



Organisme belge d'Accréditation
Belgische Accreditatieinstelling
Belgische Akkreditierungsstelle
Belgian Accreditation Body

Signatory to EA, ILAC and IAF
Multilateral Agreements

Accreditation Certificate No. 531-CAL

In compliance with the provisions of the Royal Decree of 31 January 2006 setting up BELAC, the Accreditation Board hereby declares, that the calibration laboratory

CHEM-LAB NV
Industriezone "De Arend", 2
8210 ZEDELGEM - Belgium

has the competence to perform the calibrations as described in the annex which is an integral part of the present certificate, in accordance with the requirements of the standard EN ISO/IEC 17025:2017. The present accreditation is the subject of regular surveillance in order to confirm the compliance with the accreditation conditions.

The Chair of the Accreditation Board BELAC,

A handwritten signature in black ink, appearing to read 'Nicole Meurée-Vanlaethem', is written over a light blue circular background.

Nicole MEURÉE-VANLAETHEM

Issue date : 2019-06-27

Validity date : 2023-03-05

Original version of this certificate is in Dutch.



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Bijlage bij accreditatie-certificaat
Annexe au certificat d'accréditation
Annex to the accreditation certificate
Beilage zur Akkreditierungszertifikat

531-CAL

EN ISO/IEC 17025:2017

Versie/Version/Fassung	6
Uitgiftedatum / Date d'émission / Issue date / Ausgabedatum:	2019-06-27
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Nicole Meurée-Vanlaethem
Voorzitster van het Accreditatiebureau
La Présidente du Bureau d'Accréditation
Chair of the Accreditation Board
Vorsitzende des Akkreditierungsbüro

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

**Chem-Lab nv
Industriezone "De Arend", 2
8210 ZEDELGEM**

Secrétariat :
Service public fédéral Economie,
P.M.E., Classes moyennes et Energie
Direction générale de la Qualité et de la Sécurité
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Bd du Roi Albert II 16
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Numéro d'entreprise : 0314.595.348

Accréditation B E L A C Accreditation

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Federale Overheidsdienst Economie,
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Algemene Directie Kwaliteit en Veiligheid
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Website: <https://economie.fgov.be>
Ondernemingsnummer: 0314.595.348

