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CERTIFICATE OF ACCREDITATION

This is to attest that

AGQ CHILE S.A.

LOS INDUSTRIALES 697, HUECHURABA,
SANTIAGO DE CHILE, 8590829, REPUBLIC OF CHILE

Testing Laboratory TL-513

has met the requirements of AC89, *IAS Accreditation Criteria for Testing Laboratories*, and has demonstrated compliance with ISO/IEC Standard 17025:2017, *General requirements for the competence of testing and calibration laboratories*. This organization is accredited to provide the services specified in the scope of accreditation.

Expiry Date May 1, 2024

Effective Date September 26, 2023



A handwritten signature in black ink that reads "Raj Nathan".

President

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AGQ CHILE S.A.

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Accredited to ISO/IEC 17025:2017

Effective Date September 26, 2023

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
Food -Organic	Dry foods, Oilseeds, Cereals, Crustaceans, prepared food	Aflatoxin B1, Aflatoxin B2, Aflatoxin G1, Aflatoxin G2, Zearalenone, Ochratoxine A, Fumonisins B1, Fumonisins B2, Deoxynivalenol	PC-226 (Rev. 8) Determination of mycotoxins by LC/MS-MS
	Fish with high and low-fat content; Crustaceans	3-Amino-2-oxazolidinone (AOZ), 1-Aminohydantoin hydrochloride (AHD), 3-Amino-5-morpholinomethyl-2-oxazolid (AMOZ), Semicarbazide hydrochloride (SEM)	PC-227 (Rev. 9) Determination of nitrofuran metabolites residues by LC-MS / MS
		Flumequine, Oxolinic acid, Emamectin benzoate, Florfenicol, Diflubenzuron, Azametifos, Teflubenzuron, Hexaflumuron, Lufenuron, Cloranfenicol, Enrofloxacin, Ciprofloxacin, Sarafloxacin, Trimethoprim, Erythromycin	PC-228 (Rev. 19) Determination of Antibiotic Residues in Hydrobiological Products by LC-MS / MS Chromatography
		Oxytetracycline, Tetracycline, Chlortetracycline, 4-epi-Oxytetracycline, 4-epi-Tetracycline, 4-epi-Chlortetracycline	PC-339 (Rev. 14) Residues of Tetracyclines and Penicillin in Hydrobiological Products by LC-MS/MS
		Crystal Violet, Leuco Crystal Violet, Malachite Green, Leuco Green, Malachite, Bright Green	PC-340 (Rev. 10) Determination of colorants in Hydrobiological Products by LC/MS-MS
	Wine	Ochratoxin A	PC-299 (Rev. 5) Determination of Ochratoxin A residues by LC/MS-MS
		Natamycin	PC-300 (Rev. 5)

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FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
Food -Organic (cont'd.)	Wine (cont'd.)		Determination of Natamycin residues LC-MS/MS
		Histamine	PC-301 (Rev. 6) Determination of Histamine residues by LC/MS-MS
		Methanol	PC-358 (Rev. 4) Determination of methanol by GC-FID
	Meal from animal origin and Feedstuffs	Abamectin, Oxolinic Acid, Ciprofloxacin, Chloramphenicol, Diflubenzuron, Emamectin Benzoate, Enrofloxacin, Erythromycin A, Spiramycin, Florfenicol, Flumequine, Ivermectin, Sarafloxacin, Trimethoprim, Teflubenzuron, Tylosin, Lufenuron, Hexaflumuron, Amoxicillin, Chlortetracycline, Oxytetracycline, Tetracycline, Penicillin G and Doxycycline	PC-305 (Rev. 9) Determination of antibiotic and tetracycline residues by LC-MS-MS
		1-Aminohydantoin (AHD), 3-Amino-5-morpholinomethyl-2-oxazolidinone (AMOZ), 3-Amino-2-oxazolidinone (AOZ), Semicarbazide (SEM)	PC-319 (Rev. 6) Determination of nitrofurans metabolites residues by LC/MS-MS
		Crystal Violet, Leuco Crystal Violet, Malachite Green, Leuco Green Malachite, Bright Green	PC-266 (Rev. 17) Determination of colorants in meal by LC/MS-MS
	Meal from animal origin, Feedstuffs, Fish (with high and low-fat content) and Crustaceans	Sulfamethazine (Sulfadimidine), Sulfadimethoxine, Sulfaquinoxaline, Sulfamethoxazole, Sulfamethoxypyridazine, Sulfadoxine, Sulfadiazine, Sulfathiazole, Sulfamerazine, Sulfachloropyridazine	PC-341 (Rev. 7) Determination of sulfonamides residues by LC/MS-MS
		Decoquinate, Diclazuril, Halofuginone, Robenidine, Narasin, Nicarbazine, Lasalocid A, Maduramicin, Monensin, Salinomycin	PE-659 (Rev. 3) Determination of Coccidiostats by LC/MS-MS
	High water content (Fruits and vegetables); High	Dithiocarbamates	PC-368 (Rev.7) Determination of

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Food -Organic (cont'd.)	water content and acid (Fruits); Aromatic herbs and leaves (Vegetables); High content of starch and/or protein and low water content and fat (Cereals and vegetables); High in sugar and low in water (Dried fruits); High oil and low water content (Dry fruits and Oilseeds); High oil and half water content (Fruits); Wine; Natural juices with no added sugar	Dithiocarbamates (cont'd.)	Dithiocarbamates by GC-MS/MS.
	High water content (Fruits and vegetables); High water content and acid (Fruits); Aromatic herbs and leaves (Vegetables); High content of starch and/or protein and low water content and fat (Cereals and vegetables); High in sugar and low in water (Dried fruits); High oil and low water content (Dry fruits and Oilseeds); High oil and half water content (Fruits); Oils; Wine; Natural juices with no added sugar, Crustaceans	2,4-D, Azoxystrobin, Diphenylamine, Fenhexamide, Fludioxonil, Iprodione, Imazalil, Pyrimethanil, Prochloraz, Tebuconazole, Thiabendazole 2,4,6-Tricloroanisol, 2,4,6-Triclorofenol, 2,4-D, 2-Fenilfenol, Abamectina, Acefato, Acequinocyl, Acetocloro, Acetamiprid, Acibenzolar- S-metilo, Aclonifen, Acrinatrina, Alacloro, Aldicarb (Suma), Aldicarb, Aldicarb Sulfona, Aldicarb Sulfoxido, Aldrín, Alfa-HCH, Ametoctradin, Ametrina, Aminocarb, Antraquinona, Atrazina, Atrazina Desetil, Atrazina Desisopropil, Azaconazol, Azadiractina, Azametifos, Azimsulfurón, Azinfos Etil, Azinfos Metil, Azoxistrobina, BAC (Suma), BAC n-c08, BAC n-c10, BAC n-c12, BAC n-c14, BAC n-c16, BAC n-c18, Beflubutamida, Benalaxil, Bendiocarb, Benfluralina, Benomilo-Carbendazima, Bentazona, Bentazona Metil, Bentiavalicarb Isopropil, Beta-HCH, Bifenazato, Bifenilo, Bifenox, Bifentrina, Bioaletrina, Bitertanol,	PE-664 (Rev. 5) Determination of residues of post-harvest pesticides by chromatography LC/MS-MS PE-674 (Rev. 21) Determination of pesticide residues by GC/MS-MS and LC/MS-MS

