

LOT 1
Reactivi chimici și materiale referință chimie generală

Nr. crt.	Laborator	Denumire	Specificatii	Ambalaj	UM	C.J.	BN	SJ	MM	SM	Total
						Cantitate	Cantitate	Cantitate	Cantitate	Cantitate	Cantitate
1		4-amirino antipirina	GR for analysis, puritate ≥99%; temp. topire 107-109°C, pierderi la uscare(90°) ≤ 0.5 %, sensitivity test (phenol) conforms	100	g	1	1				2
2		4-amirino-benzosulfonamida	continut ≥ 99%, Cl ≤ 0.01%, SO ₄ ≤ 0.02%	100	g				1		1
3		acetona	pur. min 99,5 %, evaporare residue max 0,001%	1000	ml				1		1
4		acetat de sodiu	anhidru	250	g					1	1
5		Acetonă pentru cromatografia de gaze	puritate min 99,8 %, reziduu la evaporare max 3 mg/l, lindan (GC-ECD) max 3 pp/ml	2500	ml	1			2		3
6		Acetonitril HPLC, gradient grade	puritate min 99,9 %, reziduu la evaporare max 2 mg/l, aciditate max 0,0002 meq/g, alcalinitate max 0,0002 meq/g, filtrat prin membrana cu diametru porilor de max 0,2 μm	2500	ml				27		27
7		Acid acetic glacial d=1,05 g/ml	GR for analysis, continut ≥ 99,8%, d = 1.05 g/cm ³ , Fe ≤ 0.05%	1000	ml				1	1	2
8		Acid (L(+)) ascorbic	continut 99,7-100,5%, cristale albe, Fe ≤ 2 ppm, Cl ≤ 50 ppm, SO ₄ ≤ 20 ppm	250	g				1	1	2
9		Acid azotic 65% Suprapur	Cr max. 0.020 ppm, Cu max. 0.010 ppm; Pb max. 0.010 ppm, Cd max. 0.010 ppm	2500	ml	3			1	1	5
10		Acid azotic 80% ultrapur	Cr max. 50 ppt; Cu max. 20 ppt; Pb max.20 ppt; Cd max. 20 ppt	1000	ml	1					1
11		Acid azotic .p.a.	for analysis, ≥65%	1000	ml				1		1
12		Acid boric	Continut: 99,5-100,5%; Cl <0,0003%; PO ₄ < 0,0005%; SO ₄ < 0,0005%; metale grele (Pb) ≤ 0,0005%, Ca ≤ 0,002%, Fe ≤ 0,0001%, Pb ≤ 0,001%	500	g				1		1
13		Acid clorhidric 0,1 N	Titripur® Reag. Ph Eur, Reag. USP, soluție volumetrică	1000	ml				1		1
14		Acid clorhidric 1 N	Titrisol, pentru analiza, spec. density 1.02 g/ml; pH value <1,0(H ₂ O, 20°C); volumetric solution in accordance with Ph Eur, USP; certified value traceable to NIST	1000	ml				1		1
15		Acid clorhidric 34-37% max 0,1 ppb	continut: 34-37%; Hg <0,1 ppb	1000	ml				1		1
16		Acid clorhidric 37%, d=1,19 g/l		2500	ml					2	2
17		Acid clorhidric 32%	GR for analysis, continut: 32-37%; clor liber<0,5ppm; sulfati <1ppm; NH ₄ <1ppm; Ca <0,2ppm; Na <0,2ppm; Ni <0,02ppm; Pb <0,01ppm; Hg<0,01ppm; reziduu la calcinare (n SO ₄) <5ppm	2500	ml	2			1		3
18		Acid fosforic conc.	GR for analysis ISO, continut: >85%; Mn <0,5ppm; NO ₃ <3 ppm	1000	ml		1		1	1	3
19		Acid glutamic	for biochemistry, ≥99%, cristaline powder white	250	g				1		1
20		Acid succinic	pentru analiza, puritate min 99,5%	250	g				1		1
21		Acid sulfuric concentrat	GR for analysis ISO, continut: 95-97%; densitate 1.84 g/cm ³ (20 °C), NO ₃ <0,2ppm; PO ₄ <0,5ppm; reziduu la calcinare <3ppm	2500	ml	3	2		2	3	10

