

ICP-Standards



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ICP Multielement Standard nach Kundenwunsch

Definieren Sie die Elementkombination speziell nach Ihren Erfordernissen!
Wir unterbreiten Ihnen gerne ein unverbindliches Angebot.

Formular

Standard in wässriger/saurer Lösung 100ml 250ml 500ml

Metallorganischer Standard in Öl 100g 200g

Sondermatrix: _____

Element	Konzentration in µg/ml (mg/l)	metallorg. Standards in µg/g
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Absender:

Name/Vorname _____

Firma _____

Straße, Nr. _____

PLZ, Ort _____

Tel _____

Fax _____

E-Mail _____

Schicken Sie bitte das ausgefüllte Formular einfach per **Fax** an **08122-10397**



Berghamer Str. 2, D-85435 Erding
www.spetec.de



Einzelelement Standards in wässriger / saurer Lösung

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Element		Menge	Konzentration 10 µg/ml		Konzentration 1.000 µg/ml		Konzentration 10.000 µg/ml	
			Best-Nr.	Preis EUR	Best-Nr.	Preis EUR	Best-Nr.	Preis EUR
Aluminium	Al, HCl	100ml			39-6000	44,00	39-6001	78,00
		500ml			39-6002	94,00	39-6003	174,00
	Al(NO ₃) ₃ , HNO ₃	100ml			39-6004	44,00	39-6005	79,00
		500ml			39-6006	94,00	39-6007	176,00
Antimon	Sb, HCl	100ml			39-6008	44,00	39-6009	79,00
		500ml			39-6010	94,00	39-6011	176,00
	Sb, H ₂ O/Tartaric Acid/tr. HNO ₃	100ml			39-6012	44,00	39-6013	84,00
		500ml			39-6014	94,00	39-6015	181,00
Arsen	As, HNO ₃	100ml	39-8016	52,00	39-6016	44,00	39-6017	73,00
		500ml			39-6018	94,00	39-6019	169,00
Barium	Ba(NO ₃) ₂ , HNO ₃	100ml	39-8020	52,00	39-6020	44,00	39-6021	73,00
		500ml			39-6022	94,00	39-6023	169,00
Beryllium	Be ₄ O(C ₂ H ₃ O ₂) ₆ , HNO ₃	100ml	39-8024	52,00	39-6024	44,00	39-6025	79,00
		500ml			39-6026	94,00	39-6027	199,00
Bismuth	Bi, HNO ₃	100ml	39-8028	52,00	39-6028	44,00	39-6029	79,00
		500ml			39-6030	94,00	39-6031	176,00
Blei		100ml	39-8032	52,00	39-6032	44,00	39-6033	73,00
		500ml			39-6034	94,00	39-6035	169,00
Bor	H ₃ BO ₃ , NH ₄ OH	100ml			39-6036	44,00	39-6039	73,00
		500ml			39-6037	94,00	39-6041	169,00
	H ₃ BO ₃ , N ₂ O	100ml			39-6038	44,00		
		500ml			39-6040	94,00		
Cadmium	Cd, HNO ₃	100ml	39-8042	52,00	39-6042	44,00	39-6043	73,00
		500ml			39-6044	94,00	39-6045	169,00
Calcium	CaCO ₃ , HNO ₃	100ml			39-6046	44,00	39-6047	73,00
		500ml			39-6048	94,00	39-6049	169,00
Cer	Ce, HNO ₃	100ml			39-6050	44,00	39-6051	73,00
		500ml			39-6052	94,00	39-6053	169,00
Cäsium	Cs ₂ CO ₃ , HNO ₃	100ml			39-6054	49,00	39-6055	83,00
		500ml			39-6056	107,00	39-6057	200,00
Chrom	Cr, HCl	100ml			39-6058	44,00	39-6059	77,00
		500ml			39-6060	94,00	39-6061	174,00
	Cr(NO ₃) ₃ , HNO ₃	100ml	39-8062	52,00	39-6062	44,00	39-6063	79,00
		500ml			39-6064	94,00	39-6065	176,00
Cobalt	Co, HNO ₃	100ml	39-8066	52,00	39-6066	44,00	39-6067	77,00
		500ml			39-6068	94,00	39-6069	174,00
Dysprosium	Dy ₂ O ₃ , HNO ₃	100ml			39-6070	52,00	39-6071	97,00
		500ml			39-6072	110,00	39-6073	228,00
Eisen	Fe, HNO ₃	100ml			39-6074	44,00	39-6075	73,00
		500ml			39-6076	94,00	39-6077	169,00
Erbium	Er ₂ O ₃ , HNO ₃	100ml			39-6078	52,00	39-6079	97,00
		500ml			39-6080	110,00	39-6081	228,00
Europium	Eu ₂ O ₃ , HNO ₃	100ml			39-6082	52,00	39-6083	97,00
		500ml			39-6084	110,00	39-6085	228,00
Gadolinium	Gd ₂ O ₃ , HNO ₃	100ml			39-6086	52,00	39-6087	97,00
		500ml			39-6088	110,00	39-6089	228,00
Gallium	Ga, HNO ₃	100ml			39-6090	52,00	39-6091	97,00
		500ml			39-6092	110,00	39-6093	228,00