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Food -Organic (cont'd.)	High water content (Fruits and vegetables); High water content and acid (Fruits); Aromatic herbs and leaves (Vegetables); High content of starch and/or protein and low water content and fat (Cereals and vegetables); High in sugar and low in water (Dried fruits); High oil and low water content (Dry fruits and Oilseeds); High oil and half water content (Fruits); Oils; Wine; Natural juices with no added sugar, Crustaceans (cont'd.)	Bixafen, Boscalida, Bromacilo, Bromociclen, Bromofos Etil, Bromofos Metil, Bromopropilato, Bromoxinil, Bromuconazol, BTS 44595, BTS 44596, Bupirimato, Buprofezin, Butacloro, Butoxicarboxim, Butoxicarboxim Sulfoxide, Butralina, Buturon, Cadusafos, Captafol, Captan (Suma), Captan, Carbaril, Carbetamida, Carbofenotion, Carbofuran, Carbofuran-3-Hidroxi, Carboxim, Carfentrazona Etil, Cianazina, Ciazofamida, Ciclanilida, Cicloato, Cicloxicidim, Cienopirafen, Ciflufenamida, Ciflumetofeno, Ciflutrín, Cihaloop Butil, Cihexatina+Azociclotin, Cimoxanilo, Cinidon Etil, Cipermetrina, Ciproconazol, Ciprodinil, Ciromazina, Cletodim, Cletodim Sulfona, Cletodim Sulfoxido, Clofentezina, Clomazona, Clorantraniliprole, Clorbenzilato + Clorpropilato, Clorbromuron, Clordano (Suma), Clordano Cis, Clordano Trans, Clorfenapir, Clorfenson, Clorfenvinfós, Clorfluazuron, Cloridazon (Suma), Cloridazon, Cloridazon Desfenil, Clormefos, Clorotalonil, Clorotion, Clorpirimifos, Clorpirimifos Metil, Clorprofam, Clorsulfuron, Clortal Dimetil, Clortiofos, Clortoluron, Clorxuron, Clotianidin, Clozolinato, Coumafos, Crimidina, Cyantraniliprole, Cyhalotrin-L, DDAC (Suma), DDAC n-c08, DDAC n-c10, DDAC n-c12, DDAC n-c14, DDD-pp + DDT-op, DEET, Delta-HCH, Deltametrina, Demeton S, Demeton-S Sulfóxido, Demeton-S-Metil, Demeton-S-Metil Sulfona, Desmedifam, Desmetrina, Diafenturon, Dialifos, Diazinón, Diclobenilo, Diclobutrazol, Diclofenton, Diclofluanida, Diclofop, Diclofop Metil, Diclofop Metil (Suma), Diclorán, Diclormid, Diclorprop, Diclorvos, Dicofol	PE-674 (Rev. 21) Determination of pesticide residues by GC/MS-MS and LC/MS-MS (cont'd)

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Food -Organic (cont'd.)	High water content (Fruits and vegetables); High water content and acid (Fruits); Aromatic herbs and leaves (Vegetables); High content of starch and/or protein and low water content and fat (Cereals and vegetables); High in sugar and low in water (Dried fruits); High oil and low water content (Dry fruits and Oilseeds); High oil and half water content (Fruits); Oils; Wine; Natural juices with no added sugar, Crustaceans (cont'd.)	(Suma), Dicofol o,p, Dicofol p,p', Dicrotofos, Dieldrin (Suma), Dieldrin, Dietofencarb, Difenilamina, Difenoconazol, Diflubenzuron, Diflufenican, Dimefox, Dimefuron, Dimetacloro, Dimetenamida-P, Dimetoato, Dimetomorf, Dimoxistrobin, Diniconazol, Dinobuton, Dinotefuram, Disulfuton (Suma), Disulfuton, Disulfuton Sulfona, Disulfuton Sulfoxido, Ditalimfos, Diuron, DMST, DNOC, Dodemorf, Dodina, Edifenphos, Emamectina, Endosulfan (Suma), Endosulfan Alfa, Endosulfan Beta, Endosulfan Sulfato, Endrin, EPN, Epoxiconazol, Epsilon-HCH, EPTC, Espinetoram, Espinosad, Spirodiclofeno, Espiromesifeno, Spirotetramat (Suma), Spirotetramat, Spirotetramat-Cis-Enol, Spirotetramat-Cis-Ketohidroxi, Spirotetramat-Enol-Glucoside, Spirotetramat-Mono-Hidroxy, Espiroxamina, Etaboxam, Etalfluralin, Ethirimol, Etiofencarb, Etiofencarb Sulfona, Etiofencarb Sulfóxido, Etion, Etiprol, Etufenprox, Etofumesato (Suma), Etofumesato , Etofumesato 2-ceto, Etoprofos, Etoxazol, Etoxiquina, Etridiazole, Etrimfos, Famoxadona, Fenamidona, Fenamifos (Suma), Fenamifos, Fenamifos Sulfona, Fenamifos Sulfóxido, Fenarimol, Fenazaquina, Fenbuconazol, Fenbutatín Óxido, Fenclofros (Suma), Fenclofros, Fenclofros Oxon, Fenhexamida, Fenitrotión, Fenmedifan, Fenobucarb, Fenoxicarb, Fenpiclonil, Fenpirazamina, Fenpiroximato, Fenpropatriin, Fenpropidin, Fenpropimorfo, Fenson, Fensulfotion, Fensulfotion Oxon, Fensulfotion Oxon Sulfona, Fensulfotion Sulfona, Fentina , Fention (Suma), Fention, Fention Oxon, Fention Oxon Sulfona, Fention Oxon Sulfoxido, Fention	PE-674 (Rev. 21) Determination of pesticide residues by GC/MS-MS and LC/MS-MS (cont'd)

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Food -Organic (cont'd.)	High water content (Fruits and vegetables); High water content and acid (Fruits); Aromatic herbs and leaves (Vegetables); High content of starch and/or protein and low water content and fat (Cereals and vegetables); High in sugar and low in water (Dried fruits); High oil and low water content (Dry fruits and Oilseeds); High oil and half water content (Fruits); Oils; Wine; Natural juices with no added sugar, Crustaceans (cont'd.)	Sulfona, Fention Sulfóxido, Fentoato, Fenuron, Fenvalerato + Esfenvalerato, Fipronil (Suma), Fipronil, Fipronil Sulfide, Fipronil Sulfona, Flamprop, Flazasulfuron, Flonicamid (Suma), Flonicamid, Florasulam, Fluacinam, Fluazifop-Metil, Fluazifop-P, Fluazifop-P-butil, Flubendiamida, Flucitrinato, Fludioxonilo, Flufenacet (Suma), Flufenacet, Flufenacet ESA, Flufenacet OA, Flufenoxuron, Flumetalina, Flumioxazina, Fluometuron, Fluopicolide, Fluopiram, Fluotrimazol, Fluoxastrobin, Flupiradifuron, Fluquinconazol, Fluroxipir, Fluroxipir Meptil, Flurtamona, Flusilazol, Flutolanil, Flutriafol, Fluvalinato Tau, Fluxapiroxad, Folpet (Suma), Folpet, Fonofos, Foramsulfuron, Forato (Suma), Forato, Forato Oxon, Forato Oxon Sulfona, Forato Oxon Sulfoxido, Forato Sulfona, Forato Sulfoxido, Forcolorfenuron, Formetanato, Formotion, Fosalón, Fosfamidon, Fosmet (Suma), Fosmet, Fosmet Oxon, Fostiazato, Foxim, Ftalamida (Folpet), Fuberidazol, Furalaxil, Halosulfuron Metil, Haloxifop-2-Ethoxyetyl, Haloxifop-Metil, Haloxyfop-R, Heptacloro (Suma), Heptacloro, Heptacloro Epóxido A, Heptacloro Epóxido B, Heptenofos, Hexacloro-1,3-butadieno, Hexaclorobenceno, Hexaconazol, Hexaflumuron, Hexazinona, Hexitiazox, Hidroxiquinoleina-8, Imazalil, Imidacloprid, Indaziflam, Indoxacarb, Iodofenfos, Iodosulfuron Metil, Ioxinil, Iprobenos, Iprodion, Iprovalicarb, Isazofos, Isocarbofos, Isofenfos, Isofenfos Metil, Isopyrazam, Isoprocarb, Isoprotiolano, Isoproturón, Isoxabén, Isoxation, Ivermectina, Kresoxim Metil, Lenacilo, Lindano, Linurón, Lufenuron, Malaoxon, Malation (Suma), Malation, Mandipropamid,	PE-674 (Rev. 21) Determination of pesticide residues by GC/MS-MS and LC/MS-MS (cont'd)