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EG-0030

Calibration and Measurement Capabilities			
Product	Concentration range (at 20°C)	expanded uncertainty (*)	calibration procedure/method
Anorganic standards in aqueous solution – Monoelements <i>-Anions : Chloride, Bromide, Fluoride, Nitrite, Nitrate, Sulphate, Phosphate, Acetate, Bromate, Formate, Phthalate</i>	900 mg/L tot 100.000 mg/L	0,5 % to 1,0 %	BM001 comment (1)
Anorganic standards in aqueous solution – Multielements: <i>-Anions : Chloride, Bromide, Fluoride, Nitrite, Nitrate, Sulphate, Phosphate</i> <i>-Cations : Ag, Al, As, Au, B, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Dy, Er, Eu, Fe, Ga, Gd, Ge, Hf, Hg, Ho, In, Ir, K, La, Li, Lu, Mg, Mn, Mo, Na, Nb, Nd, Ni, Os, P, Pb, Pd, Pr, Pt, Rb, Re, Rh, Ru, S, Sb, Sc, Se, Si, Sm, Sn, Sr, Ta, Tb, Te, Th, Ti, Tl, Tm, U, V, W, Y, Yb, Zn, Zr</i>	1 mg/L to 11.000 mg/L	1 % to 2 %	
Organic standards in organic solvents– Monocomponents: <i>-Volatiles: Dichlorodifluoromethane; Chloromethane; Vinyl Chloride; Bromomethane; Chloroethane; Trichlorofluoromethane; trans-1,2-Dichloroethene; Methylene Chloride; cis-1,2-Dichloroethene; 1,1-Dichloroethane; 1,1-Dichloroethene; 2,2-Dichloropropane; Bromochloromethane; Chloroform; 1,1,1-Trichloroethane; 1,2-Dichloroethane; cis-1,3-Dichloropropene; Benzene; Carbon Tetrachloride; 1,2-Dichloropropane; Trichloroethene; Dibromomethane; Bromodichloromethane; trans-1,3-Dichloropropene; 1,1-Dichloropropene; Toluene; 1,1,2-Trichloroethane; 1,3-Dichloropropane; Dibromochloromethane; 1,2-Dibromoethane; Tetrachloroethene; Chlorobenzene; 1,1,1,2-Tetrachloroethane; Ethylbenzene; m-Xylene; p-Xylene; Bromoform; Styrene; o-Xylene; 1,1,2,2-Tetrachloroethane; 1,2,3-Trichloropropane; Isopropylbenzene; Bromobenzene; n-Propylbenzene; 2-Chlorotoluene; 4-Chlorotoluene; 1,3,5-Trimethylbenzene; tert-Butylbenzene; 1,2,4-Trimethylbenzene; 1,3-Dichlorobenzene; sec-Butylbenzene; 1,4-Dichlorobenzene; p-Isopropyltoluene; 1,2-Dichlorobenzene; n-Butylbenzene; 1,2-Dibromo-3-Chloropropane; 1,2,4-Trichlorobenzene; Naphthalene; Hexachlorobutadiene; 1,2,3-Trichlorobenzene</i> <i>-Phenols: phenol; 2-chlorophenol; 2-methylphenol (o-cresol); m-Cresol; p-Cresol; 2-nitrophenol; 2,4-dimethylphenol; 2,4-dichlorophenol; 2,6-Dichlorophenol; 4-chloro-3-methylphenol; 2,4,5-Trichlorophenol; 2,4,6-trichlorophenol; 2,4-dinitrophenol; 4-nitrophenol; 2,3,5,6-Tetrachlorophenol; 2,3,4,5-Tetrachlorophenol; 2,3,4,6-Tetrachlorophenol; 2-methyl-4,6-dinitrophenol; pentachlorophenol; Dinoseb; Dinex</i> <i>-PAHs : Naphthalene; Acenaphthylene; Acenaphthene; Fluorene; Phenanthrene; Anthracene; Fluoranthene; Pyrene; Benz[a]anthracene; Chrysene; Benzo[b]fluoranthene; Benzo[k]fluoranthene; Benzo[a]pyrene; Indeno[1,2,3,c,d]pyrene; Dibenz[a,h]anthracene; Benzo[g,h,i]perylene</i>	90 mg/L tot 200.000 mg/L	1,0 % to 4,0 %	

