Detection
SM00408	Swabs			
SM01262	Fish, crustaceans and shellfish	Potentially enteropathogenic Vibrio parahaemolyticus	ISO 21872-1	Detection
SM00813	Kidneys	Detection of residues of substances with a growth inhibitory effect	Official method MB 1995/06/19 (New Belgian Kidney Test)	Agar diffusion
SM04008	Food, Swabs	Presumptive STEC	AOAC 121203 iQ-Check STEC VirX and SerO real-time PCR	Detection
<b>Waters</b>				
SM00400	Drinking water	Total plate count at 22 °C and at 37 °C	ISO 6222 WAC/V/A/001	Enumeration
SM00047	Drinking water	Coliforms and Escherichia coli	ISO 9308-1 WAC/V/A/002	Enumeration after membrane filtration
SM00403	Drinking water	Enterococci	ISO 7899-2 WAC/V/A/003	Enumeration after membrane filtration
SM00402	Drinking water	Pseudomonas aeruginosa	ISO 16266 WAC/V/A/006	Enumeration after membrane filtration
SM00380	Drinking water	Clostridium perfringens	ISO 14189 WAC/V/A/007	Enumeration after membrane filtration
SM00131	Drinking water	Salmonella	ISO 19250 WAC/V/A/004	Detection after membrane filtration

ELISA, Real Time PCR and Enzymatic				
SM00116	Food	Detection of whey protein and casein protein	Method based on Veratox kit (Neogen)	ELISA
SM00182	Food	Detection of soy protein	Method based on Veratox kit (Neogen)	ELISA
SM00794	Food	Detection of gluten protein	Method based on Veratox kit (Neogen)	ELISA
SM01561	Food	Detection of pork DNA	Method based on kit from life technologies	RT-PCR
SM01562	Food	Detection of beef DNA	Method based on kit from life technologies	RT-PCR
SM01563	Food	Detection of horse DNA	Method based on kit from life technologies	RT-PCR
SM04051	Food	GMO screening (p34, p 35, tNOS marker elements)	Method based on kit from life technologies	RT-PCR
SM00684	Meat and meat products	Starch	Based on kit Boehringer Mannheim (Starch, UV method)	Enzymatic determination
SM00333	Food	Citric acid	Based on kit Boehringer Mannheim (Citric acid, UV method)	Enzymatic determination
SM00353	Food	Ascorbic acid	Method based on Boehringer Mannheim (L-Ascorbic acid, UV method)	Enzymatic determination
SM00066	Meat and meat products	Glutaminic acid	Method based on Boehringer Mannheim (L-glutaminic acid, colorimetric method)	Enzymatic determination

INORGANIC PARAMETERS				
Food and/or feed				
SM00786	Meat and meat products	Moisture (dry matter)	ISO 1442	Gravimetry
SM00449	Food (with the exception of meat and meat products) and feed		In house method (drying at 103 °C)	
SM00579	Food and feed	Nitrogen (protein)	ISO 1871	Kjeldahl method
SM00022	Meat and meat products	Nitrogen (protein)	ISO 937	Kjeldahl method
SM00764	Food and feed	Total ash	Derived from ISO 936	Gravimetry
SM00586	Food and feed	Reducing sugars after inversion	Derived from EG/152/2009	Titrimetry
SM01031	Food and feed	Total fat	In house method	Gravimetry (automated)
SM00122	Food	Total dietary fiber	Derived from A.S.L.00.00.18	Gravimetry
SM00123	Food	Ash insoluble in HCl	Derived from ISO 763	Gravimetry
SM00109	Food	Free fatty acids	Derived from Regulation (EU) 2016/1227	Titrimetry
SM00110	Food	Peroxide value	In house method	Titrimetry
SM00192	Food	Density	Derived from ISO 2172	Pyknometry
SM00744	Food with the exception of meat and meat products	pH	Derived from ISO 1842	Potentiometry