56	EDTA (sareza disodica a acidului etilendiaminotetraacetic dihidrat)	GR for analysis ACS, ISO, Reag. Ph Eur, puritate ≥99% by titration, Fe ≤ 5 ppm	250	g	2				4		6
57	Fosfat de amoniu, dihidrogeno-, modifier de matrice	modifier pentru AAS, c= 100 ± 2 g/l NH4H2PO4 in H2O analysis, continut: >99%	50	ml					1		1
58	Fosfat dipotasic	di-Potassium hydrogen phosphate trihydrate GR for analysis, continut: >99%	250	g					1		1
59	Fosfat dlicid de amoniu	99.99 Suprapur	50	g					1		1
60	Fosfat disodic dihidrat	for analysis, continut: >99%	500	g					1		2
61	Fosfat monopotasie	Potassium phosphate monobasic, min. 99%; N total max. 0.02%; Cloruri max. 0.002%; SO4 max. 0.01%; Metale grele (Pb) max. 0.02%; As max. 0.0002%; Fe max. 0.003%	250	g			1	1	1		4
62	Glicerina	glicerol p.a., min 99.5%, SO4 max. 0.001% continut: ≥ 99.7%; Cl ≤ 0.003%, SO4 ≤ 0.0025%, (Pb) ≤ 0.001%, Fe ≤ 0.0001%, Pb ≤ 0.0001%, NH4 ≤ 0.002%, alti aminoacizi ≤ 0.1%	1000	ml			1				1
63	Glicina		100	g					1		1
64	Glucosa	D-(+)-Glucose anhydrous for biochemistry Reag. Ph Eur	250	g					1	1	2
65	hartia indicator de pH, cutii 0.5-13	rolls, pH 0.5-13 pH-box	cutie						1		1
66	Hexacianoferat (II) de potasiu	GR for analysis, ACS, Reag. Ph Eur, puritate ≥ 99.0 %, materii insolubile ≤ 0.005 %	250	g					1		1
67	hexadecane	pur > 99%	250	ml					1		1
68	Hexan, n-, pa	min 98%, purity Σ hexane isomers + methylcyclopentane (GC) min 98.5%	2500	ml						4	4
69	n-Hexan pentru cromatografia de gaze	puritate min 96 %, reziduu la evaporare max 0,0001%, for GC residue analysis	2500	ml	30				20		50
70	Hidrogen-ftalat de potasiu	continut ≥ 99.5 %; pierdere la uscare (105 OC) ≤ 0.2 %; Cu ≤ 0.0002 %	250	g			1		1		2
71	Hidroxid de potasiu	perle, pentru analiza, continut ≥ 85%	1000	g			1		1		2
72	Hidroxid de sodiu, p.a.	perle, continut ≥ 99.0%, Na2CO3 ≤ 1.0%, Cl ≤ 0.0005%, PO4 ≤ 0.0005, SiO2 ≤ 0.001%, SO4 ≤ 0.0005%, N ≤ 0.0003%, (Pb) ≤ 0.0005%, Al ≤ 0.0005%, As ≤ 0.0001%, Ca ≤ 0.0005%, Cu ≤ 0.0002%, Fe ≤ 0.0005%, K ≤ 0.05%, Mg ≤ 0.0005%, Ni ≤ 0.00025, Pb ≤ 0.0005%, Zn ≤ 0.001%	1000	g	4				3	3	10
73	Iodat de potasiu	for analysis, assay (iodometric) 99.7%-100.4%	100	g					1		1
74	Iodura de potasiu	for analysis, continut: >99.5%, Cl <0.01%	500g	g					1		1
75	Kit pentru analiza consumului chimic de oxigen	Test kit Spectroquant® COD, domeniu de masurare 5- 80 mg/l	25 buc	set					1		1
76	Kit pentru analiza consumului chimic de oxigen	Test kit Spectroquant® COD, domeniu de masurare 50- 500 mg/l	25 buc	set					1		1
77	Kit pentru analiza sulfurilor	Test kit Spectroquant® Sulfura, domeniu de masurare 0.020 - 1.50 mg/l S2- ≥ 99.8%	220 buc	set					1		1
78	Melanol pentru cromatografie		2500	ml					4		4
79	Molibdat de amoniu heptahidrat	continut: 99.3 - 101.8, Cl ≤ 0.002%, PO4 ≤ 0.0005%, SO4 ≤ 0.02%, (Pb) ≤ 0.001%, K ≤ 0.005%, Mg ≤ 0.005%, Na ≤ 0.005%, pentru analiza fosfatilor	1000	g					1		1