Product	Concentration range (at 20°C)	expanded uncertainty (*)	calibration procedure/method
<p>Organic standards in organic solvents– Monocomponents:</p> <p>-Pesticides : Etridiazole; Chlorneb; alfa-HCH; beta-HCH; Simazine; Atrazine; delta.HCH; Chlorothalonil; Lindane; Alachlor; Heptachlor; Aldrin; DCPA (Dacthal); Heptachlor epoxide; cis-Chlordane; Endosulfan I; Dichlorphos; EPTC; Mevinphos; Butylate; Vernolate; Pebulate; Tebuthiuron; Molinate; Propachlor; Cycloate; Ethoprophos; Chlorpropham; Trifluralin; Atraton; Prometon; Atrazine; Propazine; Propyzamide; Methyl Paraoxon; Turbacil; Metribuzin; Alachlor; Simetryn; Ametryn; Prometryn; Terbutryn; Metolachlor; Chlorpyrifos; Bromacil; Triademefon; Cyanazine; Diphenamid; MGK 275 (Isomer 1); MGK 275 (Isomer 2); Stirifos (Tetrachlorvinphos); Butachlor; Propanamide; Tricyclazole; Norflurazon; Hexazinone; Fenarimol; Fluridone; trans-Chlordane; trans-Nonachlor; 4,4'-DDE; Dieldrin; Endrin; Chlorobenzilate; Endosulfan II; 4,4'-DDD; Endrin Aldehyde; Endosulfan sulfate; 4,4'-DDT; Methoxychlor; cis-Permethrine; trans-Permethrin</p> <p>- Polychlorinated Biphenyls (PCBs) : 2,4,4'-Trichlorobiphenyl (PCB 28); 2,2',5,5'-Tetrachlorobiphenyl (PCB 52); 2,2',4,5,5'-Pentachlorobiphenyl (PCB 101); 2,3',4,4',5'-Pentachlorobiphenyl (PCB 118); 2,2',3,4,4',5'-Hexachlorobiphenyl (PCB 138); 2,2',4,4',5,5'-Hexachlorobiphenyl (PCB 153); 2,2',3,4,4',5,5'-Heptachlorobiphenyl (PCB 180)</p>	90 mg/L tot 200.000 mg/L	1,0 % to 4,0 %	BM001 comment (1)
	10 mg/L tot 10.000 mg/L	1,0 % to 4,0 %	
Product	Concentration range (at 20°C)	expanded uncertainty (*)	calibration procedure/method
<p>Organic standards in organic solvents – Multicomponents:</p> <p>-Volatiles: Dichlorodifluoromethane; Chloromethane; Vinyl Chloride; Bromomethane; Chloroethane; Trichlorofluoromethane; trans-1,2-Dichloroethene; Methylene Chloride; cis-1,2-Dichloroethene; 1,1-Dichloroethane; 1,1-Dichloroethene; 2,2-Dichloropropane; Bromochloromethane; Chloroform; 1,1,1-Trichloroethane; 1,2-Dichloroethane; cis-1,3-Dichloropropene; Benzene; Carbon Tetrachloride; 1,2-Dichloropropane; Trichloroethene; Dibromomethane; Bromodichloromethane; trans-1,3-Dichloropropene; 1,1-Dichloropropene; Toluene; 1,1,2-Trichloroethane; 1,3-Dichloropropane; Dibromochloromethane; 1,2-Dibromoethane; Tetrachloroethene; Chlorobenzene; 1,1,1,2-Tetrachloroethane; Ethylbenzene; m-Xylene; p-Xylene; Bromoform; Styrene; o-Xylene; 1,1,2,2-Tetrachloroethane; 1,2,3-Trichloropropane; Isopropylbenzene; Bromobenzene; n-Propylbenzene; 2-Chlorotoluene; 4-Chlorotoluene; 1,3,5-Trimethylbenzene; tert-Butylbenzene; 1,2,4-Trimethylbenzene; 1,3-Dichlorobenzene; sec-Butylbenzene; 1,4-Dichlorobenzene; p-Isopropyltoluene; 1,2-Dichlorobenzene; n-Butylbenzene; 1,2-Dibromo-3-Chloropropane; 1,2,4-Trichlorobenzene; Naphthalene; Hexachlorobutadiene; 1,2,3-Trichlorobenzene</p> <p>-Phenols: phenol; 2-chlorophenol; 2-methylphenol (o-cresol); m-Cresol; p-Cresol; 2-nitrophenol; 2,4-dimethylphenol; 2,4-dichlorophenol; 2,6-Dichlorophenol; 4-chloro-3-methylphenol; 2,4,5-Trichlorophenol; 2,4,6-trichlorophenol; 2,4-dinitrophenol; 4-nitrophenol; 2,3,5,6-Tetrachlorophenol; 2,3,4,5-Tetrachlorophenol; 2,3,4,6-Tetrachlorophenol; 2-methyl-4,6-dinitrophenol; pentachlorophenol; Dinoseb; Dinex</p>	1 mg/L tot 2.200 mg/L	1,0 % to 4,0 %	BM001 comment (1)

