Results of Proficiency Test Free and Released Formaldehyde in Textile November 2021

Organized by: Institute for Interlaboratory Studies Spijkenisse, the Netherlands

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1 INTRODUCTION

Since 2008 the Institute for Interlaboratory Studies (iis) organizes a proficiency scheme for the analysis of Free Formaldehyde in Textile every year. This proficiency scheme was extended with Released Formaldehyde in 2013. During the annual proficiency testing program 2021/2022 it was decided to continue the proficiency test for the analysis of Free and Released Formaldehyde in Textile.

In this interlaboratory study 187 laboratories in 39 different countries registered for participation. See appendix 3 for the number of participants per country. In this report the results of the Free and Released Formaldehyde in Textile proficiency test are presented and discussed. This report is also electronically available through the iis website www.iisnl.com.

2 SET UP

The Institute for Interlaboratory Studies (iis) in Spijkenisse, the Netherlands, was the organizer of this proficiency test (PT). Sample analyzes for fit-for-use and homogeneity testing were subcontracted to an ISO/IEC17025 accredited laboratory. It was decided to send two different textile samples: approximately 5 grams blue cotton pieces labelled #21755 and approximately 5 grams green cotton pieces labelled #21756. Both samples are positive on Formaldehyde.

The participants were requested to report rounded and unrounded test results. The unrounded test results were preferably used for the statistical evaluation.

2.1 QUALITY SYSTEM

The Institute for Interlaboratory Studies in Spijkenisse, the Netherlands, has implemented a quality system based on ISO/IEC17043:2010. This ensures strict adherence to protocols for sample preparation and statistical evaluation and 100% confidentiality of participant's data. Feedback from the participants on the reported data is encouraged and customer's satisfaction is measured on regular basis by sending out questionnaires.

2.2 PROTOCOL

The protocol followed in the organization of this proficiency test was the one as described for proficiency testing in the report 'iis Interlaboratory Studies: Protocol for the Organisation, Statistics and Evaluation' of June 2018 (iis-protocol, version 3.5). This protocol is electronically available through the iis website www.iisnl.com, from the FAQ page.

2.3 CONFIDENTIALITY STATEMENT

All data presented in this report must be regarded as confidential and for use by the participating companies only. Disclosure of the information in this report is only allowed by means of the entire report. Use of the contents of this report for third parties is only allowed by written permission of the Institute for Interlaboratory Studies. Disclosure of the identity of one or more of the participating companies will be done only after receipt of a written agreement of the companies involved.

2.4 SAMPLES

For the first sample a batch of approximately 1300 grams blue cotton was obtained from a third party. After cutting and homogenization 220 bags were filled with approximately 5 grams each and labelled #21755. Each subsample was wrapped in aluminum foil and packed again in a bag.

The homogeneity of the subsamples was checked by the determination of Free Formaldehyde according to an in house method on 5 stratified randomly selected subsamples.

	Free Formaldehyde in mg/kg
sample #21755-1	120.0
sample #21755-2	122.5
sample #21755-3	122.8
sample #21755-4	122.0
sample #21755-5	121.0

Table 1: homogeneity test results of subsamples #21755

From the above test results the repeatability was calculated and compared with 0.3 times the estimated reproducibility calculated with the Horwitz equation in agreement with the procedure of ISO13528, Annex B2 in the next table.

	Free Formaldehyde in mg/kg
r (observed)	3.2
reference method	Horwitz
0.3 x R (reference method)	7.9

Table 2: evaluation of the repeatability of subsamples #21755

The calculated repeatability is in agreement with 0.3 times the estimated reproducibility calculated with the Horwitz equation. Therefore, homogeneity of the subsamples was assumed.

For the second sample a batch of approximately 1200 grams green cotton was prepared. After cutting and homogenization 220 bags were filled with approximately 5 grams each and labelled #21756. Each subsample was wrapped in aluminum foil and packed again in a bag. The homogeneity of the subsamples was checked by the determination of Formaldehyde according to an in house method on 10 stratified randomly selected subsamples.