80	N-(1-naftil) etilen diamină diclorhidrat	≥ 99.0%, p. a. assay (dry substance) ≥ 99.0%	25	g		1		1		2
81	Nitrozo-pentacianoferrat de sodiu	continut 99.0 - 102.0%, cloruri ≤ 0.02%, hexacianoferați (II) ≤ 0.02, hexacianoferați (III) ≤ 0.01%, sulfati ≤ 0.01%, pentru determinarea amoniului	100	g				1		1
82	Peroxodisulfat de potasiu	continut ≥ 99.0%, Cl ≤ 0.001%, metale grele (Pb) ≤ 0.003%, Fe ≤ 0.001%, Mn ≤ 0.0001%	250	g				1		1
83	Peroxodisulfat de potasiu fara N	continut ≥ 99.0%, N ≤ 0.001%, Cl ≤ 0.001%, metale grele (Pb) ≤ 0.001%, Fe ≤ 0.0005%, Mn ≤ 0.0001%	250	g				1	1	2
84	Piridina	puritate: >99.5%; Cl ≤ 0.0005%, SO4 ≤ 0.0005%	1000	ml				1	1	2
85	Salcielat de sodiu	continut ≥ 99.5%, Cl ≤ 0.002%, SO4 ≤ 0.01%, Pb ≤ 0.001%, Fe ≤ 0.0015%, pentru determinare amoniu si azotati	1000	g				1	1	2
86	Solutie standard amoniu 1000 mg/l NH4+	continut: NH4Cl in H2O, conc. NH4: 990-1010 mg/l	500	ml		1		1		2
87	solutie standard Arsen	pt. AAS, dizolvat in HNO3 0.5 mol/l, 1000 mg/l	100	ml				1		1
88	Solutie standard azotati 1000 mg/l NO3-	continut: NaNO3 in H2O, conc. NO3: 990-1010 mg/l	500	ml		1				1
89	Solutie standard azotiti 1000 mg/l NO2-	continut: NaNO2 in H2O, conc. NO2: 990-1010 mg/l	500	ml		1				1
90	solutie standard cadmiu	concentratie 1000 mg/l, pentru AAS, traceabile to NIST-SRM	100	ml				1		1
91	Solutie standard calciu	Calcium standard solution Traceable to SRM from NIST Ca(NO3)2 in HNO3 0.5 mol/l, 1000 mg/l Ca	100	ml				1		1
92	Solutie standard cianuri 1000 mg/l CN-	continut: K2Zn(CN)4 in H2O, conc. CN: 990-1010 mg/l	500	ml		1				1
93	Solutie standard cloruri 1000 mg/l Cl-	continut: NaCl in H2O, conc. Cl: 990-1010 mg/l	500	ml		1		1		2
94	solutie standard Crom	concentratie 1000 mg/l, pentru AAS, traceabile to NIST-SRM	100	ml				1		1
95	solutie standard Cupru	concentratie 1000 mg/l, pentru AAS, traceabile to NIST-SRM	100	ml				1		1
96	Solutie standard fosfati 1000 mg/l PO43-	continut: KH2PO4 in H2O, conc. PO4: 990-1010 mg/l	500	ml		1		1		2
97	solutie standard Fier	concentratie 1000 mg/l, pentru AAS, traceabile to NIST-SRM	100	ml				1		1
98	solutie standard magneziu	concentratie 1000 mg/l, pentru AAS, traceabile to NIST-SRM	100	ml					1	1
99	solutie standard mangan	concentratie 1000 mg/l, pentru AAS, traceabile to NIST-SRM	100	ml				1		1
100	solutie standard nichel	concentratie 990-1010 mg/l, +/- 2 mg/l, traceabile to NIST-SRM	100	ml				1		1
101	solutie standard plumb	concentratie 1000 mg/l, pentru AAS, traceabile to NIST-SRM	100	ml				1		1
102	solutie standard potasiu	concentratie 1000 mg/l, pentru AAS, traceabile to NIST-SRM	100	ml				1		1
103	solutie standard sodiu	concentratie 1000 mg/l, pentru AAS, traceabile to NIST-SRM	100	ml				1		1
104	solutie standard TOC	analytical standard, 1000 mg/L ± 10 mg/L	250	ml		1				1
105	solutie standard zinc	concentratie 1000 mg/l, pentru AAS, traceabile to NIST-SRM	100	ml				1		1

