INTERNATIONAL STANDARD

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AMENDMENT 1
2004-05-01

Water quality — Determination of six complexing agents — Gas-chromatographic method

AMENDMENT 1

Qualité de l'eau — Dosage de six agents complexants — Méthode par chromatographie en phase gazeuse

AMENDEMENT 1

Reference number
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Foreword

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Amendment 1 to ISO 16588:2002 was prepared by Technical Committee ISO/TC 147, *Water quality*, Subcommittee SC 2, *Physical, chemical and biochemical methods*.

Water quality — Determination of six complexing agents — Gas-chromatographic method

AMENDMENT 1

Page 9, Clause 10

Add the following after Clause 9 and renumber the subsequent clauses accordingly:

"10 Precision

Results from an interlaboratory trial are given for information in Annex B."

Page 12, Annex B

Add the following after Annex A.

Annex B
(informative)

Results of an interlaboratory trial

The results of an interlaboratory trial carried out in Germany are given in Table B.1.

Table B.1 — Interlaboratory trial data

Sample	Compound	l	n	o %	x_{corr} µg/l	X µg/l	η %	s_R µg/l	CV_R %	s_r µg/l	CV_r %
1	EDTA	11	41	18,0	1,2	1,3	106,9	0,24	19,1	0,16	12,3
	NTA	12	46	0,0	1,8	1,8	99,6	0,55	30,6	0,17	9,6
	DTPA	8	28	12,5	2,5	1,8	72,7	1,00	54,9	0,49	27,1
	MGDA	9	34	19,0	2,1	2,3	107,4	0,53	23,3	0,24	10,6
	β-ADA	10	38	5,0	1,9	2,0	106,2	1,09	54,2	0,23	11,3
	1,3-PDTA	7	26	35,0	2,0	1,5	76,2	0,35	22,7	0,30	19,6
2	EDTA	13	50	0,0	—	3,9	—	1,18	30,4	0,37	9,5
	NTA	10	38	9,5	—	1,0	—	0,35	36,8	0,08	8,5
	DTPA	4	15	21,1	—	0,7	—	0,15	21,3	0,10	13,9
	MGDA	—	—	—	—	—	—	—	—	—	—
	β-ADA	—	—	—	—	—	—	—	—	—	—
	1,3-PDTA	5	18	18,2	—	0,6	—	0,14	22,7	0,06	9,3
3	EDTA	12	46	8,0	2,0	3,6	182,0	1,11	30,5	0,31	8,6
	NTA	11	40	16,7	3,8	3,6	94,6	0,89	24,7	0,20	5,5
	DTPA	8	30	0,0	2,5	2,0	81,7	0,61	29,8	0,26	12,8
	MGDA	9	34	19,0	4,7	4,2	90,1	1,72	40,5	0,28	6,6
	β-ADA	11	42	0,0	3,9	3,4	87,7	1,37	39,9	0,31	9,1
	1,3-PDTA	9	34	10,5	4,0	3,5	88,1	1,34	37,9	0,34	9,6
4	EDTA	11	42	16,0	—	15,8	—	7,51	47,5	1,26	8,0
	NTA	11	42	8,7	—	4,5	—	1,36	30,4	0,42	9,4
	DTPA	8	29	3,3	5,3	3,2	59,8	1,98	62,5	0,29	9,2
	MGDA	5	17	0,0	—	0,6	—	0,23	37,9	0,10	15,6
	β-ADA	9	32	20,0	4,9	5,6	113,5	2,97	53,4	0,38	6,9
	1,3-PDTA	—	—	—	—	—	—	—	—	—	—

where

l is the number of received laboratory sets (including outliers);
n is the number of outlier-free individual analytical values;
o is the relative portion of outliers;
x_{corr} is the correct value by convention;
X is the total mean, depending on outlier-free values;
η is the recovery rate;
s_R is the reproducibility standard deviation;
CV_R is the reproducibility coefficient of variation;
s_r is the repeatability standard deviation;
CV_r is the repeatability coefficient of variation.

Sample:

1 Drinking water, spiked.
2 Surface water (Donau).
3 Surface water (Isar), spiked.
4 Effluent treatment plant Munich, spiked.