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FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
Food -Organic (cont'd.)	High water content (Fruits and vegetables); High water content and acid (Fruits); Aromatic herbs and leaves (Vegetables); High content of starch and/or protein and low water content and fat (Cereals and vegetables); High in sugar and low in water (Dried fruits); High oil and low water content (Dry fruits and Oilseeds); High oil and half water content (Fruits); Oils; Wine; Natural juices with no added sugar, Crustaceans (cont'd.)	Matrina, MCPA, Mecarbam, Mefenpir Dietil, Mepanipirim, Mepronilo, Meptildinocap, Mesosulfuron Metil, Metabenziazuron, Metacrifós, Metaflumizona, Metalaxil, Metamidofos, Metamitrona, Metazacloro, Metconazol, Metidatión, Metil Tiofanato, Metiocarb (Suma), Metiocarb, Metiocarb Sulfona, Metiocarb Sulfóxido, Metobromuron, Metolacloro, Metolcarb, Metomilo, Metoprotrina, Metoxicloro, Metoxifenoxida, Metoxuron, Metrafenona, Metribuzina, Metsulfuron Metil, Mevinfos, Miclobutanil, Milbemectina (Suma), Milbemicina A3, Milbemicina A4 , Mirex, Molinato, Monocrotofós, Monolinurón, Monuron, Napropamida, Neburon, Nicosulfuron, Nitrenpiram, Nitrofen, Nitrotal Isopropil, Norflurazon, Novalurón, Nuarimol, o,p-DDD, o,p-DDE, Ofurace, Ometoato, Orizalin, Oxadiargilo, Oxadiazón, Oxadixilo, Oxamilo, Oxasulfuron, Oxatiapiprolin, Oxicarboxina, Oxiclordan, Oxidemetón-metilo (Suma), Oxidemetón-metilo, Oxifluorfén, Oximatrina, p,p-DDE, p,p-DDT, Paclobutrazol, Paraoxon Etil, Paraoxon Metil, Paration Etil, Paration Metil, Paration Metil (Suma), Pencicurón, Penconazol, Pendimetalina, Pentacloroanilina, Pentacloroanisol, Pentaclorobenceno, Pentaclorobenzonitrilo, Pentiopirad, Permetrina, Picolinafen, Picoxistrobina, Pidyflumetofen, Pimetrocina, Pinoxaden, Piperonil Butoxido, Piracarbolid, Piraclostrobina, Piraflufen, Piraflufen-etilo, Piraflufen-etilo (Suma), Pirazofos, Piridabén, Piridafenton, Piridalil, Piridato, Pirifenox, Pirimetanil, Pirimicarb, Pirimicarb Desmetil, Pirimicarb	PE-674 (Rev. 21) Determination of pesticide residues by GC/MS-MS and LC/MS-MS (cont'd)

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FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
Food -Organic (cont'd.)	High water content (Fruits and vegetables); High water content and acid (Fruits); Aromatic herbs and leaves (Vegetables); High content of starch and/or protein and low water content and fat (Cereals and vegetables); High in sugar and low in water (Dried fruits); High oil and low water content (Dry fruits and Oilseeds); High oil and half water content (Fruits); Oils; Wine; Natural juices with no added sugar, Crustaceans (cont'd.)	Desmetil Formamida, Pirimifos Etil, Pirimifos Metil, Piriproxifén, Procimidona, Procloraz (Suma), Procloraz, Profam, Profenofós, Profluralin, Promecarb, Prometrina, Propaclor, Propaclor Ac Oxalamico, Propamocarb, Propanil, Propaquizafop, Propargita, Propazina, Propetamphos, Propiconazol, Propizamida, Propoxur, Proquinazid, Prosulfocarb, Prosulfuron, Protioconazol, Protiofos, Quinalfós, Quinclorac, Quinometionato, Quinoxifen, Quintoceno (Suma), Quintoceno, Quizalofop-Ethyl, Rimsulfuron, Rotenona, Saflufenacil, Sebutilazina, Setoxidim (Suma), Setoxidim, Siltiofam, Simazina, Sulcotrina, Sulfosulfuron, Sulfotep, Sulfoxaflor, Sulprofos, Tebuconazol, Tebufenocida, Tebufenpirad, Tecnaceno, Teflubenzurón, Teflutrina, Tepraloxidim, Terbacil, Terbufos, Terbufos Sulfona, Terbufos Sulfóxido, Terbumeton, Terbutilazina, Terbutilazina Desetyl, Terbutrin, Tetraclorvinfos, Tetaconazol, Tetradión, Tetrahidroftalamida (Captan), Tetrametrina, Tetrasul, TFNA, TFNG, Thiametoxam, Tiabendazol, Tiacloprid, Tidiazuron, Tifensulfuron Metil, Tiobencarb, Tiociclam, Tiodicarb, Tiofanox, Tiofanox Sulfona, Tiofanox Sulfoxido, Tiometon, Tolclofos Metil, Tolfenpirad, Tolilfluanida (Suma), Tolilfluanida, Transflutrin, Triadimefon, Triadimenol, Trialato, Triamifos, Triasulfuron, Triazofos, Triazoxida, Triciclavol, Triclopir, Triclorfon, Tricresil Fosfato, Tridemorfo, Trifloxystrobin, Triflumizol (Suma), Triflumizol, Triflumizol FM 6-1, Triflumuron, Trifluralina, Triforina, Triticonazol, Uniconazol, Vamidotion, Vinclozolina, Zoxamida	PE-674 (Rev. 21) Determination of pesticide residues by GC/MS-MS and LC/MS-MS (cont'd)

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		Perchlorate, Chlorate, Etephon, Fosetyl-Al (Sum of Fosetyl, Phosphonic Acid and their salts, expressed as Fosetyl), Phosphonic Acid, Glyphosate	PE-690 (Rev. 8) Determination of Polar Pesticides by LC/MS-MS
Food – Inorganic	Wine and Food	Arsenic, Calcium, Manganese, Cadmium, Copper, Chromium, Iron, Magnesium	PC-230 (Rev. 13) Determination of Heavy Metals using ICP
		Lithium, Beryllium, Boron, Aluminium, Titanium, Vanadium, Chromium, Manganese, Iron, Cobalt, Nickel, Copper, Arsenic, Selenium, Strontium, Molybdenum, Silver, Cadmium, Tin, Antimony, Barium, Mercury, Lead	PE-324 (Rev. 31) Determination of total elements in food by ICP-MS
	Salmon Muscle (Skin and Muscle) and Mollusks	Arsenic, Cadmium, Copper, Chrome, Tin, Lead, Mercury, Zinc, Lithium, Beryllium, Aluminum, Titanium, Manganese, Nickel, Molybdenum, Silver Antimony, Barium, Vanadium, Iron, Selenium	PC-360 (Rev. 5) Preparation and determination of heavy metals in Hydrobiological matrix
	Fish and Mollusks	Sampling of hydrobiological products	PICH-222 (Rev. 3) Sampling of Hydrobiological products. Based on: NCh43:1961, Selection of samples at random. Manual of Safety and Certification
	Fish	Fractionation of fish in situ	PICH-223 (Rev. 3) Fractionation of fish in terrain. Based on: NCh43:1961, Selection of samples at random. Manual of Safety and Certification
	Salmon	Sampling of Salmonids	PICH-224 (Rev. 4) Sampling of Salmonids. Based on: NCh43:1961, Selection of samples at random. Manual of Safety and Certifications

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Food – Inorganic (cont'd.)	Hydrobiological Products and Marine Biota	Arsenic (As ⁺³ , As ⁺⁵ , Monomethyl Arsenate, Dimethyl Arsenic)	PC-372 (Rev. 5) Chemical speciation of arsenic by HPLC-ICP-MS (anion exchange)
Food – Microbiology	Food for human consumption	Detection of Listeria Monocytogenes, Detection of Listeria sp.	ISO 11290-1:2017 (E) Microbiology of the food chain -- Horizontal method for the detection and enumeration of Listeria monocytogenes and of Listeria spp.-- Part 1: Detection method
		Salmonella detection	NCh2675:2002 Hydrobiological Products - Salmonella Detection
		Determination of total coliforms; Determination of fecal coliforms	NCh2635/1:2001 Hydrobiological Products, except live bivalve mollusks - Determination of Coliforms - Part 1: Determination of Coliforms and Fecal Coliforms - Most Probable Number Technique (MPN)
		Determination of aerobic mesophylls	NCh2659:2002 Hydrobiological products - Determination of mesophilic aerobic microorganisms - Plate count technique at 35 ° C
		Determination of total coliforms	NCh2635/2:2001 Hydrobiological Products, except live bivalve mollusks - Determination of Coliforms - Part 2: Plate Count Technique
		Determination of Escherichia coli	NCh2636:2001 Hydrobiological products, except live