	Formaldehyde in mg/kg
sample #21756-1	43.6
sample #21756-2	44.3
sample #21756-3	42.9
sample #21756-4	43.5
sample #21756-5	43.4

	Formaldehyde in mg/kg		
sample #21756-6	44.6		
sample #21756-7	43.7		
sample #21756-8	45.8		
sample #21756-9	43.9		
sample #21756-10	44.5		

Table 3: homogeneity test results of subsamples #21756

From the above test results the repeatability was calculated and compared with 0.3 times the estimated reproducibility calculated with the Horwitz equation in agreement with the procedure of ISO13528, Annex B2 in the next table.

	Formaldehyde in mg/kg
r (observed)	2.3
reference method	Horwitz
0.3 x R (reference method)	3.3

Table 4: evaluation of the repeatability of subsamples #21756

The calculated repeatability is in agreement with 0.3 times the estimated reproducibility calculated with the Horwitz equation. Therefore, homogeneity of the subsamples was assumed.

To each of the participating laboratories one textile sample labelled #21755 and one textile sample labelled #21756 was sent at October 6, 2021.

2.5 ANALYZES

The participants were requested to determine Free and Released Formaldehyde on both samples #21755 and #21756.

It was also requested to report if the laboratory was accredited for the reported components and to report some analytical details.

It was explicitly requested to treat the samples as if they were routine samples and to report the test results using the indicated units on the report form and not to round the test results, but report as much significant figures as possible. It was also requested not to report 'less than' test results, which are above the detection limit, because such test results cannot be used for meaningful statistical evaluations.

To get comparable test results a detailed report form and a letter of instructions are prepared. On the report form the reporting units are given as well as the reference test methods (when applicable) that will be used during the evaluation. The detailed report form and the letter of instructions are both made available on the data entry portal www.kpmd.co.uk/sgs-iis-cts/. The participating laboratories are also requested to confirm the sample receipt on this data entry portal. The letter of instructions can also be downloaded from the iis website www.iisnl.com.

3 RESULTS

During five weeks after sample dispatch, the test results of the individual laboratories were gathered via the data entry portal www.kpmd.co.uk/sgs-iis/. The reported test results are tabulated per determination in appendix 1 of this report. The laboratories are presented by their code numbers.

Directly after the deadline, a reminder was sent to those laboratories that had not reported test results at that moment. Shortly after the deadline, the available test results were screened for suspect data. A test result was called suspect in case the Huber Elimination Rule (a robust outlier test) found it to be an outlier. The laboratories that produced these suspect data were asked to check the reported test results (no reanalyzes). Additional or corrected test results are used for data analysis and the original test results are placed under 'Remarks' in the result tables in appendix 1. Test results that came in after the deadline were not taken into account in this screening for suspect data and thus these participants were not requested for checks.

3.1 STATISTICS

The protocol followed in the organization of this proficiency test was the one as described for proficiency testing in the report 'iis Interlaboratory Studies: Protocol for the Organisation, Statistics and Evaluation' of June 2018 (iis-protocol, version 3.5).

For the statistical evaluation the *unrounded* (when available) figures were used instead of the rounded test results. Test results reported as '<...' or '>...' were not used in the statistical evaluation.

First, the normality of the distribution of the various data sets per determination was checked by means of the Lilliefors-test, a variant of the Kolmogorov-Smirnov test and by the calculation of skewness and kurtosis. Evaluation of the three normality indicators in combination with the visual evaluation of the graphic Kernel density plot, lead to judgement of the normality being either 'unknown', 'OK', 'suspect' or 'not OK'. After removal of outliers, this check was repeated. If a data set does not have a normal distribution, the (results of the) statistical evaluation should be used with due care.

The assigned value is determined by consensus based on the test results of the group of participants after rejection of the statistical outliers and/or suspect data.

According to ISO13528 all (original received or corrected) results per determination were submitted to outlier tests. In the iis procedure for proficiency tests, outliers are detected prior to calculation of the mean, standard deviation and reproducibility. For small data sets, Dixon (up to 20 test results) or Grubbs (up to 40 test results) outlier tests can be used. For larger data sets (above 20 test results) Rosner's outlier test can be used. Outliers are marked by D(0.01) for the Dixon's test, by G(0.01) or DG(0.01) for the Grubbs' test and by R(0.01) for the Rosner's test. Stragglers are marked by D(0.05) for the Dixon's test, by G(0.05) for the Rosner's test. Both outliers and stragglers were not included in the calculations of averages and standard deviations.