SM00009	Meat and meat products	Salt	ISO 1841-1	Volhard method
SM00012	Meat and meat products	pH	Derived from ISO 2917	Potentiometry
SM00023	Meat and meat products	Free fat	ISO 1444	Gravimetry
SM00026	Meat and meat products	Hydroxyproline	ISO 3496	Spectrophotometry
SM00024	Meat and meat products	Nitrite	ISO 2918	Spectrophotometry
SM00025	Meat and meat products	Nitrate	ISO 3091	Spectrophotometry
SM00043	Meat and meat products	Total phosphorus	Derived from NEN ISO 13730	Spectrophotometry
SM00796	Fish	Total volatile basic nitrogen (TVB-N)	Derived from Regulation (EG) 2074/2005	Destillation and titrimetry
SM00010	Bread and other bakery products	Table salt on dry matter	Royal Decree of 29 October 1987 establishing the valid reference methods for the decomposition of products based on flour	Titrimetry and gravimetry
SM00103	Bread and other bakery products	Dry matter	Royal Decree of 29 October 1987 establishing the valid reference methods for the decomposition of products based on flour	Gravimetry
SM00088	Products based on fruits and vegetables	Total acidity	Derived from AOAC 942.15	Titrimetry
SM00119	Products based on fruits and vegetables	Brix	Derived from AOAC 932.14	Refractometry
SM00891	Beer	Original extract, alcohol content, relative density	Densitometry and NIR	In house method

Waters				
SM00013	Drinking water, waste water, ground water and surface water	Conductivity	ISO 7888 WAC/III/A/004	Conductometry
SM00053	Drinking water, waste water, ground water and surface water	pH	WAC/III/A/005	Potentiometry
SM00148	Drinking water, ground water and surface water	Dry residue	WAC/III/A/001	Gravimetry
SM00042	Drinking water, ground water and surface water	Determination of alkalinity and buffer capacity	ISO 9963-1 WAC/III/A/006	Titrimetry
SM01576	Drinking water, waste water, ground water and surface water	Total hardness	WAC/III/A/009	calculation of total hardness from Ca and Mg after ICP-MS
SM00360	Drinking water, ground water and surface water	Fluoride, chloride, nitrate, sulfate, nitrite and orthophosphate	NF EN ISO 10304 - 1 WAC/III/C/001	anion chromatography
	Waste water	Chloride, nitrate, sulfate and orthophosphate		
SM01199	Absorption liquid	HCl	LUC/III/001	anion chromatography
SM00029	Waste water	Fluoride	WAC/III/C/020	ion-selective electrode
SM01222	Absorption liquid	HF	LUC/III/006	ion-selective electrode
SM01367	Absorption liquid	SO <sub>x</sub> as sulfate	NF EN ISO 10304-1 LUC/III/008	anion chromatography
SM00062	Waste water	Nitrite	WAC/III/C (NBN EN 26777)	Spectrophotometry

SM00634	Drinking water, waste water, ground water and surface water	Ammonium nitrogen (low level) ( $\leq 2,0 \text{ mg N/l}$ )	ISO 7150 WAC/III/E/020	Manual spectrometry
SM00052	Drinking water, ground water and surface water	Oxidizability	ISO 8467 WAC/III/D/022	Titrimetry
SM00152	Waste water, ground water and surface water	Kjeldahl nitrogen	EN 25663 WAC/III/D/030	Digestion and titration
SM00154	Waste water, ground water and surface water	Oils and fats (with petroleum ether extractable substances)	WAC/IV/B/005	Gravimetry
SM00163	Waste water, ground water and surface water	Suspended solids	NF EN 872 WAC/III/D/002	Gravimetry
SM00512	Waste water, ground water and surface water	Settable solids	WAC/III/D/001	Imhoff cone
SM00511	Waste water and surface water	Chemical oxygen demand (COD)	ISO 15705 WAC/III/D/020	Spectrophotometry
SM01044	Waste water	BOD determination after 5 days	ISO 5815-1 WAC/III/D/010	Dilution and seeding with suppression of nitrification - electrochemistry
SM00537	Waste water, ground water and surface water	Total N	WAC/III/D	Calculation: sum of Kjeldahl-N, nitrate-N en nitrite-N
SM00663	Waste water, ground water and surface water	Dissolved Cr (VI)	WAC/III/C (ISO 11083)	Spectrophotometry