Element		Menge	Konzentration 10 µg/ml		Konzentration 1.000 µg/ml		Konzentration 10.000 µg/ml	
			Best-Nr.	Preis EUR	Best-Nr.	Preis EUR	Best-Nr.	Preis EUR
Germanium	Ge, HNO ₃ /tr.HF	100ml	39-8094	52,00	39-6094	52,00	39-6095	97,00
		500ml			39-6096	110,00		
	(NH ₄) ₂ GeF ₆ , tr. F-	100ml	39-6098	65,00	39-6097	228,00		
		500ml	39-6100	133,00				
Gold	Au, HCl	100ml			39-6102	94,00	39-6103	277,00
		500ml			39-6104	234,00	39-6105	903,00
Hafnium	HfCl ₂ O, HCl	100ml			39-6110	52,00	39-6111	79,00
		500ml			39-6112	117,00	39-6113	191,00
Holmium	Ho ₂ O ₃ , HNO ₃	100ml	39-8114	52,00	39-6114	52,00	39-6115	97,00
		500ml			39-6116	110,00	39-6117	228,00
Indium	In, HNO ₃	100ml	39-8118	52,00	39-6118	52,00	39-6119	97,00
		500ml			39-6120	110,00	39-6121	228,00
Iridium	IrCl ₃ , HCl	100ml			39-6122	94,00	39-6123	383,00
		500ml			39-6124	234,00	39-6125	903,00
Kalium	KNO ₃ , HNO ₃	100ml			39-6126	44,00	39-6127	73,00
		500ml			39-6128	94,00	39-6129	169,00
Kohlenstoff	CH ₃ CO ₂ H, H ₂ O	100ml			39-6130	52,00	39-6131	97,00
		500ml			39-6132	117,00	39-6133	228,00
Kupfer	Cu, HNO ₃	100ml			39-6134	44,00	39-6135	73,00
		500ml			39-6136	94,00	39-6137	169,00
Lanthan	La ₂ O ₃ , HNO ₃	100ml			39-6138	44,00	39-6139	73,00
		500ml			39-6140	94,00	39-6141	169,00
Lithium	Li ₂ CO ₃ , HNO ₃	100ml			39-6142	44,00	39-6143	73,00
		500ml			39-6144	94,00	39-6145	169,00
Lutetium	Lu ₂ O ₃ , HNO ₃	100ml			39-6146	94,00	39-6147	384,00
		500ml			39-6148	234,00	39-6149	903,00
Magnesium	Mg, HNO ₃	100ml			39-6150	44,00	39-6151	73,00
		500ml			39-6152	94,00	39-6153	169,00
Mangan	Mn, HNO ₃	100ml	39-8154	52,00	39-6154	44,00	39-6155	73,00
		500ml			39-6156	94,00	39-6157	169,00
Molybdän	Mo, HNO ₃ /tr.HF	100ml	39-8158	52,00	39-6158	44,00	39-6159	73,00
		500ml			39-6160	94,00	39-6161	169,00
	(NH ₄) ₂ MoO ₄ , H ₂ O NH ₄ OH	100ml	39-6162	44,00	39-6163	79,00		
		500ml	39-6164	94,00	39-6165	176,00		
Natrium	Na ₂ CO ₃ , HNO ₃	100ml			39-6166	44,00	39-6167	77,00
		500ml			39-6168	94,00	39-6169	174,00
Neodym	Nd ₂ O ₃ , HNO ₃	100ml			39-6170	52,00	39-6171	97,00
		500ml			39-6172	110,00	39-6173	228,00
Nickel	Ni, HNO ₃	100ml	39-8174	52,00	39-6174	44,00	39-6175	73,00
		500ml			39-6176	94,00	39-6177	169,00
Niob	NbCl ₅ , HF	100ml			39-6178	44,00	39-6179	83,00
		500ml			39-6180	94,00	39-6181	200,00
	NH ₄ NbF ₆ , H ₂ O tr. F-	100ml			39-6182	62,00	39-6183	100,00
		500ml			39-6184	126,00	39-6185	211,00
Osmium	(NH ₄) ₂ OsCl ₆ , HCl	100ml			39-6186	101,00		
		500ml			39-6188	402,00		
Palladium	Pd, HCl	100ml			39-6190	94,00	39-6191	214,00
		500ml			39-6192	202,00	39-6193	650,00
	Pd, HNO ₃	100ml			39-6194	94,00	39-6195	214,00
		500ml			39-6196	202,00	39-6197	650,00