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Food – Microbiology (cont'd.)	Food for human consumption (cont'd.)		bivalve mollusks - Determination of Escherichia coli - Most probable number technique (MPN)
		Determination of Enterobacteriaceae	NCh2676:2002 Hydrobiological products - Determination of Enterobacteriaceae without resuscitation - NMP technique and plate count technique
		Determination of Escherichia coli	ISO 16649-2:2001 Microbiology of food and animal feeding stuffs -- Horizontal method for the enumeration of beta-glucuronidase-positive Escherichia coli-- Part 2: Colony-count technique at 44 degrees C using 5-bromo-4-chloro-3-indolyl beta-D-glucuronide
		Determination of Mould; Yeast determination	NCh2734:2002 Hydrobiological products - Determination of mould and yeasts - Plate count technique
		Determination of Staphylococcus aureus	NCh2671:2002 Hydrobiological Products - Coagulase positive Staphylococcus aureus count - Baird-Parker agar plate count technique
		Determines with presumptive Bacillus cereus	NCh3116:2008 Microbiology of food for human and animal consumption - Horizontal method for the presumptive enumeration of

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Food – Microbiology (cont'd.)	Food for human consumption (cont'd.)		Bacillus cereus - Plate count technique at 30°C
	Surfaces, utensils and manipulators	Detection of Listeria Monocytogenes; Detection of Listeria sp	PC-303 (Rev.4) based on NCh3057.Of2007 ISO11290-1:2017 Listeria Detection on Surfaces
		Detection of total coliforms, fecal coliforms and Escherichia coli	PC-209 (Rev.7) Investigation of Coliforms, Fecal Coliforms and E Coli on Surfaces and Handlers
		Detection of total coliforms and E.coli	PC-211 (Rev.7) Coliform and E Coli Count on Surfaces
		Detection of Salmonella spp	PC-267 (Rev.4) based on NCh3057.Of2007 NCh2675.Of2002 Salmonella Detection in Handlers and Surface
		Staphylococcus aureus detection	PC-206 (Rev.8) based on NCh3057.Of2007 NCh2828.Of2003 Determination of Staphylococcus Aureus on Surfaces and Handlers
		Determination of aerobic mesophylls	PC-210 (Rev.9) based on NCh3057.Of2007 NCh2659.Of2002 Determination of Aerobic Mesophilic Microorganisms on Surfaces and Manipulators
		Determination of Enterobacteriaceae	PC-268 (Rev.2) Enterobacteriaceae on Surfaces and Manipulators
		Determination of Mould; Determination of Yeast	PC-252 (Rev.2) Mould and Yeasts on Surfaces and Handlers

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FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
Food – Microbiology (cont'd.)	Environment (Atmosphere)	Determination of aerobic mesophylls; Determination of Mould (Mould); Determination of yeasts (yeast)	SM dairy products 17°Ed, chapter 13 13.023
Vegetation material – Inorganic	Leaves	Chloride, Nitrate, Ammonium, Alkalinity	PE-336 (Rev. 20) Ammonium, Ammonia nitrogen, Chloride, TON, Alkalinity and Urea using the automatic method of UV-Visible spectrophotometry
		Boron, Calcium, Copper, Phosphorus, Iron, Magnesium, Manganese, Molybdenum, Potassium, Sodium, Zinc, Sulfur	PEC-009 (Rev. 27) Determination of Ca, Mg, Na, K, Fe, Mn, Cu, Zn, Mo, S, P and B by ICP-OES
		Nitrogen	PEC-034 (Rev. 22) Determination of nitrogen
Food - Safety	Reusable feeding nipples and drinking accessories; Reusable baby bottles and drinking glasses; Single-use feeding bottles, feeding nipples, feeding bags, drinking accessories, which do not contain fluid when purchased, and reusable food grade pots.	Determination of BPA	PC-1041 (Rev.5) BPA by LC / MS-MS Chromatography
	Materials and articles in contact with food products	Global migration	UNE-EN-1186-1- Part 1 & 3 Materials and articles in contact with foodstuffs. Plastics
Safety	Toys and School supplies	Total Lead	ASTM D3335-85A Low Concentrations of Lead in Paint
		Phthalates: Di(2-ethylhexyl) ftalato (DEHP), Dibutylftalato (DBP), Butylbenzilftalato (BBP), Diisononilftalato (DINP), Diisodecylftalato (DIDP), Di-n-octylftalato (DNOP)	EN 14372:2004 Child use and care articles

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FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
Safety (cont'd.)	Toys and School supplies (cont'd.)	Ignitability Test	NCh 3251/2:2020 Determination of ignitability
		Toluene	PC-331 (Rev. 6) Determination of toluene
		Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Antimony, Selenium	PC-332 (Rev. 7) Metals in toys and school supplies by ICP-OES/MS
		N-nitrosodibenzylamine, N-nitrosodibutylamine, N-nitrosodiethanolamine, N-nitrosodiethylamine, N-nitrosodiisobutylamine, N-nitrosodiisononylamine, N-nitrosodiisopropylamine, N-nitrosodimethylamine, N-nitrosodipropylamine, N-nitrosomorpholine, N-nitrosopiperidine	PC-355 (Rev. 2) Nitrosamines in PVC by LC-MS/MS based on EN 71-12:2013 N-Nitrosamines and N-Nitrosatable Substances
	Toys	Mechanical and physical properties	EN 71-1 Safety of toys - Part 1: Mechanical and physical properties
		Flammability	EN 71-2 Safety of toys - Part 2: Flammability
		Aluminum, Antimony, Arsenic, Barium, Boron, Cadmium, Chromium (III), Chromium (VI), Cobalt, Copper, Lead, Manganese, Mercury, Nickel, Selenium, Strontium, Tin, Organic Tin, Zinc	EN 71-3 Migration of certain elements
	Objects destined to come into contact with food in final product and in migration	Styrene, Acrylonitrile, Vinyl Chloride	PC-1039 (Rev. 2) Free Monomers in Materials and plastic objects destined to come into contact with food in final product and in migration
	Materials and Articles in Contact with Food in Materials and articles in contact	Antimonio, Arsénico, Bario, Boro, Cobalto, Cobre, Estaño, Flúor, Hierro, Litio, Manganoso, Plata, Plomo, Zinc	PC-1040 (Rev.2) Determination of Metals in Materials and Articles in Contact with Food in Materials and articles in contact

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FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
Safety (cont'd.)	with food (plastics, metals, cellulose)		with food (plastics, metals, cellulose)
	Reusable poly bags	Mechanical and physical properties	UNE 53942 Plastics. Reusable plastics bags of polyethylene (PE) for the transport of products distributed by retail. Technical and environmental requirements and test methods
Environmental, Geochem, Mineral and Soil – Inorganic	Minerals and Soil	Oxidation pH	PE-991 (Rev. 2) Determination of oxidation pH
		Sample preparation	PE-4017 (Rev. 9) Preparation of mineral sample
		Neutralization Potential (NP)	PE-4402 (Rev. 2) Determination of neutralization potential (NP)
		Neutralization Potential Modification LAWRENCE & WANG	PE-4403 (Rev. 3) Neutralization potential modification LAWRENCE & WANG
		Fizz Rating Test	PE-4409 (Rev. 2) Fizz Rating
		Net Acid Generation (NAG)	PE-4413 (Rev. 5) Net acid generation (NAG)
		Paste pH	PE 4416 (Rev. 4) Paste pH
		Oxidation – Reduction Potential (ORP)	SMEWW 2580-A 24th edition Oxidation – Reduction Potential (ORP)
		Metals (Finished by PE-2107/PE-303): Al, Sb, As, S, Ba, Be, B, Cd, Ca, Co, Cu, Cr, Sn, Sr, P, Fe, Li, Mg, Mn, Hg, Mo, Ni, Ag, Pb, K, Se, Na, Si, Ti, Ti, V, Zn, Bi, Sc, Ga, Te, Th, U, V, W	PE-4412 (Rev. 2) Leaching at pH 4.2 of inorganic compounds PE-2107 (Rev.7) Total, Dissolved and Soluble Elements in Acids for Waters through ICP-OES
		Anions (Finished by PE-2090): Chlorides, Fluorides, Nitrates, Nitrites, Sulphates	PE-303 (Rev. 27)