AAS/ICP PARAMETERS				
Food and/or feed				
SM01571	Food and feed	Arsenic, Cadmium, Mercury, Lead, Aluminium, Iron, Copper, Nickel, Zinc	In house method	microwave digestion and ICP-MS
SM00074	Food	Tin	In house method	ashing and ICP-OES
SM00446	Food	Sodium	In house method	Digestion in digiprep and ICP-AES
Waters				
SM01569	Drinking water, waste water, ground water and surface water	Hg	WAC/III/B/002 WAC/III/B/011 ISO 17294-01 and 02	ICP-MS
SM04599	Drinking water, waste water, ground water and surface water	Ag, Al, As, B, Ba, Cd, Co, Cr, Cu, Fe, Mn, Mo, Ni, P, Pb, Sb, Se, Zn	WAC/III/B/002 WAC/III/B/011 ISO 17294-01 and 02	ICP-MS
	Drinking water and ground water	Ca, Mg, K, Na		

CHROMATOGRAPHIC PARAMETERS				
Food and/or feed				
SM00002	Food	Benzoic acid and sorbic acid	In house method	HPLC-UV
SM00716	Food	Fatty acid spectrum	In house method	Fat extraction, methylation and GC-FID detection
SM01410	Food	Glucose, Fructose, Sucrose, Maltose, Lactose, Sorbitol, Maltitol, Xylitol	In house method	LC-MSMS
SM00230	Food	Water soluble vitamins: Vitamin B1 (thiamine), Vitamin B2 (riboflavin), Vitamin B3 (niacin), Vitamin B5 (pantothenic acid), Vitamin B6 (pyridoxine), Vitamin H (biotin)	In house method with internal standardization	LC-MSMS
SM00240	Food	Fat soluble vitamins: Vitamin A (retinol), Vitamin D2 (ergocalciferol), Vitamin D3 (cholecalciferol), Vitamin E (alpha-tocopherol)	In house method with internal standardization	LC-MSMS
SM00703	Food	Aspartame, Saccharin, Acesulfam K	In house method	HPLC-UV
SM00707	(Solid and liquid) food	Caffeine	In house method	HPLC-UV
SM00712	Chocolate and chocolate containing products	Theobromine	In house method	HPLC-UV
SM00040	Food	Synthetic water soluble colorants (qualitative)	In house method	TLC
SM00200	Food	Aflatoxins (G1, G2, B1, B2), Aflatoxin M1, Deoxynivalenol, Ochratoxin A, Fumonisin B1, Fumonisin B2, Toxin T2, Toxin HT2, Zearalenone	In house method	LC-MSMS
SM00344	Fruit and vegetables	Bromide and Nitrate	NF EN 12014-2	HPLC-IC
SM00809 (**)	Food of animal origin: eggs & egg products, meat	Fipronil and Fipronil sulfon	In house method	QuEChERS method with LC-MSMS

SM01400	Food	Acrylamide	In house method with internal standardization	LC-MSMS
SM00945	Food	Ethylene oxide and 2-chloro-ethanol	In house method with internal standardization	GC-MS headspace
SM00303	Food	Patuline	In house method with internal standardization	LC-MSMS
SM00715	Food	Cholesterol	In house method with internal standardization	LC-MSMS
SM00802	Fruit and vegetables	Dithiocarbamates	In house method with internal standardization	GC-MS
SM00941	Fruit and vegetables	Residues of ethephon, chlormequat, mepiquat, maleic hydrazide, chlorate, perchlorate, fosetyl, phosphonic acid	In house method with internal standardization	QuPPe method with LC-MSMS
(**) validated according to the current version of the SANTE document.				