Element		Menge	Konzentration 10 µg/ml		Konzentration 1.000 µg/ml		Konzentration 10.000 µg/ml	
			Best-Nr.	Preis EUR	Best-Nr.	Preis EUR	Best-Nr.	Preis EUR
Phosphor	P, HNO ₃	100ml			39-6198	44,00	39-6199	73,00
		500ml			39-6200	94,00	39-6201	169,00
Platin	Pt, HCl	100ml			39-6202	94,00	39-6203	277,00
		500ml			39-6204	234,00	39-6205	903,00
Praseodym	Pr ₆ O ₁₁ , HNO ₃	100ml			39-6206	52,00	39-6207	97,00
		500ml			39-6208	110,00	39-6209	228,00
Quecksilber	Hg, HNO ₃	100ml	39-8210	52,00	39-6210	44,00	39-6211	73,00
		500ml			39-6212	94,00	39-6213	169,00
Rhenium	Re, HNO ₃	100ml			39-6214	94,00	39-6215	214,00
		500ml			39-6216	202,00	39-6217	455,00
Rhodium	RhCl ₃ , HCl	100ml	39-8218	52,00	39-6218	247,00	39-6219	682,00
		500ml			39-6220	552,00	39-6221	2665,00
Rubidium	Rb ₂ CO ₃ , HNO ₃	100ml			39-6222	52,00	39-6223	79,00
		500ml			39-6224	111,00	39-6225	199,00
Ruthenium	RuCl ₃ , HCl	100ml			39-6226	94,00	39-6227	277,00
		500ml			39-6228	202,00	39-6229	903,00
Samarium	Sm ₂ O ₃ , HNO ₃	100ml			39-6230	52,00	39-6231	97,00
		500ml			39-6232	110,00	39-6233	228,00
Scandium	Sc ₂ O ₃ , HNO ₃	100ml			39-6234	94,00	39-6235	214,00
		500ml			39-6236	202,00	39-6237	455,00
Selen	Se, HNO ₃	100ml	39-8238	52,00	39-6238	44,00	39-6239	73,00
		500ml			39-6240	94,00	39-6241	169,00
Silicium	Si, HNO ₃ , tr. HF	100ml			39-6242	44,00	39-6243	77,00
		500ml			39-6244	94,00	39-6245	174,00
	(NH ₄) ₂ SiF ₆ , H ₂ O tr. F-	100ml			39-6246	44,00	39-6247	79,00
		500ml			39-6248	94,00	39-6249	176,00
Silber	Ag, HNO ₃	100ml			39-6250	44,00	39-6251	79,00
		500ml			39-6252	94,00	39-6253	189,00
Strontium	Sr(NO ₃) ₂ , HNO ₃	100ml			39-6254	44,00	39-6255	79,00
		500ml			39-6256	94,00	39-6257	189,00
Schwefel	(NH ₄) ₂ SO ₄ , H ₂ O	100ml			39-6258	44,00	39-6259	73,00
		500ml			39-6260	94,00	39-6261	169,00
Tantal	TaCl ₅ , HF	100ml			39-6266	52,00	39-6267	79,00
		500ml			39-6268	110,00	39-6269	200,00
Tellur	Te, HCl	100ml			39-6274	49,00	39-6275	79,00
		500ml			39-6276	107,00	39-6277	200,00
	Te, HNO ₃	100ml	39-8278	52,00	39-6278	65,00		
		500ml			39-6280	133,00		
Terbium	Tb ₄ O ₇ , HNO ₃	100ml	39-8282	52,00	39-6282	52,00	39-6283	97,00
		500ml			39-6284	110,00	39-6285	228,00
Thallium	Tl, HNO ₃	100ml			39-6286	44,00	39-6287	79,00
		500ml			39-6288	94,00	39-6289	176,00
Thorium	Th(NO ₃) ₄ , HNO ₃	100ml	39-8290	52,00	39-6290	52,00	39-6291	98,00
		500ml			39-6292	110,00	39-6293	293,00
Thulium	Tm ₂ O ₃ , HNO ₃	100ml			39-6262	64,00	39-6263	97,00
		500ml			39-6264	156,00	39-6265	293,00
Titan	Ti, HNO ₃ /tr. HF	100ml	39-8294	52,00	39-6294	44,00	39-6295	73,00
		500ml			39-6296	94,00	39-6297	169,00
	(NH ₄) ₂ TiF ₆ , H ₂ O tr. F-	100ml			39-6298	44,00	39-6299	100,00
		500ml			39-6300	94,00	39-6301	211,00