For each assigned value the uncertainty was determined in accordance with ISO13528. Subsequently the calculated uncertainty was evaluated against the respective requirement based on the target reproducibility in accordance with ISO13528. In this PT, the criterion of ISO13528, paragraph 9.2.1. was met for all evaluated tests, therefore, the uncertainty of all assigned values may be negligible and need not be included in the PT report.

Finally, the reproducibilities were calculated from the standard deviations by multiplying them with a factor of 2.8.

3.2 GRAPHICS

In order to visualize the data against the reproducibilities from literature, Gauss plots were made, using the sorted data for one determination (see appendix 1). On the Y-axis the reported test results are plotted. The corresponding laboratory numbers are on the X-axis. The straight horizontal line presents the consensus value (a trimmed mean). The four striped lines, parallel to the consensus value line, are the +3s, +2s, -2s and -3s target reproducibility limits of the selected reference test method. Outliers and other data, which were excluded from the calculations, are represented as a cross. Accepted data are represented as a triangle.

Furthermore, Kernel Density Graphs were made. This is a method for producing a smooth density approximation to a set of data that avoids some problems associated with histograms. Also, a normal Gauss curve (dotted line) was projected over the Kernel Density Graph (smooth line) for reference. The Gauss curve is calculated from the consensus value and the corresponding standard deviation.

3.3 Z-SCORES

To evaluate the performance of the participating laboratories the z-scores were calculated. As it was decided to evaluate the performance of the participants in this proficiency test (PT) against the literature requirements, the z-scores were calculated using a target standard deviation. This results in an evaluation independent of the variation in this interlaboratory study.

The target standard deviation was calculated from the literature reproducibility by division with 2.8. In case no literature reproducibility was available, other target values were used, like Horwitz or an estimated reproducibility based on former iis proficiency tests.

When a laboratory did use a test method with a reproducibility that is significantly different from the reproducibility of the reference test method used in this report, it is strongly advised to recalculate the z-score, while using the reproducibility of the actual test method used, this in order to evaluate whether the reported test result is fit-for-use. The z-scores were calculated according to:

 $z_{(target)}$ = (test result - average of PT) / target standard deviation

The $z_{(target)}$ scores are listed in the test result tables in appendix 1.

Absolute values for z<2 are very common and absolute values for z>3 are very rare. Therefore, the usual interpretation of z-scores is as follows:

	z	< 1	good
1 <	z	< 2	satisfactory
2 <	z	< 3	questionable
3 <	z		unsatisfactory

4 EVALUATION

In this proficiency test some problems were encountered with the dispatch of the samples. Thirteen participants reported test results after the final reporting date and four other participants were not able to report any test results. Not all participants were able to report all parameters requested.

In total 183 participants reported 529 numerical test results. Observed were 12 outlying test results, which is 2.3%. In proficiency tests outlier percentages of 3% - 7.5% are quite normal.

Not all data sets proved to have a normal Gaussian distribution. These are referred to as "not OK" or "suspect". The statistical evaluation of these data sets should be used with due care, see also paragraph 3.1.

4.1 EVALUATION PER SAMPLE AND PER TEST

In this section the reported test results are discussed per sample and per test. The test methods which were used by the various laboratories were taken into account for explaining the observed differences when possible and applicable. These test methods are also in the tables together with the original data in appendix 1. The abbreviations, used in these tables, are explained in appendix 4.

The method for determination of the Free Formaldehyde is specified in the Standards of the Ecolabelling Institutes. It should be noted that ISO14184-1 corresponds to the Japanese method specified in the Japanese Law 112 and is described in the Japanese Standard JIS L1096. In test methods ISO14184-1:11 and ISO14184-2:11 some information on precision data is given. In table B.1 of ISO14184-1 and table C.2 of ISO14184-2 precision values are mentioned, but they were obtained using slightly different methods than mentioned in both ISO14184 methods. Therefore, it was concluded that reliable reproducibility data cannot be obtained from the ISO14184 test methods. Therefore, the calculated reproducibility was compared against the estimated reproducibility calculated with the Horwitz equation.

sample #21755

<u>Free Formaldehyde:</u> This determination was not problematic. Four statistical outliers were observed. The calculated reproducibility after rejection of the statistical outliers is in agreement with the estimated reproducibility calculated with the Horwitz equation.