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FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
Environmental, Geochem, Mineral and Soil – Inorganic (cont'd.)	Geochem samples, Minerals and Soil (cont'd.)	Total Dissolved Solids (Finished by SMEWW 2540 C) Total nitrogen (Finished by IT-689) pH (Finished by SMEWW 4500 H+B)	Total and Dissolved Elements in Waters by ICP-MS PE-2090 (Rev. 16) Anions in Waters by Ion Chromatography IT-610 (Rev. 8) Determination of Alkalinity SMEWW 2540 C (24th edition) Total Dissolved Solids Dried at 180°C PC-366 (Rev. 2) WAD Cyanide IT-689 (Rev.2) Total Nitrogen SMEWW 4500 H+B 24th edition
		Metals (Finished by PE-2107/PE-303): Al, Sb, As, S, Ba, Be, B, Cd, Ca, Co, Cu, Cr, Sn, Sr, P, Fe, Li, Mg, Mn, Hg, Mo, Ni, Ag, Pb, K, Se, Na, Si, Tl, Ti, V, Zn, Bi, Sc, Ga, Te, Th, U, V, W	PE-4413 (Rev. 5) Net acid generation (NAG) PE-2107 (Rev.7) Total, Dissolved and Soluble Elements in Acids for Waters through ICP-OES PE-303 (Rev. 27)
		Anions (Finished by PE-2090): Chlorides, Fluorides, Nitrates, Nitrites, Sulphates	Total and Dissolved Elements in Waters by ICP-MS
		Total Dissolved Solids (Finished by SMEWW 2540 C)	PE-2090 (Rev. 16)
		Total nitrogen (Finished by IT-689)	Anions in Waters by Ion Chromatography IT-610 (Rev. 8) Determination of Alkalinity SMEWW 2540 C (24th edition) Total Dissolved Solids Dried at 180°C PC-366 (Rev. 2) WAD Cyanide IT-689 (Rev.2) Total Nitrogen SMEWW 4500 H+B 24th edition
		pH (Finished by SMEWW 4500 H+B)	

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Environmental, Geochem, Mineral and Soil – Inorganic (cont'd.)	Geochem samples, Minerals and Soil (cont'd.)	Metals (Finished by PE-2107/PE-303): Al, Sb, As, S, Ba, Be, B, Cd, Ca, Co, Cu, Cr, Sn, Sr, P, Fe, Li, Mg, Mn, Hg, Mo, Ni, Ag, Pb, K, Se, Na, Si, Tl, Ti, V, Zn, Bi, Sc, Ga, Te, Th, U, V, W Anions (Finished by PE-2090): Chlorides, Fluorides, Nitrates, Nitrites, Sulphates Total alkalinity and bicarbonate (CaCO ₃) (Finished by IT-610) Total Dissolved Solids (Finished by SMEWW 2540 C) WAD cyanide (Finished by PC-366) Total nitrogen (Finished by IT-689) pH (Finished by SMEWW 4500 H+B)	PE-4414 (Rev. 4) Shake Flask Test, Solubility Testing in Waters and Wastes by Inductively Coupled Plasma - Atomic Spectrometry (ICP-AES) PE-2107 (Rev.7) Total, Dissolved and Soluble Elements in Acids for Waters through ICP-OES PE-303 (Rev. 27) Total and Dissolved Elements in Waters by ICP-MS PE-2090 (Rev. 16) Anions in Waters by Ion Chromatography IT-610 (Rev. 8) Determination of Alkalinity SMEWW 2540 C (24th edition) Total Dissolved Solids Dried at 180°C PC-366 (Rev. 2) WAD Cyanide IT-689 (Rev.2) Total Nitrogen SMEWW 4500 H+B 24th edition
Environmental – Inorganic	Surface water, Ground water, Sea water and Saline water	Surface active agents (Foaming power) Total Nitrogen Chlorophyll-A Color	ISO 696:1975 Surface active agents -- Measurement of foaming power -- Modified Ross-Miles method IT-689 (Rev. 2) Total Nitrogen PC-367 (Rev. 4) Chlorophyll A in Waters based on SMEWW 10150 B (24th edition) SMEWW 2120 B (24th edition)

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FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
Environmental – Inorganic (cont'd.)	Surface water, Ground water, Sea water and Saline water (cont'd.)		Visual Comparison Method
		Total Solids	SMEWW 2540 B (24th edition) Total Solids Dried at 103-105°C
		Total dissolved solids	SMEWW 2540 C (24th edition) Total Dissolved Solids Dried at 180°C
		Total Suspended Solids	SMEWW 2540 D (24th edition) Total Suspended Solids
		Settleable Solids	SMEWW 2540 F (24th edition) Settleable Solids
	Drinking water, Surface water, Ground water, Sea water, Saline water, Wastewater and Process water, Catchment sources	Oils and Greases	SMEWW 5520 B (24th edition) Liquid-Liquid Partition Gravimetric Method
		Total Alkalinity, Carbonates, Bicarbonates	IT-610 (Rev. 8) Determination of Alkalinity based on SMEWW 2320 B Alkalinity Titration Method (24th edition)
		Total, Free and Wad Cyanide	PC-394 (Rev. 3) Cyanides by FIA
		Dissolved: Al, Sb, As, S, Ba, Be, B, Cd, Ca, Co, Cu, Cr, Sn, Sr, P, Fe, Li, Mg, Mn, Mo, Ni, Ag, Pb, K, Se, Na, Si, Ti, Ti, V, Zn Total: Al, Sb, As, S, Ba, Be, B, Cd, Ca, Co, Cu, Cr, Sn, Sr, P, Fe, Li, Mg, Mn, Mo, Ni, Ag, Pb, K, Se, Na, Si, Ti, Ti, V, Zn	PE-2107 (Rev.7) Total, Dissolved and Soluble Elements in Acids for Waters through ICP-OES based on EPA Method 200.7 - Determination of Trace Elements in Waters and Wastes by Inductively Coupled Plasma - Atomic Spectrometry (ICP- AES)
		Turbidity	SMEWW 2130 B (24th edition) Turbidity by Nephelometry method

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Environmental – Inorganic (cont'd.)	Drinking water, Surface water, Ground water, Sea water, Saline water, Wastewater and Process water, Catchment sources (cont'd.)	Electric conductivity	SMEWW 2510 B (24th edition) Conductivity. Laboratory Method
		Hexavalent chromium	SMEWW 3500 Cr-B (24th edition) Chromium by Colorimetry
		Total Cyanide	SMEWW 4500-CN E (24th edition) Colorimetric Method Treatment of Samples: 4500-CN-C Total Cyanide After Distillation. CN- Cyanide. 24th Edition, 2017. SM- APHA/AWWA/WEF
		Total Cyanide	SMEWW 4500-CN-F (24th edition) Cyanide-Ion Selective Electrode Method Treatment of Samples: 4500-CN-C Total Cyanide After Distillation. CN- Cyanide. 24th Edition 2017. SM - APHA/AWWA/WEF
		pH	SMEWW 4500 H+B (24th edition) Electrometric Method
		Ammoniacal Nitrogen	SMEWW 4500 NH3-D (24th edition) Ammonia by Selective Electrode
		Nitrite (expressed as NO ₂ and N-NO ₂), Nitrite, Nitrogen-nitrite	SMEWW 4500 NO2-B (24th edition) Ultraviolet Spectrophotometric Screening Method
		Nitrate, Nitrogen-nitrate	SMEWW 4500 NO3-D (24th edition) Nitrate Electrode Method
		Total sulfur	SMEWW 4500 S-2 G (24th edition)