Element		Menge	Konzentration 10 µg/ml		Konzentration 1.000 µg/ml		Konzentration 10.000 µg/ml	
			Best-Nr.	Preis EUR	Best-Nr.	Preis EUR	Best-Nr.	Preis EUR
Uran	U ₃ O ₈ , HNO ₃	100ml			39-6302	52,00	39-6303	79,00
		500ml			39-6304	110,00	39-6305	293,00
Vanadium	V ₂ O ₅ , HNO ₃	100ml			39-6306	44,00	39-6307	85,00
		500ml			39-6308	94,00	39-6309	176,00
Wolfram	W, HNO ₃ , tr.HF	100ml			39-6310	44,00	39-6311	79,00
		500ml			39-6312	94,00	39-6313	189,00
	(NH ₄) ₂ WO ₄ , H ₂ O	100ml			39-6314	62,00	39-6315	100,00
		500ml			39-6316	126,00	39-6317	211,00
Ytterbium	Yb ₂ O ₃ , HNO ₃	100ml			39-6318	52,00	39-6319	97,00
		500ml			39-6320	110,00	39-6321	228,00
Yttrium	Y ₂ O ₃ , HNO ₃	100ml	39-8322	52,00	39-6322	44,00	39-6323	73,00
		500ml			39-6324	94,00	39-6325	174,00
Zink	Zn, HNO ₃	100ml	39-8326	52,00	39-6326	44,00	39-6327	73,00
		500ml			39-6328	94,00	39-6329	169,00
Zinn	Sn, HCl	100ml			39-6330	44,00	39-6331	79,00
		500ml			39-6332	94,00	39-6333	174,00
	Sn, HNO ₃ , tr. HF	100ml			39-6334	44,00	39-6335	79,00
		500ml			39-6336	94,00	39-6337	174,00
Zirkon	ZrCl ₂ O, HCl	100ml			39-6338	44,00	39-6339	79,00
		500ml			39-6340	94,00	39-6341	191,00

Einzelement Isotopen-Standards

Element/ Beschreibung	Matrix	Konz. (µg/ml nom.)	Menge (ml)	Best-Nr.	Preis EUR
Blei natürliches Pb	2% HNO ₃	100	50	39-6430	150,00
Blei ²⁰⁸ Pb/ ²⁰⁶ Pb Equal	2% HNO ₃	100	50	39-6443	150,00
Bor 10 ¹⁰ B	H ₂ O	100	50	39-6431	150,00
Bor 11 ¹¹ B	H ₂ O	100	50	39-6444	150,00
Cadmium 106 ¹⁰⁶ Cd	2% HNO ₃	10	50	39-6432	229,00
Chrom 50 ⁵⁰ Cr	2% HNO ₃	10	50	39-6433	182,00
Eisen 57 ⁵⁷ Fe	2% HNO ₃	10	50	39-6434	130,00
Kupfer 65 ⁶⁵ Cu	2% HNO ₃	10	50	39-6435	95,00
Lithium 6 ⁶ Li	2% HNO ₃	100	100	39-6436	130,00
Neodym natürliches Nd	2% HNO ₃	10	50	39-6437	248,00
Nickel 61 ⁶¹ Ni	2% HNO ₃	10	50	39-6438	218,00
Selen 78 ⁷⁸ Se	2% HNO ₃	10	50	39-6439	99,00
Selen 82 ⁸² Se	2% HNO ₃	10	50	39-6440	127,00
Strontium natürliches Sr	2% HNO ₃	100	50	39-6441	150,00
Strontium 86 ⁸⁶ Sr	2% HNO ₃	10	50	39-6445	113,00
Thallium 203 ²⁰³ Tl	2% HNO ₃	10	50	39-6446	99,00
Zink 68 ⁶⁸ Zn	2% HNO ₃	10	50	39-6442	99,00
Zinn 122 ¹²² Zn	2% HNO ₃ tr. HF	10	50	39-6447	133,00

Multiement Standards in wässriger / saurer Lösung

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Alkalien & Erdalkalien (10)Ba, Be, Ca, Cs, K, Li, Mg, Na, Rb, Sr@100µg/ml
5% HNO₃