<u>Released Formaldehyde:</u> This determination was not problematic. Three statistical outliers were observed. The calculated reproducibility after rejection of the statistical outliers is in full agreement with the estimated reproducibility calculated with the Horwitz equation.

sample #21756

- <u>Free Formaldehyde:</u> This determination was not problematic. Two statistical outliers were observed. The calculated reproducibility after rejection of the statistical outliers is in agreement with the estimated reproducibility calculated with the Horwitz equation.
- <u>Released Formaldehyde:</u> This determination may be problematic. Three statistical outlier were observed. The calculated reproducibility after rejection of the statistical outliers is not in agreement with the estimated reproducibility calculated with the Horwitz equation.

4.2 **PERFORMANCE EVALUATION FOR THE GROUP OF LABORATORIES**

A comparison has been made between the reproducibility as declared by the estimated reproducibility calculated with the Horwitz equation and the reproducibility as found for the group of participating laboratories. The number of significant test results, the average, the calculated reproducibility (2.8 * standard deviation) and the target reproducibility estimated using the Horwitz equation are presented in the next table.

Component	unit	n	average	2.8 * sd	R(target)
Free Formaldehyde	mg/kg	179	71.9	13.6	16.9
Released Formaldehyde	mg/kg	79	79.1	17.7	18.3

Table 5: reproducibilities of components on sample #21755

Component	unit	n	average	2.8 * sd	R(target)
Free Formaldehyde	mg/kg	181	71.6	14.1	16.9
Released Formaldehyde	mg/kg	78	121.8	31.3	26.5

Table 6: reproducibilities of components on sample #21756

Without further statistical calculations, it can be concluded that for most components there is a good compliance of the group of participants with the reference methods. The problematic tests have been discussed in paragraph 4.1 and 5.

4.3 COMPARISON OF THE PROFICIENCY TEST OF NOVEMBER 2021 WITH PREVIOUS PTS

	November 2021	November 2020	November 2019	November 2018	November 2017
Number of reporting laboratories	183	174	183	185	184
Number of test results	529	705	489	512	511
Number of statistical outliers	12	15	11	11	15
Percentage of statistical outliers	2.3%	2.1%	2.2%	2.1%	2.9%

Table 7: comparison with previous proficiency tests

In proficiency tests, outlier percentages of 3% - 7.5% are quite normal.

The performance of the determinations of the proficiency tests was compared expressed as relative standard deviation (RSD) of the PTs, see next table.

	November 2021	November 2020	November 2019	November 2018	November 2017
Free Formaldehyde	7%	6-9%	7-9%	12-13%	9-10%
Released Formaldehyde	8-9%	8-10%	8-9%	11%	7-8%

Table 8: comparison of the uncertainties over the years

The uncertainties observed in this PT for Free and Released Formaldehyde are in line compared to the uncertainties observed in previous PTs.

4.4 EVALUATION OF ANALYTICAL DETAILS

The analytical details that were reported by the participants are listed in appendix 2. About 88% of the reporting laboratories mentioned to be accredited for the determination of Free and Released Formaldehyde in textile.

For this PT the sample intake for Free and Released determination was requested separately. It appeared that for both Free and Released determination about 85% of the reporting laboratories used 1 grams of sample intake and about 8% used 0.5 grams. Participants that used more than 1 grams of sample intake did so somewhat more often at the Free determination (12%) compared to the Released determination (3%). About 50% reported to have done the Dimedone confirmation test to verify the positive test results of the Formaldehyde determination especially for sample #21756.

No further sub analysis is performed as most of the observed reproducibilities are.in line with the target reproducibilities.

5 DISCUSSION

In this PT the average of the homogeneity test results is not in line with the average (consensus value) from the PT results. There are several reasons for this. First, the goal of the homogeneity testing is different from the goal of the evaluation of the reported PT results. In order to prove the homogeneity of the PT samples, a test method is selected with a high precision (smallest variation). The accuracy (trueness) of the test method is less relevant. Secondly, the homogeneity testing is done by one laboratory only. The test results of this ISO/IEC17025 accredited laboratory will have a bias (systematic deviation) depending on the test method used. The desire to detect small variations between the PT samples leads to the use of a sensitive test method with high precision, which may be a test method with significant bias.