Waters and adsorption tubes			
SM00489	Drinking water, surface water and waste water	Volatile organic chlorinated hydrocarbons, mono aromatic hydrocarbons	
		1,1-dichloroethylene	Isopropylbenzene
		Dichloromethane	1,2,3-trichloropropane
		1,2-dichloroethylene, trans	2-chlorotoluene
		1,1-dichloroethane	4-chlorotoluene
		1,2-dichloroethylene, cis	1,3-dichlorobenzene
		Chloroform	1,4-dichlorobenzene
		1,1,1-trichloroethane	1,2-dichlorobenzene
		1,2-dichloroethane	1,3,5-trichlorobenzene
		Carbon tetrachloride	1,2,4-trichlorobenzene
		Trichloroethylene	1,2,3-trichlorobenzene
		Bromodichloromethane	Naphthalene
		1,1,2-trichloroethane	1,3-dichloropropane
		Dibromochloromethane	1,2-dibromoethane
		Tetrachloroethylene	1,1,1,2-tetrachloroethane
		Chlorobenzene	Vinylchloride
		WAC/IV/A/016	GC-MS/headspace

SM00489	Drinking water, surface water and waste water	Chloroethane	Bromobenzene	WAC/IV/A/016	GC-MS/headspace		
		2,2-dichloropropane	n-propylbenzene				
		Bromochloromethane	1,3,5-trimethylbenzene				
		1,1-dichloropropene	tert-butylbenzene				
		1,2-dichloropropane	1,2,4-trimethylbenzene				
		Dibromomethane	sec-butylbenzene				
		1,3-dichloropropene, cis	p-isopropyltoluene				
		1,3-dichloropropene, trans	n-butylbenzene				
		Styrene	1,2-dibromo-3-chloropropane				
		Bromoform	Hexachlorobutadiene				
		1,1,2,2-tetrachloroethane	1,2,3-trimethylbenzene				
		BETXs (benzene, ethylbenzene, toluene, m + p-xylene, o-xylene)					
		MTBE (methyl-tert.butylether)					
SM00723	Drinking water	Poly aromatic hydrocarbons (PAH) (Borneff)		In house method	HPLC-FLD		
		benzo(a)pyrene	indeno(1,2,3-cd)pyrene				
		benzo(b)fluoranthene	benzo(ghi)perylene				
		benzo(k)fluoranthene					

SM01254	Drinking water	Acrylamide	In house method with internal standardization	LC-MSMS
SM04044	Drinking water	Epichlorohydrin	In house method	LC-MSMS
SM04615	Drinking water	Bisphenol A	In house method	GC-MSMS
SM01369	On carboxen 1000 adsorbed molecules	Alcohols and ketons	LUC/IV/007 LUC/IV/009	GC-MS
SM01232	On activated carbon adsorbed molecules	Aromatic hydrocarbons, aliphatic halogen hydrocarbons, paraffinic acrylates, esters, ethers, hydrocarbons	LUC/IV/001-002-004-006-008	GC-MS