Menge	Bestell-Nr.	Preis in EUR
100 ml	39-6450	138,00
500 ml	39-6451	276,00

H																	He
Li	Be											B	C	N	O	F	Ne
Na	Mg											Al	Si	P	S	Cl	Ar
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe
Cs	Ba	La	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi			
Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu				
Th	Pa	U															

Refraktärelemente (30A)Al, B, Cr, Hf, Mo, Nb, Si, Ta, Ti, W, V, Zr@100mg/ml
5% HCl, tr. HF

Menge	Bestell-Nr.	Preis in EUR
100 ml	39-6465	152,00
500 ml	39-6466	303,00

H																	He
Li	Be											B	C	N	O	F	Ne
Na	Mg											Al	Si	P	S	Cl	Ar
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe
Cs	Ba	La	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi			
Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu				
Th	Pa	U															

Edelmetalle (40)Au, Ir, Os, Pd, Pt, Re, Rh, Ru@100µg/ml
20% HCl

Menge	Bestell-Nr.	Preis in EUR
100 ml	39-6458	151,00
500 ml	39-6459	300,00

H																	He
Li	Be											B	C	N	O	F	Ne
Na	Mg											Al	Si	P	S	Cl	Ar
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe
Cs	Ba	La	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi			
Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu				
Th	Pa	U															

Metalloide/Hydridbildende Elemente (50B)As, Bi, Ga, Ge, In, Pb, Sb, Se, Sn, Te, Tl@100µg/ml
20% HCl, tr. HF

Menge	Bestell-Nr.	Preis in EUR
100 ml	39-6460	155,00
500 ml	39-6461	309,00

H																	He
Li	Be											B	C	N	O	F	Ne
Na	Mg											Al	Si	P	S	Cl	Ar
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe
Cs	Ba	La	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi			
Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu				
Th	Pa	U															

Seltene Erden & "Geo" Elemente (60A)Ba, Ce, Dy, Er, Eu, Gd, Ho, La, Lu, Nd, Pr,
Rb, Sc, Sm, Sr, Tb, Th, Tm, U, Y, Yb@100µg/ml
5% HNO₃

Menge	Bestell-Nr.	Preis in EUR
100 ml	39-6456	239,00
500 ml	39-6457	477,00

H																	He
Li	Be											B	C	N	O	F	Ne
Na	Mg											Al	Si	P	S	Cl	Ar
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe
Cs	Ba	La	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi			
Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu				
Th	Pa	U															

Nichtmetalle (25A)As, B, P, S, Se, Si, Te@100µg/ml
5% HCl, tr. HF

Menge	Bestell-Nr.	Preis in EUR
100 ml	39-6473	117,00
500 ml	39-6474	233,00

H																	He
Li	Be											B	C	N	O	F	Ne
Na	Mg											Al	Si	P	S	Cl	Ar
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe
Cs	Ba	La	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi			
Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu				
Th	Pa	U															

Hauptkationen-Gemisch (16)

Al, Ca, Fe, K, Mg, Na@1000µg/ml

5% HNO₃

Menge	Bestell-Nr.	Preis in EUR
100 ml	39-6452	134,00
500 ml	39-6453	268,00

H																	He
Li	Be											B	C	N	O	F	Ne
Na	Mg											Al	Si	P	S	Cl	Ar
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe
Cs	Ba	La	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi			
Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu				
Th	Pa	U															

Gebräuchliche Elemente Gemisch 1 (35A)

Cd, Co, Cr, Cu, Fe, Mn, Ni, V, Zn@100µg/ml

5% HNO₃

Menge	Bestell-Nr.	Preis in EUR
100 ml	39-6467	130,00
500 ml	39-6468	260,00

H																	He
Li	Be											B	C	N	O	F	Ne
Na	Mg											Al	Si	P	S	Cl	Ar
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe
Cs	Ba	La	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi			
Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu				
Th	Pa	U															

Gebräuchliche Elemente Gemisch 2 (70B)

Ag, Al, B, Ca, Co, Cr, Cu, Fe, K, Mg,

Mn, Na, Ni, P, Pb, Si, Sn, Ti, V, Zn@100µg/ml

5% HNO₃, tr. HF

Menge	Bestell-Nr.	Preis in EUR
100 ml	39-6469	221,00
500 ml	39-6470	442,00

H																	He
Li	Be											B	C	N	O	F	Ne
Na	Mg											Al	Si	P	S	Cl	Ar
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe
Cs	Ba	La	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi			
Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu				
Th	Pa	U															

Gebräuchliche und Übergangselemente (75)