Also, each test result reported by the laboratories that participate in the PT will have a bias. However, some will have a positive bias and others a negative bias. These different biases compensate each other in the PT average (consensus value). Therefore, the PT consensus value may deviate from the average of the homogeneity test. At the same time the accuracy of the PT consensus value is more reliable than the accuracy of the average of the homogeneity test.

When the results of this interlaboratory study were compared to the Ecolabelling Standards and Requirements for Textiles in EU and with the similar Bluesign® BSSL, it was noticed that not all participants would make identical decisions about the acceptability of the textiles for the determined components, see next table.

Ecolabel	baby clothes	in direct skin contact	no direct skin contact
Oeko-Tex 100	<16 mg/kg	<75 mg/kg	<150 mg/kg
Bluesign® BSSL	<15 mg/kg	<75 mg/kg	<300 mg/kg

Table 9: Bluesign® BSSL and Ecolabelling Standards and Requirements for Textiles in EU

sample #21755

For the category "baby clothes" all reporting laboratories would have rejected the sample. For the category "in direct skin contact" 26% of the reporting laboratories would have rejected the sample for free formaldehyde while this is 71% for released formaldehyde. For the category "no direct skin contact" all of the reporting laboratories would have accepted the sample.

sample #21756

For the category "baby clothes" all reporting laboratories would have rejected the sample. For the category "in direct skin contact" 20% of the reporting laboratories would have rejected the sample for free formaldehyde while all laboratories would reject for released formaldehyde, except for one laboratory.

For the category "no direct skin contact" all of the reporting laboratories would have accepted the sample, except for two laboratories who would reject the sample based on Oeko-Tex 100.

6 CONCLUSION

In this proficiency test the Free- and Released Formaldehyde were determined. The variation observed for Free- and Released Formaldehyde in this interlaboratory study are in line with observations in the previous proficiency tests. A possible explanation for the variation could be the preparation or the conditioning of the sample and/or by the performance of the analysis by the laboratory.

Each laboratory should evaluate its performance in this study and make decisions about necessary corrective actions. Therefore, participation on a regular basis in this scheme could be helpful to improve the performance and thus increase of the quality of the analytical results.

APPENDIX 1

Determination of Free Formaldehyde on sample #21755; results in mg/kg

lab	method	value	mark	z(targ)	remarks
110	ISO14184-1	74 19		0.38	
210	ISO14184-1	71 156		-0.12	
339	ISO14184-1	72.2		0.05	
362	ISO14184-1	72.05		0.00	
551	ISO14184-1	72.00		0.03	
622	ISO14184-1	44 01	C R(0.01)	-4 61	first reported 44 69
623	ISO14184-1	51 56	R(0.01)	-3.37	
8/0	ISO14184_1	70.6	11(0.01)	-0.22	
841	ISO14184-1	60.3		-0.22	
2102	10014104-1	00.0		-0.40	
2102	1501/18/ 1	75 74		0.63	
2113	15014184-1	60.60		0.03	
2102	15014184-1	77.60		-0.30	
2133	15014184-1	60.15		0.94	
2137	15014184-1	74.60		-0.40	
2140	15014184-1	74.00		0.45	
2109	15014184-1	70.02		-0.21	
2100	15014184-1	02.65		-0.02	
2170	15014184-1	63.05 60 F		1.94	
2102	15014184-1	72.5		-1.00	
2104	15014184-1	73.3		0.20	
2201	15014164-1	/ 1.10		-0.12	
2213	15014184-1	01.3		1.00	
2218	15014184-1	70.97		-0.16	
2220	JIS L1041L	/1.3		-0.10	
2223	ISO14184-1	65.9		-0.99	
2225	ISO14184-1	68.91	•	-0.50	
2226	ISO14184-1	66.42	C	-0.91	first reported 91.60
2232	ISO14184-1	70.43		-0.24	
2236	ISO14184-1	/1.53		-0.06	
2238	ISO14184-1	72.51		0.10	
2247	ISO14184-1	69.20		-0.45	
2250	ISO14184-1	74.91		0.50	
2255	ISO14184-1	62.0		-1.64	
2256	ISO14184-1	67.41		-0.74	
2264	GB/T2912	62.79		-1.51	
2265	ISO14184-1	78.48		1.09	
2269	ISO14184-1	65.94		-0.99	
2275	ISO14184-1	72.2		0.05	
2279	ISO14184-1	66.86		-0.84	
2284	ISO14184-1	77.9		0.99	
2289	ISO14184-1	76.70		0.79	
2290	ISO14184-1	68.3		-0.60	
2293	ISO14184-1	70.59		-0.22	
2295	ISO14184-1	79.5		1.26	
2297	ISO14184-1	71.6		-0.05	
2310	ISO14184-1	70		-0.32	
2311	ISO14184-1	75.057		0.52	
2313	ISO14184-1	67.20		-0.78	
2314	ISO14184-1	68.51		-0.56	
2330	ISO14184-1	62.98		-1.48	
2347	ISO14184-1	70		-0.32	
2350	ISO14184-1	72.88		0.16	
2351	ISO14184-1	78		1.01	
2356	ISO14184-1	71.5		-0.07	
2358	ISO14184-1	72.36		0.07	
2360	ISO14184-1	77.8		0.97	
2363	ISO14184-1	71.4		-0.08	
2364	ISO14184-1	75.0		0.51	
2365	ISO14184-1	71.87		-0.01	
2366	ISO14184-1	71		-0.15	
2367	ISO14184-1	78.7		1.12	
2370	ISO14184-1	71.12		-0.13	
2372	ISO14184-1	67.3		-0.76	
2373	ISO14184-1	78.7		1.12	
2375	ISO14184-1	73		0.18	
2378	ISO14184-1	75.9		0.66	
2379	ISO14184-1	75.50		0.59	
2380	ISO14184-1	63.1		-1.46	
2381	ISO14184-1	67.10		-0.80	
2382	ISO14184-1	74.0		0.35	
2383	GB/T2912	77.9		0.99	
2385	ISO14184-1	70		-0.32	
2390	ISO14184-1	73.01		0.18	
2401	ISO14184-1	70		-0.32	