SAMPLING METHODS (in situ)				
SM00556	Waste water	Flow measurement	WAC/I/A/004 WAC/I/A/012	with all types of venturi flumes
SM00560	Waste water and surface water	Proportional sampling	WAC/I/A/004	(time related)
SM00561	Waste water	Proportional sampling	WAC/I/A/004 WAC/I/A/012	(flow related – ultrasonic flow meter or bubble tube level system)
SM01200	Gas emissions	Volume flow and gas velocity using pitot tube	LUC/0/004	pressure difference using pitot tube
		Measurement of waste gas temperature	LUC/0/002	thermocouple
SM01201	Gas emissions	Dust sampling and analysis	LUC/I/001 LUC/0/005	gravimetric method
SM01203	Gas emissions	Water vapour in waste gases	LUC/0/003	condensation/adsorption with silicagel
SM01204	Gas emissions	Gaseous inorganic HF	LUC/III/006	suction with heated probe in the gas channel and absorption of gaseous inorganic HF in NaOH 0,1 N
SM01205	Gas emissions	Gaseous inorganic HCl	LUC/III/0001	suction with heated probe in the gas channel and absorption of gaseous inorganic HCl in water
SM01366	Gas emissions	Gaseous SO <sub>x</sub>	LUC/III/008	suction with specific probe and absorption in H <sub>2</sub> O <sub>2</sub>
SM01207	Gas emissions	Monitoring of oxygen, CO <sub>2</sub> , CO, SO <sub>2</sub> and NO <sub>x</sub>	LUC/II/001	O <sub>2</sub> : paramagnetism CO, CO <sub>2</sub> , SO <sub>2</sub> : IR NOx: chemoluminescence
SM01208	Gas emissions	Total amount of organic carbons	LUC/II/001	FID detection
SM01233	Gas emissions	Sampling of organic compounds with adsorption tubes	LUC/IV/000	Suction on activated carbon/carboxen 1000

EXTERNAL MEASUREMENTS (in situ)				
SM00147	Drinking water, waste water, ground water and surface water	Temperature	WAC/I/A/011	
SM00149	Drinking water, waste water, ground water and surface water	Dissolved oxygen	WAC/I/A/011	Chemiluminescence
SM00690	Drinking water, waste water, ground water and surface water	Conductivity	WAC/I/A/011	Conductometric flow cell
SM01196	Drinking water, waste water, ground water and surface water	pH	WAC/I/A/011	Potentiometry

General code	Product/ Matrix	Measured property/ parameter (type of test)	Test or measurement principle/ measurement technique
<b>FLEXIBLE SCOPE</b>			
<b>CHROMATOGRAPHIC PARAMETERS</b>			
Food and/or feed			
SM00809 (**)	Plant matrices (*)	Residues of pesticides (*)	QuEChERS method with GC-MSMS and LC-MSMS
<p>(*) The laboratory is authorised to determine under accreditation the properties/parameters belonging to the mentioned group of measured properties/parameters for the products/matrices belonging to the mentioned group of products/matrices and this according to methods that use the mentioned test or measurement principle or the mentioned measurement technique. This authorisation is given on condition that an appropriate validation and/or verification has been carried out in accordance with the global validation and/or verification concept, as laid down in the laboratory's management system and the provisions of BELAC 2-002 and BELAC 2-101 and in accordance with the document BELAC 2-104 "Criteria that accredited laboratories must meet that request a flexible scope for analysis of pesticides residues in plant products".</p> <p>The laboratory shall make available to each applicant, an up-to-date and detailed list of the specific tests (in terms of specific measured properties/parameters belonging to the mentioned group of measured properties/parameters, specific products/matrices belonging to the mentioned group of products/matrices and specific test methods) that are executed under accreditation. Can be requested via E-mail: info@lovap.be</p>			
<p>(**) validated according to the current version of the SANTE document.</p>			
<b>Waters</b>			
SM04590	Water (***)	Individual PFAS and various sum parameters (***)	Solid Phase Extraction - LC-MSMS
<p>(*) The laboratory is authorised to determine under accreditation the properties/parameters belonging to the mentioned group of measured properties/parameters for the products/matrices belonging to the mentioned group of products/matrices and this according to methods that use the mentioned test or measurement principle or the mentioned measurement technique. This authorisation is given on condition that an appropriate validation and/or verification has been carried out in accordance with the global validation and/or verification concept, as laid down in the laboratory's management system and the provisions of BELAC 2-002 and BELAC 2-101.</p> <p>The laboratory shall make available to each applicant, an up-to-date and detailed list of the specific tests (in terms of specific measured properties/parameters belonging to the mentioned group of measured properties/parameters, specific products/matrices belonging to the mentioned group of products/matrices and specific test methods) that are executed under accreditation. Can be requested via E-mail: info@lovap.be</p>			