106	Soluție standard de conductivitate HACH 0,147 mS/cm	147 $\mu\text{S/cm} \pm 5 \mu\text{S/cm}$ la 25 $^{\circ}\text{C}$, sub forma de KCl ($c=0,0001 \text{ mol/l}$), traseabilă NIST	250	ml					1	1	1
107	Soluție standard de conductivitate HACH 1,41 mS/cm	1413 $\mu\text{S/cm} \pm 12 \mu\text{S/cm}$ la 25 $^{\circ}\text{C}$, sub forma de KCl ($c=0,01 \text{ mol/l}$), traseabilă NIST	250	ml					1	1	1
108	Tampon pudra pentru floruri Hach	Pilcuri cu pulbere de ajustor de tărie tonică pentru fluorură, Fluoride Adjustment Buffer Powder Pillsows (Sodium chloride, Butanedioic acid, disodium salt, Succinic acid)	100 buc	cutie	1						1
109	Soluție tampon pH 10	Buffer solution, (boric acid/potassium chloride/sodium hydroxide), traceable to SRM from NIST and PTB, pH 10,00 (25 $^{\circ}\text{C}$), Certipur	500	ml					1		1
110	Soluție tampon pH 4	Buffer solution, (potassium hydrogen phthalate), traceable to SRM from NIST and PTB, pH 4.01 (25 $^{\circ}\text{C}$), Certipur	500	ml					1		1
111	Soluție tampon pH 7	Buffer solution, (potassium dihydrogen phosphate/di-sodium hydrogen phosphate), traceable to SRM from NIST and PTB, pH 7.00 (25 $^{\circ}\text{C}$), Certipur	500	ml					1		1
112	Soluție pentru păstrarea electrozilor HI70300L	soluție pentru păstrarea electrozilor Hanna Instruments	500	ml					1		1
113	Soluții electroliți 3M KCl, saturat cu AgCl, pH WTW 100 ml	electrolyte sol. 3M KCl, saturated AgCl, WTW, 100 ml	100	ml					1		1
114	Soluție de umplere, Referință, 2,44 M KCl, 59 mL	soluție de umplere electrod pH HACH, de concentrație 2,44 M KCl	59	ml					1		1
115	Soluție pH WTW tehnic 10, 250 ml	buffer solution pH WTW technical TPL 10, 250 ml; pentru WTW Inolab 730/740	250	ml					1		1
116	Soluție pH WTW tehnic 4, 250 ml	buffer solution pH WTW technical TPL 4, 250 ml; pentru WTW Inolab 730/740	250	ml					1		1
117	Soluție pH WTW tehnic 7, 250 ml	buffer solution pH WTW technical TPL 7, 250 ml; pentru WTW Inolab 730/740	250	ml					1		1
118	Soluție pH HACH tehnic 10	pH 10,01 \pm 0,02 la 25 $^{\circ}\text{C}$	500	ml				1			1
119	Soluție pH HACH tehnic 4	pH 4,01 la 25 $^{\circ}\text{C}$	500	ml				1			1
120	Soluție pH HACH tehnic 7	pH 7,00 \pm 0,02 la 25 $^{\circ}\text{C}$	500	ml				1			1
12	Sulfat de argint	for analysis, assay (argentometric) min. 98,5%	50	g							1
122	Sulfat de cupru pentahidrat p.a.	GR for analysis ACS, ISO, Reag. Ph Eur, assay iodometric 99,0 - 100,5 %	500	g				1			3
123	sulfat de fier II și amoniu	for analysis, Assay (manganometric) 99 - 101,5%	500	g					1		1
124	sulfat de magneziu	min 99,5%, pH value (5% water) 5,0 - 8,0	1000	g					1		1
125	Sulfat de mangan		1000	g						1	1
126	Sulfat de mangan monohidrat	for analysis, assay (complexometric) 98 - 101,0%	250	g					1		1
127	Sulfat de mercur	for analysis, assay (complexometric) \geq 98 %	250	g				1			3
128	sulfat de sodiu	for analysis, Assay (alkalimetric) \geq 99 %	1000	g					1		1
129	Sulfat de sodiu anhidru 99,99%		50	g						1	1
130	Sulfat de sodiu anhidru	min 98,0%, GR for analysis, particle size 0,25 - 2 mm, ACS, ISO, ph: 5,2 - 8,0	1000	g				3			7
131	Sulfat de sodiu	Gr for analysis, anhidru, assay (iodometric): 97,0-100,5%	500	g					1		1