$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	lah	method	value	mark	z(targ)	remarks
2944 BO14164-1 70 0.32 2455 BO14184-1 98 7 0.37 2468 BO14184-1 754 0.57 2428 BO14184-1 756 0.61 2428 BO14184-1 756 0.61 2428 BO14184-1 756 0.61 2428 BO14184-1 756 0.61 2424 BO14184-1 756 0.61 2437 BO14184-1 756 0.61 2448 BO14184-1 756 0.60 2447 BO14184-1 778 0.37 2448 BO14184-1 778 0.37 2448 BO14184-1 778 0.30 2448 BO14184-1 78.12 0.30 2459 BO14184-1 78.12 0.30 2501 BO14184-1 78.12 0.30 2501 BO14184-1 78.12 0.30 2501 BO14184-1 78.62 1.78 2501	2403	ISO14184-1	72.13	mark	0.04	Tomano
2468 15014164-1 607 -0.66 2426 15014164-1 75.4 0.53 2428 15014164-1 70.30 -0.27 2438 15014164-1 70.30 -0.27 2438 15014164-1 70.65 -0.61 2438 15014164-1 70.65 -0.21 2438 15014164-1 70.52 -0.77 2441 15014164-1 77.52 -0.77 2445 15014164-1 77.50 -0.61 2446 15014164-1 77.60 -0.61 24476 15014164-1 77.60 -0.61 2448 15014164-1 77.60 -0.61 2448 15014164-1 77.60 -0.61 2448 15014164-1 77.60 -0.61 2449 15014164-1 77.60 -0.61 2441 15014164-1 77.62 -0.61 2441 15014164-1 77.62 -0.61 2551 15014164-1 77.62 <t< td=""><td>2404</td><td>ISO14184-1</td><td>70.0</td><td></td><td>-0.32</td><td></td></t<>	2404	ISO14184-1	70.0		-0.32	
2425 ISOL1164-1 754 0.537 2438 ISOL1184-1 70.30 0.277 2449 ISOL1184-1 70.30 0.277 2449 ISOL1184-1 70.56 0.217 2449 ISOL1184-1 70.56 0.21 2454 ISOL1184-1 70.56 0.21 2454 ISOL1184-1 75.24 0.53 2454 ISOL1184-1 67.27 0.77 2454 ISOL1184-1 77.80 0.60 2454 ISOL1184-1 77.80 0.61 2454 ISOL1184-1 77.80 0.61 2454 ISOL1184-1 76.0 0.62 2454 ISOL1184-1 76.0 0.62 2561 ISOL1184-1 76.0 0.62 2561 ISOL1184-1 76.0 0.62 2561 ISOL1184-1 74.30 0.50 2561 ISOL1184-1 74.33 0.50 2561 ISOL1184-1 74.33 0.50	2406	ISO14184-1	67.82		-0.68	