Product	Concentration range (at 20°C)	expanded uncertainty (*)	calibration procedure/method
<p>Organic standards in organic solvents – Multicomponents:</p> <p>-PAHs: Naphthalene; Acenaphthylene; Acenaphthene; Fluorene; Phenanthrene; Anthracene; Fluoranthene; Pyrene; Benz[a]anthracene; Chrysene; Benzo[b]fluoranthene; Benzo[k]fluoranthene; Benzo[a]pyrene; Indeno[1,2,3,c,d]pyrene; Dibenz[a,h]anthracene; Benzo[g,h,i]perylene</p> <p>-Pesticides: Etridiazole; Chlorneb; alfa-HCH; beta-HCH; Simazine; Atrazine; delta.HCH; Chlorothalonil; Lindane; Alachlor; Heptachlor; Aldrin; DCPA (Dacthal); Heptachlor epoxide; cis-Chlordane; Endosulfan I; Dichlorphos; EPTC; Mevinphos; Butylate; Vernolate; Pebulate; Tebuthiuron; Molinate; Propachlor; Cycloate; Ethoprophos; Chlorpropham; Trifluralin; Atraton; Prometon; Atrazine; Propazine; Propyzamide; Methyl Paraoxon; Turbaeil; Metribuzin; Alachlor; Simetryn; Ametryn; Prometryn; Terbutryn; Metolachlor; Chlorpyrifos; Bromacil; Triademefon; Cyanazine; Diphenamid; MGK 275 (Isomer 1); MGK 275 (Isomer 2); Stirifos (Tetrachlorvinphos); Butachlor; Propanamide; Tricyclazole; Norflurazon; Hexazinone; Fenarimol; Fluridone; trans-Chlordane; trans-Nonachlor; 4,4'-DDE; Dieldrin; Endrin; Chlorobenzilate; Endosulfan II; 4,4'-DDD; Endrin Aldehyde; Endosulfan sulfate; 4,4'-DDT; Methoxychlor; cis-Permethrine; trans-Permethrin</p> <p>- Polychlorinated Biphenyls (PCBs): 2,4,4'-Trichlorobiphenyl (PCB 28); 2,2',5,5'-Tetrachlorobiphenyl (PCB 52); 2,2',4,5,5'-Pentachlorobiphenyl (PCB 101); 2,3',4,4',5'-Pentachlorobiphenyl (PCB 118); 2,2',3,4,4',5'-Hexachlorobiphenyl (PCB 138); 2,2',4,4',5,5'-Hexachlorobiphenyl (PCB 153); 2,2',3,4,4',5,5'-Heptachlorobiphenyl (PCB 180)</p>	<p>1 mg/L tot 2.200 mg/L</p> <p>1 mg/L tot 11.000 mg/L</p>	<p>1,0 % to 4,0 %</p> <p>1,0 % to 4,0 %</p>	<p>BM001 comment (1)</p>
Product	Mass fraction range	expanded uncertainty (*)	calibration procedure/method
<p>Anorganic standards in aqueous solution – Monoelements:</p> <p>-Cations: Ag, Al, As, Au, B, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Dy, Er, Eu, Fe, Ga, Gd, Ge, Hf, Hg, Ho, In, Ir, K, La, Li, Lu, Mg, Mn, Mo, Na, Nb, Nd, Ni, Os, P, Pb, Pd, Pr, Pt, Rb, Re, Rh, Ru, S, Sb, Sc, Se, Si, Sm, Sn, Sr, Ta, Tb, Te, Th, Ti, Tl, Tm, U, V, W, Y, Yb, Zn, Zr</p>	<p>900 µg/g tot 11.000 µg/g</p>	<p>0,2 % to 2,0 %</p>	<p>BM006 comment (2)</p>
Product	Density range (at 20°C)	expanded uncertainty (*)	calibration procedure/method
<p>Aqueous solutions</p>	<p>0,8 to 3 g/L</p>	<p>0,02% to 0,2%</p>	<p>BM008 comment (2)</p>

Product	Molarity (at 20°C)	expanded uncertainty (*)	calibration procedure/method
Aqueous solutions (acid)	0,001 to 12 mol/L	0,4% to 2,0%	BM011 comment (2)
Aqueous solutions (base)	0,001 to 12 mol/L	0,4% to 2,0%	

(*) the smallest uncertainty of measurement the laboratory can provide to its customers, expressed as the expanded uncertainty having a coverage probability of approximately 95%

Comments:

- (1) Results and their measurement uncertainties are only valid on the volumetric/gravimetric value of the batch solution and not on the individual bottles (or ampules) produced from this batch solution.
- (2) Results and their measurement uncertainties are only valid on the analytical value of the batch solution and not on the individual bottles (or ampules) produced from this batch solution.