Hg@10µg/ml; Ag, Al, As, Ba, Be, Bi, Cd, Cr, Co,

Cu, Fe, Li, Mn, Mo, Ni, Pb, Sb, Se, Sr, Th, Ti, U,

V, Zn@100 µg/ml; Ca, K, Mg, Na@1000µg/ml

10% HNO₃

Menge	Bestell-Nr.	Preis in EUR
100 ml	39-6471	287,00
500 ml	39-6472	575,00

H																	He
Li	Be											B	C	N	O	F	Ne
Na	Mg											Al	Si	P	S	Cl	Ar
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe
Cs	Ba	La	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi			
Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu				
Th	Pa	U															

Umfangreiche Mischung A (80B)

Ag, Al, As, Ba, Bi, Ca, Cd, Ce, Dy, Er, Eu, Ga, Gd, Hg, Ho, La, Lu, Mg, Na, Nd, P, Pb, Pr, Rb, Sc, Se, Sm, Sr, Tb, Th, Ti, Tm, U, Y, Yb@10µg/ml

40% Königswasser

Menge	Bestell-Nr.	Preis in EUR
100 ml	39-6480	341,00
500 ml	39-6481	680,00

H																	He
Li	Be											B	C	N	O	F	Ne
Na	Mg											Al	Si	P	S	Cl	Ar
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe
Cs	Ba	La	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi			
Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu				
Th	Pa	U															

Umfangreiche Mischung B (90C)

Au, B, Be, Co, Cr, Cu, Fe, Ge, Hf, Ir, K, Li, Mn, Mo, Nb, Ni, Os, Pd, Pt, Re, Rh, Ru, Sb, Si, Sn, Ta, Te, Ti, V, W, Zn, Zr@10µg/ml

40% Königswasser, tr. HF

Menge	Bestell-Nr.	Preis in EUR
100 ml	39-6482	325,00
500 ml	39-6483	649,00

H																	He
Li	Be											B	C	N	O	F	Ne
Na	Mg											Al	Si	P	S	Cl	Ar
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe
Cs	Ba	La	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi			
Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu				
Th	Pa	U															

Metallorganische Standards

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Metallorganische Einzelement-Standards in Mineralöl

Element	Konzentration 1.000 µg/g		Konzentration 5.000 µg/g	
	Best-Nr.	Preis EUR je 50 gr.	Best-Nr.	Preis EUR je 50 gr.
Aluminium Al	39-6500	47,00	39-6501	59,00
Antimon Sb	39-6502	47,00	39-6503	59,00
Arsen As	39-6504	55,00		
Barium Ba	39-6506	47,00	39-6507	59,00
Beryllium Be	39-6508	53,00		
Bismuth Bi	39-6510	47,00	39-6511	59,00
Blei Pb	39-6512	47,00	39-6513	59,00
Bor B	39-6514	47,00	39-6515	59,00
Cadmium Cd	39-6516	47,00	39-6517	59,00
Calcium Ca	39-6518	47,00	39-6519	59,00
Chrom Cr	39-6522	47,00	39-6523	59,00
Cobalt Co	39-6524	47,00	39-6525	59,00
Eisen Fe	39-6526	47,00	39-6527	59,00
Kalium K	39-6528	47,00	39-6529	59,00
Kupfer Cu	39-6530	47,00	39-6531	59,00
Lanthanum La	39-6572	109,00		
Lithium Li	39-6532	47,00	39-6533	59,00
Magnesium Mg	39-6534	47,00	39-6535	59,00
Mangan Mn	39-6536	47,00	39-6537	59,00
Molybden Mo	39-6538	47,00	39-6539	59,00
Natrium Na	39-6540	47,00	39-6541	59,00
Nickel Ni	39-6542	47,00	39-6543	59,00
Phosphor P	39-6544	47,00	39-6545	59,00
Quecksilber Hg	39-6546	55,00		
Scandium Sc	39-6548	79,00		
Schwefel S	39-6550	47,00	39-6551	59,00
Selen Se	39-6574	55,00	39-6575	69,00
Silber Ag	39-6552	47,00	39-6553	59,00
Silicium Si	39-6554	47,00	39-6555	59,00
Strontium Sr	39-6556	47,00		
Thallium Tl	39-6558	54,00		
Titan Ti	39-6560	47,00	39-6561	59,00
Vanadium V	39-6562	47,00	39-6563	59,00
Yttrium Y	39-6564	53,00	39-6565	130,00
Zink Zn	39-6566	47,00	39-6567	59,00
Zinn Sn	39-6568	47,00	39-6569	59,00
Zirkonium Zr	39-6570	47,00	39-6571	59,00

Metallorganische Multielement-Standards, in Öl gelöst (V-Serie)