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Environmental – Inorganic (cont'd.)	Drinking water, Surface water, Ground water, Sea water, Saline water, Wastewater and Process water, Catchment sources (cont'd.)		Ion Selective Electrode Method
		Sulphates	SMEWW 4500 SO4-D (24th edition) Sulfate in Water by Gravimetry
		Phenolic compounds	SMEWW 5530 C (24th edition) Chloroform Extraction Method Treatment of samples: 5530 B. Cleanup Procedure. 23 rd Edition 2017. SM - APHA/AWWA/WEF
		Anionic Surfactants	SMEWW 5540 C (24th edition) Anionic Surfactants as MBAS
	Drinking water, Catchment sources (Surface water, Ground water, and other for human consumption)	Turbidity	ME-03-2007 Manual SISS, Determination of Turbidity by Nephelometric Method
		Fluoride	ME-06-2007 Manual SISS, Determination of Fluoride by Specific Electrode Method
		Nitrogen-Nitrate	ME-16-2007 Manual SISS, Determination of Nitrate by Specific Electrode Method
		Nitrogen-Nitrite	ME-17-2007 Manual SISS, Determination of Nitrite by UV-VIS molecular absorption spectrophotometry method
		True Color	ME-24-2007 Manual SISS, True Color Determination by Pt- Co Method
		Ammoniacal Nitrogen	ME-27-2007 Manual SISS, Determination of Ammonia by Specific Electrode Method

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FIELDS OF TESTING	MATERIAL/MATRIX	DETERMINANT(S)/ANALYTE(S)	METHOD REFERENCE
Environmental – Inorganic (cont'd.)	Drinking water, Catchment sources (Surface water, Ground water, and other for human consumption) (cont'd.)	Chloride	ME-28-2007 Manual SISS, Determination of Chloride by Argentometric Method
		pH	ME-29-2007 Manual SISS, Determination of pH by Electrometric Method
		Total Solids dissolved	ME-31-2007 Manual SISS, Determination of Solids dissolved by Gravimetric Method
		Phenolic compounds	ME-32-2007 Manual SISS, Determination of phenolic compounds by UV-VIS molecular absorption spectrophotometry method
		Determination of Monochloramine by DPD Titrimetric Method with FAS.	ME-23-2007 Manual SISS, Titrimetric method of DPD with FAS
		Determination of residual free Chlorine by D.P.D. Ferrous Titrimetric (F.A.S.) - Method used to verify field equipment.	ME-33-2007 Manual SISS, Titrimetric method of DPD with FAS
		Odor	ME-25-2013 Manual SISS, Odor Determination by Organoleptic Method
		Taste	ME-26-2013 Manual SISS, Taste Determination by Organoleptic Method
	Drinking water, Surface water and Ground water	Dissolved: Al, Sb, As, Ba, Be, Bi, B, Cd, Ca, Co, Cu, Cr, Sc, Sn, Sr, P, Ga, Fe, Li, Mg, Mn, Hg, Mo, Ni, Ag, Pb, K, Se, Na, Tl, Te, Ti, Th, U, V, W, Zn Total: Al, Sb, As, Ba, Be, Bi, B, Cd, Ca, Co, Cu, Cr, Sc, Sn, Sr, P, Ga, Fe, Li, Mg, Mn, Hg, Mo, Ni, Ag, Pb, K, Se, Na, Tl, Te, Ti, Th, U, V, W, Zn	PE-303 (Rev. 27) Total and Dissolved Elements in Waters by ICP-MS Spectroscopy based on EPA Method 200.8 - Determination of Trace Elements in Waters and Wastes by Inductively Coupled Plasma - Mass

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Environmental – Inorganic (cont'd.)	Drinking water, Surface water and Ground water (cont'd.)		Spectrometry (ICP-MS)
		Langelier Index (Saturation Index)	SMEWW 2330B (24th edition) Langelier Index (Saturation Index)
		Hardness	SMEWW 2340B (24th edition) Hardness by Calculation
	Drinking water, Surface water, Ground water, and Process water	Sodium Adsorption Ratio (RAS) and Sodium Percentage	NCh 1333:1978 Mod. 1987 Sodium Adsorption Ratio (RAS) and Sodium Percentage
		pH	NCh 2313/1:2021 Wastewater - Methods of analysis - Part 1: Determination of pH
		Suspended solids	NCh 2313/3:1995 Wastewater - Methods of analysis - Part 3: Determination of total suspended solids dried at 103 °C - 105 °C
		Sedimentable solids	NCh 2313/4:1995 Wastewater - Methods of analysis - Part 4: Determination of settleable solids - Volumetric method
		Biochemical Oxygen Demand	NCh 2313/5:2005 Wastewater - Methods of analysis - Part 5: Determination of Biochemical Oxygen Demand (BOD5)
		Cyanide	NCh 2313/14:1997 Wastewater - Methods of analysis - Part 14: Determination of total cyanide
		Total phosphorus	NCh 2313/15:2009 Wastewater - Methods of analysis - Part 15: Determination of total phosphorus

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Environmental – Inorganic (cont'd.)	Wastewater (cont'd.)	Ammoniacal Nitrogen	NCh 2313/16:2010 Wastewater - Methods of analysis - Part 16: Determination of ammonia nitrogen - Potentiometric method
		Sulfide	NCh 2313/17:1997 Wastewater - Methods of analysis - Part 17: Determination of total sulfur
		Dissolved sulfates	NCh 2313/18:1997 Wastewater - Methods of analysis - Part 18: Determination of dissolved sulphate by waste calcination
		Phenol Index	NCh 2313/19:2001 Wastewater - Methods of analysis - Part 19: Determination of the phenol index - Spectrometric method of 4-aminoantipyrine after distillation
		Foaming power	NCh 2313/21:2010 Wastewater - Methods of analysis - Part 21: Determination of the foaming power
		Chemical demand for oxygen	NCh 2313/24:1997 Wastewater - Methods of analysis - Part 24: Determination of chemical oxygen demand (COD)
		Aluminum, Arsenic, Boron, Cadmium, Zinc, Copper, Chrome, Tin, Iron, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Lead, Selenium	NCh 2313/25:1997 Wastewater - Methods of analysis - Part 25: Determination of metals by plasma emission spectroscopy - Inductively coupled plasma method (I.C.P.)
		Nitrogen Kjeldahl	NCh 2313/28:2009

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Environmental – Inorganic (cont'd.)	Wastewater (cont'd.)		Wastewater - Methods of analysis - Part 28: Determination of nitrogen Kjeldahl - Potentiometric method with previous digestion
		Chlorides	NCh 2313/32:1999 Wastewater - Methods of analysis - Part 32: Chloride determination - Mohr Argentometric method
		Fluorides	NCh 2313/33:1999 Wastewater - Methods of analysis - Part 33: Determination of fluoride - Potentiometric method after distillation
		Sample Collection of Wastewater	PICH-212 (Rev. 6) Wastewater Sample Collection based on NCh 411/10:2005 and NCh 411/3:2014
	Wastewater and process water	Oils and Greases	NCH 2313/6:2015 Wastewater - Methods of analysis - Part 6: Determination of oils and greases
		Total Hydrocarbons, Fixed Hydrocarbons, Volatile Hydrocarbons	NCh 2313/7:2021 Wastewater - Test methods - Part 7: Determination of total hydrocarbons
	Drinking water, Surface water, Ground water, Wastewater and Process water	Free Cyanide	PC-365 (Rev. 2) Free Cyanide based on SMEWW 4500-CN J Colorimetric Method (24th edition)
		WAD Cyanide	PC-366 (Rev. 2) WAD Cyanide based on SMEWW 4500-CN I. Weak Acid Dissociable Cyanide (24th edition)