132	Sulfura de sodiu nanohidrat	ACS reagent; 98.0%; crystalline; colorless or slightly yellow; NH4+: ≤0.005%; SO32- and SO32-: ≤0.1%	100	g					1	1
133	Tartrat de sodiu si potasiu	GR for analysis ACS, ISO, Reag. Ph Eur, assay (alkalimetric) 99.0 - 102.0 %	1000	g				1		1
134	Tartrat de stibiu si potasiu	for analysis, assay 99.0 - 103.0%	250	g				1		1
135	Tiosulfat de sodiu solutie pentru 1000 ml, c(Na2S2O3)=0,1 mol/l (0,1N)	Titrisol, pentru analiza, ρ: 1,22 g/cm3 (20°C), solutie pentru 1000 ml, c(Na2S2O3)=0,1 mol/l (0,1N)	fiola	buc				1	1	2
136	ulei de imersie	Imersion oil for microscopy ne=1.519	50	ml				1		1
137	Uree	continut: min 99,5%	500	g					1	1
138	Nutrienti pentru CBO5, 6 L, HACH	pernute de solutie tampon nutrient pentru pregatirea a 6 litri apa de dilutie	50 buc	cutie			1	2		3
139	Nutrienti pentru CBO5, 3 L, HACH	pernute de solutie tampon nutrient pentru pregatirea a 3 litri apa de dilutie	50 buc	cutie				2		2

Sef laborator
Claudia Nagy

LOT 2
 Materiale referința Cromatografie
 Anul 2022

Nr. crt.	Denumire produs	Specificații	CAS	Ambalaj	Cantitatea necesară	Observații
1	1,2,3 - Trichlorobenzene	certified neat	87-61-6	1 g	1	
2	1,3,5 - Trichlorobenzene	certified neat	108-70-3	0,25 g	1	
3	Pentachlorobenzene	certified neat	608-93-5	0,50 g	1	
4	Hexachlorobenzene	certified neat	118-74-1	0,25 g	1	
5	alpha-HCH	certified neat	319-84-6	0,10 g	1	
6	beta-HCH	certified neat	319-85-7	0,10 g	1	
7	delta-HCH	certified neat	319-86-8	50 mg	1	
8	Alachlor	certified neat	15972-60-8	0,25 g	1	
9	beta-Endosulfan	certified neat	33213-65-9	0,10 g	1	
10	2,4' - DDT	certified neat	789-02-6	50 mg	1	
11	Heptachlor-exo-epoxide (cis-, isomer B)	certified neat	1024-57-3	10 mg	1	
12	Aldrin	certified neat	309-00-2	0,25 g	1	
13	Isodrin	certified neat	465-73-6	0,10 g	1	
14	Endrin	certified neat	72-20-8	0,10 g	1	