V21 Abriebmetall-Standards Ag, Al, B, Ba, Ca, Cd, Cr, Cu, Fe, Mg, Mn, Mo, Na, Ni, P, Pb, Si, Sn, Ti, V, Zn in Mineralöl				V21+K Abriebmetall- Standards Alle Elemente die in V21 enthalten sind, plus K.		V23 Abriebmetall- Standards Alle Elemente die in V21 enthalten sind, plus K und Sb.	
Konz. µg/g	Menge (Gramm)	Bestell- Nr.	Preis in EUR	Bestell- Nr.	Preis in EUR	Bestell- Nr.	Preis in EUR
10	100	39-6820	118,00	39-6800	135,00	39-6840	159,00
	200	39-6821	124,00	39-6801	140,00	39-6841	164,00
30	100	39-6822	118,00	39-6802	135,00	39-6842	159,00
	200	39-6823	124,00	39-6803	140,00	39-6843	164,00
50	100	39-6824	124,00	39-6804	140,00	39-6844	164,00
	200	39-6825	130,00	39-6805	147,00	39-6845	170,00
100	100	39-6826	130,00	39-6806	147,00	39-6846	170,00
	200	39-6827	155,00	39-6807	170,00	39-6847	194,00
300	100	39-6828	211,00	39-6808	222,00	39-6848	246,00
	200	39-6829	384,00	39-6809	393,00	39-6849	433,00
500	100	39-6830	303,00	39-6810	322,00	39-6850	358,00
	200	39-6831	550,00	39-6811	568,00	39-6851	615,00
900	100	39-6832	469,00	39-6812	491,00	39-6852	538,00
	200	39-6833	835,00	39-6813	850,00	39-6853	907,00

Interne Standards in Öl gelöst

Element	Matrix	Konz. µg/g	Menge (gramm)	Bestell- Nr.	Preis in EUR
Yttrium (Y)	Hydrocarbonöl	5000	400	39-8342	465,00
Kobalt (Co)	Terpentinersatz	6%	100	39-8343	384,00
Kobalt (Co)	Terpentinersatz	6%	200	39-8344	533,00
Kobalt (Co)	Terpentinersatz	6%	400	39-8345	884,00

Matrixöle

Artikel	Menge	Bestell- Nr.	Preis in EUR
75 cSt Mineralöl	500ml	39-6870	23,00
	3,7853 l	39-6871	85,00
20 cSt Mineralöl	500ml	39-6872	23,00
	3,7853 l	39-6873	85,00
Kerosin	500ml	39-6874	23,00
	3,7853 l	39-6875	98,00

Stabilisator für ölgelöste Standards

Produkt	Anwendung	Bestell- Nr.	Menge (gramm)	Preis in EUR
MO Stabilisator	auf Sulfonatbasis, bindet Feuchtigkeit, um das Ausfallen von Metallen zu verhindern	39-8348	50	65,00

Metallorganische Einzelement-Standards, schwefelfrei

Schwefelfreie Einzelemente in Öl	Konzentration 1.000 µg/g		Konzentration 5.000 µg/g	
	Best-Nr.	Preis EUR/50 gr.	Best-Nr.	Preis EUR/50 gr.
Aluminium Al	39-6640	68,00	39-6641	91,00
Antimon Sb	39-6642	68,00	39-6643	91,00
Arsen As	39-6644	68,00		
Barium Ba	39-6646	68,00	39-6647	91,00
Beryllium Be	39-6632	85,00	39-6633	150,00
Bismuth Bi	39-6648	55,00	39-6649	72,00
Blei Pb	39-6650	68,00	39-6651	91,00
Bor B	39-6652	68,00	39-6653	91,00
Cadmium Cd	39-6654	68,00	39-6655	91,00
Calcium Ca	39-6656	68,00	39-6657	91,00
Cer Ce	39-6658	55,00	39-6659	72,00
Chrom Cr	39-6660	55,00	39-6661	72,00
Cobalt Co	39-6662	55,00	39-6663	72,00
Eisen Fe	39-6664	68,00	39-6665	91,00
Gallium Ga	39-6634	90,00	39-6635	176,00
Gold Au	39-6636	137,00		
Kalium K	39-6666	68,00	39-6667	91,00
Kupfer Cu	39-6668	55,00	39-6669	72,00
Lithium Li	39-6672	85,00	39-6673	150,00
Magnesium Mg	39-6674	68,00	39-6675	91,00
Mangan Mn	39-6676	55,00	39-6677	72,00
Molybden Mo	39-6678	77,00	39-6679	129,00
Natrium Na	39-6680	68,00	39-6681	91,00
Nickel Ni	39-6682	55,00	39-6683	72,00
Phosphor P	39-6684	55,00	39-6685	72,00
Quecksilber Hg	39-6686	77,00		
Selen Se	39-6638	68,00	39-6639	91,00
Silber Ag	39-6690	85,00	39-6691	150,00
Silicium Si	39-6692	72,00	39-6693	124,00
Strontium Sr	39-6694	68,00	39-6695	91,00
Thallium Tl	39-6696	68,00		
Titan Ti	39-6698	55,00	39-6699	72,00
Vanadium V	39-6700	68,00	39-6701	91,00
Yttrium Y	39-6702	77,00		
Zink Zn	39-6704	68,00	39-6705	91,00
Zinn Sn	39-6706	55,00	39-6707	72,00
Zirkonium Zr	39-6708	55,00	39-6709	72,00