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Environmental – Inorganic (cont'd.)		Chlorides, Fluorides, Phosphates, Nitrates (as NO ₃ and N-NO ₃), Nitrites (as NO ₂ and N-NO ₂), Sulfates, Bromides, Chlorite, Chlorate	PE-2090 (Rev. 16) Anions in Waters by Ion Chromatography based on EPA Method 300.1
	Drinking water, Surface water, Ground water, Sea water, Saline water, Wastewater, Process water, Soils, Lake Sediment, Marine Sediment, Aquatic Sediment and Marine Biota	Arsenic (As ⁺³ , As ⁺⁵ , Monomethyl Arsenate, Dimethyl Arsenic)	PC-372 (Rev. 5) Chemical speciation of arsenic by HPLC-ICP-MS (anion exchange)
	Wastewater, Process water, Sea water and Saline water	Dissolved: Al, Sb, As, Ba, Be, Bi, B, Cd, Co, Cu, Cr, Sc, Sn, Sr, P, Ga, Fe, Li, Mn, Hg, Mo, Ni, Ag, Pb, Se, Tl, Te, Ti, Th, U, V, W, Zn Total: Al, Sb, As, Ba, Be, Bi, B, Cd, Co, Cu, Cr, Sc, Sn, Sr, P, Ga, Fe, Li, Mn, Hg, Mo, Ni, Ag, Pb, Se, Tl, Te, Ti, Th, U, V, W, Zn	PE-303 (Rev. 27) Total and Dissolved Elements in Waters by ICP-MS Spectroscopy based on EPA Method 200.8 - Determination of Trace Elements in Waters and Wastes by Inductively Coupled Plasma - Mass Spectrometry (ICP-MS)
	Soils, Sludge, Lake Sediment, Marine Sediment and Aquatic Sediment	Sb, As, Be, Bi, Cd, Co, Cr, Sn, Li, Hg, Mo, Ni, Ag, Pb, Se, Tl, Te, V	PE-325 (Rev. 20) Determination of Metals in soil and sludge based on EPA Method 200.8 - Determination of Trace Elements in Waters and Wastes by Inductively Coupled Plasma - Mass Spectrometry (ICP-MS) PE-150 (Rev. 19) Digestion of samples by digester block. Based on EPA 3050B "Acid Digest of Sediments, Sludges, and Soils"; SM 3030E. Standard Methods for the Examination of

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Environmental – Inorganic (cont'd.)	Soils, Sludge, Lake Sediment, Marine Sediment and Aquatic Sediment (cont'd.)	Sb, As, Be, Bi, Cd, Co, Cr, Sn, Li, Hg, Mo, Ni, Ag, Pb, Se, Tl, Te, V (cont'd.)	Water and Wastewater 24th edition. Nitric acid digestion
		Al, S, Ba, B, Ca, Cu, Sr, P, Fe, Mg, Mn, K, Na, Si, Ti, Zn	PE-951 (Rev. 12) Determination of Metals in soil and sludge by ICP based on EPA Method 200.7 - Determination of Trace Elements in Waters and Wastes by Inductively Coupled Plasma - Atomic Spectrometry (ICP-AES) PE-150 (Rev. 19) Digestion of samples by digester block. Based on EPA 3050B "Acid Digest of Sediments, Sludges, and Soils"; SM 3030E. Standard Methods for the Examination of Water and Wastewater 24th edition. Nitric acid digestion
		Moisture, Total solids	PEC-022 (Rev. 15) % Moisture, Dry Matter and Total Solids
		Total organic matter	PEC-012 (Rev.14) Total Organic Matter
		Fixed solids; Volatile solids	Method 3.1 of the Protocol of Analysis Methods for Soils and Sludges.
	Irrigation water and soil solutions	Alkalinity, Nitrates, Ammonium, Chlorides	PE-336 (Rev. 20) Ammonium, Ammonia nitrogen, Chloride, TON, Alkalinity and Urea using the automatic method of UV-Visible spectrophotometry
		Aluminum, Boron, Calcium, Copper, Magnesium, Manganese, Iron,	PEC-009 (Rev. 27) Determination of Al, B,

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Environmental – Inorganic (cont'd.)		Phosphate, Potassium, Sodium, Sulphate, Zinc	Ca, Cu, Fe, K, Mg, Mn, Mo, P, Na, S, Si, Zn by inductively coupled plasma optical emission spectroscopy
	Irrigation water and soil solutions, Soils; Sludge; Lake Sediment; Marine Sediment; Aquatic Sediment	pH	PEC-001 (Rev. 26) Determination of pH
		Electrical Conductivity	PEC-002 (Rev. 21) Determination of Electrical Conductivity
	Groundwater	Sample Collection of Groundwater, Water table measurement	PICH-210 (Rev. 8) Groundwater Sample Collection based on NCh 411/11:1998 and NCh411/3:2014
	Drinking water, Surface water, Sea water and Saline water	Sample Collection of Drinking water, Surface water, Sea water and Saline water	PICH-211 (Rev. 8) Drinking Water, Catchment Sources and Raw Water Sample Collection based on NCh 409/2:2004, NCh 411/3:2014 and SISS, Manual
	Drinking water	Odor	PICH-213 (Rev. 2) Odor determination in situ based on NCh409/1:2005, NCh410:1996. SMEWW 2170 (24th edition)
		Taste	PICH-214 (Rev. 2) Taste determination in situ Based on NCh409/1:2005, NCh410:1996. SMEWW 2170 (24th edition)
	Soils	Sampling of soils parameters	PICH-302 (Rev. 3) Sampling of soils based on NCh 3400:2016
	Lake Sediment, Marine Sediment and Aquatic Sediment	Sampling of Lake Sediment, Marine Sediment, Aquatic Sediment and Sludge parameters	PICH-303 (Rev. 3) Sampling of Sediments and Sludge

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FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
Environmental – Inorganic (cont'd.)	Drinking Water, Surface water, Ground water, Sea water and Saline water		based on ISO 5667-12:2017
		Odor	SMEWW 2150 B (24th edition) Threshold Odor Test
		DBO5	SMEWW 5210 B (24th edition) Biochemical Oxygen Demand 5-Day Bod Test
	Drinking water, marine water, wastewater, surface water, groundwater	COD	SMEWW 5220 D (24th edition) Chemical Oxygen Demand Closed Reflux Colorimetric Method
		Total solids	SMEWW 2540 B (24th edition) Total Solids Dried at 103-105 °C
		Fixed solids, Volatile solids	SMEWW 2540 E (24th edition) Fixed and Volatile Solids Ignited at 550°C
	Sea water and Saline water	Ammonium	PC-404 based on SMEWW 4500-NH3-F (24th edition) Phenate Method
		Nitrate (expressed as NO ₃ and N-NO ₃)	SMEWW 4500 NO₃-E (24th edition) Cadmium Reduction Method
	Soils, Sludges, marine sediments, lake sediments, aquatic Sediment, minerals	Sieve Mesh Particle Retention Size(s) – Granulometry 0,053 mm; Granulometry 0,063 mm; Granulometry 0,075 mm; Granulometry 0,106 mm; Granulometry 0,125 mm; Granulometry 0,150 mm; Granulometry 0,212 mm; Granulometry 0,250 mm; Granulometry 0,425 mm; Granulometry 0,500 mm; Granulometry 0,850 mm; Granulometry 1,00 mm; Granulometry 1,18 mm;	PE-4039 (Rev.6) Granulometric analysis