Nr. crt.	Denumire produs	Specificații	CAS	Ambalaj	Cantitatea necesară	Observații
15	Dieldrin	certified neat	60-57-1	50 mg	1	
16	Chlorinated Pesticide Mix 1	1000 ng/μl in methyl tert-butyl ether	-	1 ml	1	Aldrin, alpha-HCH, beta-HCH, gamma-HCH, delta-HCH, 4,4'-DDD, 4,4'-DDE, 4,4'-DDT, Dieldrin, alpha-Endosulfan, beta-Endosulfan, Endosulfan sulfate, Endrin, Endrin aldehyde, Heptachlor, Heptachlor epoxide (isomer B), Methoxychlor
17	PCB-Mix 3	10 ng/μl in cyclohexane	-	10 ml	1	PCB 28, PCB 52, PCB 101, PCB 118, PCB 138, PCB 153, PCB 180
18	Atrazine	certified neat	1912-24-9	0,25 g	1	
19	Trifluralin	certified neat	1582-09-8	0,25 g	1	
20	Dichlorvos	certified neat	62-73-7	0,25 g	1	
21	1,1,1,2-Tetrachloroethane	certified neat	630-20-6	1 g	1	
22	Hexachloro-1,3-butadiene	certified neat	87-68-3	0,25 g	1	
23	Mixture of Mineral Oils (A+B) (Diesel Fuel / Lubricating Oil) 1:1	certified neat	-	1 ml	1	
24	n-Decane	certified neat	124-18-5	1 ml	1	
25	Atrazine	10 ng/μl in acetonitrile	1912-24-9	10 ml	1	
26	Simazine	10 ng/μl in acetonitrile	122-34-9	10 ml	1	
27	Diuron	10 ng/μl in acetonitrile	330-54-1	10 ml	1	
28	Isoproturon	10 ng/μl in acetonitrile	34123-59-6	10 ml	1	
29	PAH-Mix 64	2000 ng/μl in dichloromethane:benzene (1:1)	-	1 ml	1	

Întocmit,
chim. Roxana Rus


LOT 3
 Materiale de referință pentru analize metalelor

Nr. Crt	Denumire	Specificatii	AMBALAJ	UM	Cantitate
1	solutie multielement pentru ICP-MS la comanda, cu conținut de 10 mg/l Li, Be, B, Al, Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, As, Se, Mo, Cd, Sn, Sb, Te, Ba, Tl, Pb, U	10 mg/l Li, Be, B, Al, Ti, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, As, Se, Mo, Cd, Sn, Sb, Te, Ba, Tl, Pb, U, in matrice de HNO3 3-5% cu urme de HF; cu certificat de analiza	125	g-ml	1
2	solutie multielement pentru ICP-MS la comanda, cu conținut de 1000 mg/l Na, K, 30 mg/l Al, Mn, Fe, 10 mg/l Zn	1000 mg/l Na, K, 30 mg/l Al, Mn, Fe, 10 mg/l Zn, pentru ICP-MS, in matrice de HNO3 5%; cu certificat de analiza	125	g-ml	1
3	solutie multielement pentru ICP-MS la comanda, cu conținut de 30 mg/l Al, Mn, Fe, 10 mg/l Zn	30 mg/l Al, Mn, Fe, 10 mg/l Zn, pentru ICP-MS, in matrice de HNO3 5%; cu certificat de analiza	125	g-ml	1
4	solutie tuning pentru ICP-MS Agilent 1ppb	solutie tuning trasabil la NIST SRM, cu continut de Ce, Co, Li, Mg, Ti, Y, de 1 ppb, in matrice de HNO3 2%, cu certificat de analiza; cod Agilent 5185-5959	1000	g-ml	3

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