Schwefel Standards in Öl (Leichtmineralöl, Schwermineralöl, Diesel)

Konzentration		Menge: 100 ml		Preis: EUR 78,00
(µg/g)	(wt%)	20 cSt Mineral Oil Bestell-Nr.	75 cSt Mineral Oil Bestell-Nr.	#2 DIESEL FUEL Bestell-Nr.
Blindwert (0)	Blindwert (0,0000)	39-7040	39-7063	39-7086
5	0,0005	39-7041	39-7064	39-7087
10	0,0010	39-7042	39-7065	39-7088
15	0,0015	39-7170	39-7171	39-7172
20	0,0020	39-7173	39-7174	39-7175
25	0,0025	39-7043	39-7066	39-7089
50	0,0050	39-7044	39-7067	39-7090
75	0,0075	39-7045	39-7068	39-7091
100	0,0100	39-7046	39-7069	39-7092
200	0,0200	39-7047	39-7070	39-7093
300	0,0300	39-7048	39-7071	39-7094
400	0,0400	39-7049	39-7072	39-7095
500	0,0500	39-7050	39-7073	39-7096
750	0,0750	39-7051	39-7074	39-7097
1000	0,100	39-7052	39-7075	39-7098
1500	0,150	39-7053	39-7076	39-7099
3000	0,300	39-7054	39-7077	39-7100
5000	0,500	39-7055	39-7078	39-7101
7500	0,750	39-7056	39-7079	39-7102
10.000	1,00	39-7057	39-7080	39-7103
20.000	2,00	39-7058	39-7081	39-7104
30.000	3,00	39-7059	39-7082	39-7105
40.000	4,00	39-7060	39-7083	39-7106
50.000	5,00	39-7061	39-7084	39-7107

Schwefel in Kerosin

Menge: 100 ml

Preis in EUR: 78,00

Konzentration		
(µg/g)	(wt%)	Bestell-Nr.
Blindwert (0)	Blindwert (0,0000)	39-7124
10	0,0010	39-7126
50	0,0050	39-7128
100	0,0100	39-7130
300	0,0300	39-7132
500	0,0500	39-7134
750	0,0750	39-7135
1000	0,100	39-7136

Schwefel in Rohöl und Altöl

Menge: 100 ml

Preis in EUR: 117,00

Konzentration		Rohöl	Altöl
(µg/g)	(wt%)	Bestell-Nr.	Bestell-Nr.
Ohne Zusatz	Matrixblindwert	39-7140	
1000	0,100	39-7141	
2500	0,250	39-7142	39-7151
5000	0,500	39-7143	39-7152
10.000	1,00	39-7144	39-7153
20.000	2,00	39-7145	39-7154
30.000	3,00	39-7146	39-7155
40.000	4,00	39-7147	39-7156
50.000	5,00	39-7148	39-7157

Matrix Öl + Lösemittel

Ölmatrices und Lösungen (<1ppm Schwefel)

Material	Menge (ca.)	Bestell-Nr.	Preis in EUR
20 cSt Mineral Oil	500 ml	39-7158	23,00
20 cSt Mineral Oil	1,89 l	39-7159	72,00
75 cSt Mineral Oil	500 ml	39-7160	23,00
75 cSt Mineral Oil	1,89 l	39-7161	72,00
#2 Diesel Fuel	500 ml	39-7162	23,00
#2 Diesel Fuel	1,89 l	39-7163	85,00
Isooktan	500 ml	39-7164	24,00
Isooktan	1,89 l	39-7165	91,00
Kerosin	500 ml	39-7166	24,00
Kerosin	1,89 l	39-7167	91,00

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SPETEC® GmbH
Berghamer Str. 2
D-85435 Erding

Telefon: +49-8122/99533
Fax: +49-8122/10397

E-Mail: spetec@spetec.de
Internet: www.spetec.de