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Environmental – Inorganic (cont'd.)		Granulometry 2,00 mm; Granulometry 4,00 mm; Granulometry 4,75 mm; Granulometry 6,30 mm; Granulometry 8,00 mm; Granulometry 9,50 mm; Granulometry 19,00 mm; Granulometry 63 mm; Granulometry % bottom	
Environmental – Organic	Drinking water, Surface water, Ground water, Sea water, Saline water, Waste water and Process water	Pesticides: Aldrín (SP), Alfa-HCH (α -BHC), Ametrina, Atrazina, Atraton, Azinfos Metil, Beta-HCH, Clordano Cis, Clordano Trans, Chlorobenzilate, Delta-HCH, Diazinon, Dieldrin (SP), Diallate, Demeton S, Disulfoton Endosulfan I, Endosulfan II, Endosulfan Sulfato, Endrin, Endrin Aldehido, Endrin Cetona, Etion, Heptacloro (SP), Heptacloro Epóxido (SP), Hexaclorobenceno, Isodrin, Lindano, Malation (SP), Metoxiclor, p,p-DDD, p,p-DDE, p,p-DDT, Paration Etil, Paration Metil (SP), Piridaben, Prometrina, Prometros, Propazina, Simazina, Simetrina, Terbutilazina, Terbutrin, Trietazina, Trifluralin, Vinclozolina (SP) 1,2-Dibromo-3-chloropropane, PAH's: Acenafreno, Acenaftileno, Benzo (a) antraceno, Benzo (a) pireno, Benzo (b) fluoranteno, Benzo (e) pireno, Benzo (g,h,i) perileno, Benzo (k) fluoranteno, Dibenzo (a,h) antraceno, Indeno (1,2,3-c,d) pireno, Pireno, Criseno, Fenantreno, Fluoranteno, Fluoreno, Naftaleno, Antraceno PCB's: PCB nº 101, PCB nº 118, PCB nº 138, PCB nº 153, PCB nº 180, PCB nº 28, PCB nº 52	PC-204 (Rev. 15) Determination of pesticide residues, Polycyclic Aromatic Hydrocarbons and polychlorinated biphenyls using GC-MS-MS based on EPA Method 8270 D method
		Cloruro de Vinilo, 1,1-Dicloroeteno, Diclorometano, 1,2-trans-Dicloroeteno, 1,1-Dicloroetano, 1,2-cis-Dicloroeteno, 2,2-Dicloropropano, Cloroformo, 1,1,1-Tricloroetano, 1,1-Dicloropropeno, Tetracloruro de Carbono, 1,2-Dicloroetano, Benceno,	PC-241 (Rev. 16) Determination of VOCs in Waters based on EPA 5021 A

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Environmental – Organic (cont'd.)	Drinking water, Surface water, Ground water, Sea water, Saline water, Wastewater and Process water (cont'd.)	Tricloroeteno (1,1,2), 1,2-Dicloropropano, Dibromometano, Bromodiclorometano, 1,3-cis-Dicloropropeno, Tolueno, 1,3-trans-Dicloropropeno, 1,1,2-Tricloroetano, Tetracloroeteno, 1,3-Dicloropropano, Clorodibromometano, Clorobenceno, 1,1,1,2-Tetracloroetano, Etilbenceno, m,p-Xileno, o-Xileno, Estireno, Bromoformo, Isopropilbenceno, 1,1,2,2-Tetracloroetano, 1,2,3-Tricloropropano, Bromobenceno, n-Propilbenceno, 2 – Clorotolueno, 1,3,5-Trimetilbenceno, 4-Clorotolueno, tert-Butilbenceno, 1,2,4-Trimetilbenceno, sec-Butilbenceno , 1,3-Diclorobenceno, p-Isopropiltolueno, 1,4-Diclorobenceno, 1,2-Diclorobenceno, 1,2-Dibromo -3 – Cloropropano, 1,2,4-Triclorobenceno, Hexaclorobutadieno, Naftaleno, 1,2,3-Triclorobenceno Sum of trihalomethane, Sum of xylenes	
	Soils, Sludge, Lake Sediment, Marine Sediment and Aquatic Sediment	Pesticides: Alacloro, Aldrin (SP), Alfa-HCH (α -BHC), Ametrina, Atrazina, Azinfos Metil, Benalaxil (SP), Beta-HCH (β -BHC), Captan, Cipermetrina, Ciproconazol, Clodinafop Propargil ester, Clordano Cis, Clordano Trans, Clordecona, Clofenvinfos, Clorotalonil, Clorpirifos , Clortal-Dimetil, Delta-HCH, Diazinon, Dieldrin (SP), Diflufenican, Dimetoato (SP), Endosulfan I, Endosulfan II, Endosulfan Sulfato, Endrin, Endrin Aldehido, Endrin Cetona, EPTC, Etion, Etoprofós, Fenamifos (SP), Flusilazol, Folpet, Heptacloro (SP), Heptacloro Epóxido (SP), Hexaclorobenceno, Isodrin, Lindano, Malation (SP), Metalaxil (SP), Metidation, Metolacloro, Metoxicloro, Metribuzina, Miclobutanil, Mirex, Molinato, o,p-DDT, Oxi fluorfen, p,p-	PC-205 (Rev. 8) Determination of pesticide residue, Polycyclic Aromatic Hydrocarbons and polychlorinated biphenyls using GC-MS-MS based on EPA Method 8270 D

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Environmental – Organic (cont'd.)	Soils, Sludge, Lake Sediment, Marine Sediment and Aquatic Sediment (cont'd.)	DDD, p,p-DDE, P,p-DDT, Paration Etil, Paration Metil (SP), Pendimetalina, Pentachlorobenceno, Piridaben, Pirimetanil, Prometrina, Propazina, Propizamida, Simazina, Simetrina, Terbutilazina, Terbutrin, Tetradifon, Triclorfon, Trietazina, Trifluoralin, Vinclozolina (SP) PAH's: Acenafreno, Acenaftileno, Antraceno, Benzo (a) antraceno, Benzo (a) pireno, Benzo (e) pireno, Benzo (b) fluoranteno, Benzo (g,h,i) perileno Benzo (k) fluoranteno, Criseno, Dibenzo (a,h) antraceno, Fluoranteno, Fluoreno, Indeno (1,2,3 – c,d) pireno, Fenantreno, Pireno, Naftaleno PCBs: PCB nº 101, PCB nº 118, PCB nº 138, PCB nº 153, PCB nº 180, PCB nº 28, PCB nº 52	PC-205 (Rev. 8) Determination of pesticide residue, Polycyclic Aromatic Hydrocarbons and polychlorinated biphenyls using GC-MS-MS based on EPA Method 8270 D (cont'd.)
	Drinking water, Surface water, Ground water, Sea water, Saline water, Waste water, Process water, Soils; Lake Sediment; Marine Sediment; Aquatic Sediment	Volatile Hydrocarbons C6-C10; Fixed Hydrocarbons >C10-C28; Fixed Hydrocarbons >C28-C40; Fixed Hydrocarbons >C10-C40; Total Petroleum Hydrocarbons (TPHs) C6-C40	PE-649 (Rev. 12) Determination of Hydrocarbon in a range C6 - C40, water and soils by Gas Chromatography – FID based on EPA Method 8015 D and Draft TNRCC Method 1006
Environmental – Microbiology	Drinking water, catchment sources	Escherichia coli detection	ME-01-2007 Manual SISS (Superintendency of Sanitary Services Manual of test methods for drinking water), Multiple Tube Method
		Escherichia coli detection	ME-02-2007 Manual SISS (Superintendency of Sanitary Services Manual of test methods for drinking water), Membrane filtration method

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Environmental – Microbiology (cont'd.)	Drinking water, catchment sources (cont'd.)	Determination of total Coliforms	NCh1620/1:2020 Water - Determination of total coliform bacteria and Escherichia coli - Part 1: Multiple tube method (MPN)
		Determination of total Coliforms	NCh1620/2:2020 Water - Determination of total coliform bacteria and Escherichia coli - Part 2: Membrane filtration method
		Determination of intestinal Enterococci	ISO 7899-2:2000 Water quality -- Detection and enumeration of intestinal enterococci--Part 2: Membrane filtration method
		Determination of fecal coliforms	SMEWW 9222 G (24th Edition) Other Escherichia coli Procedures
	Wastewater	Determination of fecal coliforms	NCh2313/22.Of95
	Surface water, groundwater, seawater	Determination of fecal coliforms	SMEWW 9222 D (24th Edition) Thermotolerant (Fecal) Coliform Procedure
	Drinking water, surface water, groundwater, seawater, wastewater	Determination of fecal coliforms	SMEWW 9221 E-1 (24th Edition) Thermotolerant (Fecal) Coliform Procedure
		Determination of total Coliforms	SMEWW 9221 B (24th Edition) Standard Total Coliform Fermentation Technique
		Determination of Escherichia coli	SMEWW 9221 F (24th Edition) Escherichia coli Procedures Using Fluorogenic Substrate

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Environmental – Microbiology (cont'd.)	Drinking water, surface water, groundwater, seawater	Determination of total Coliforms	SMEWW 9222 B (24th Edition) Standard Total Coliform Membrane Filter Procedure using Endo Media
	Drinking water, catchment sources, surface water, groundwater, seawater	Determination of Escherichia coli	SMEWW 9222 H (24th Edition) Partitioning E. coli from MF Total Coliform using EC-MUG Broth