2428 ISO14184-1 75.4 0.58 2438 ISO14184-1 70.30 -0.27 2438 ISO14184-1 70.57 -0.57 2438 ISO14184-1 70.56 -0.57 2438 ISO14184-1 70.56 -0.57 2438 ISO14184-1 70.52 -0.57 2448 ISO14184-1 69.23 -0.44 2451 ISO14184-1 70.2 -0.27 2464 ISO14184-1 70.2 -0.27 2476 ISO14184-1 70.2 -0.27 2476 ISO14184-1 70.2 -0.27 2476 ISO14184-1 70.2 -0.27 2476 ISO14184-1 70.2 -0.27 2478 ISO14184-1 70.2 -0.27 2478 ISO14184-1 70.2 -0.27 2478 ISO14184-1 70.2 -0.16 2511 ISO14184-1 70.5 -0.43 25141 ISO14184-1 70.5 -0.43 </td <td>2425</td> <td>ISO14184-1</td> <td>69.7</td> <td></td> <td>-0.37</td> <td></td>	2425	ISO14184-1	69.7		-0.37	
2429 ISO14194-1 70.30 -0.27 2431 ISO14184-1 75.8 -0.57 2442 ISO14184-1 75.8 -0.61 2443 ISO14184-1 75.24 -0.65 2454 ISO14184-1 75.24 -0.64 2454 ISO14184-1 77.24 -0.77 2464 ISO14184-1 77.25 -0.63 2474 ISO14184-1 77.55 -0.60 2474 ISO14184-1 77.60 -0.64 2501 ISO14184-1 76.62 -0.74 2501 ISO14184-1 73.12 -0.20 2501 ISO14184-1 76.62 -0.78 2501 ISO14184-1 79.4 -1.85 2511 ISO14184-1 79.4 -1.85 2511 ISO14184-1 79.4 -1.85 2511 ISO14184-1 79.4 -1.66 2521 ISO14184-1 79.4 -0.61 2524 ISO14184-1 78.4 0.6	2426	ISO14184-1	75.4		0.58	
2424 18014184-1 70.29 -0.27 2449 18014184-1 70.6 0.61 2451 18014184-1 70.6 0.21 2463 18014184-1 70.6 0.21 2464 18014184-1 70.6 0.24 2457 18014184-1 70.2 0.24 2474 18014184-1 77.5 0.80 2475 18014184-1 77.6 0.80 2476 18014184-1 76.6 0.80 2476 18014184-1 76.60 0.78 2476 18014184-1 76.62 0.78 2501 18014184-1 66.0 0.80 2501 18014184-1 66.0 0.43 2511 18014184-1 66.6 0.43 2531 18014184-1 74.430 0.80 2531 18014184-1 74.430 0.80 2531 18014184-1 74.430 0.80 2541 18014184-1 74.62 0.81	2429	ISO14184-1	70.30		-0.27	
2442 ISO14184-1 76.6 0.57 2453 ISO14184-1 70.65 0.21 2454 ISO14184-1 70.65 0.21 2457 ISO14184-1 67.27 0.77 2458 ISO14184-1 75.56 0.60 2474 ISO14184-1 75.56 0.60 2475 ISO14184-1 75.56 0.60 2476 ISO14184-1 75.56 0.60 2476 ISO14184-1 75.56 0.78 2476 ISO14184-1 76.62 0.78 2501 ISO14184-1 76.62 0.78 2501 ISO14184-1 76.90 0.68 2503 ISO14184-1 76.90 0.68 2504 ISO14184-1 76.90 0.68 2503 ISO14184-1 76.90 0.68 2504 ISO14184-1 76.90 0.68 2505 ISO14184-1 76.90 0.68 2504 ISO14184-1 76.90 0.68 2505 ISO14184-1 76.90 0.68 2504 ISO14184-1 76.90 0.68 2505 ISO14184-1 76.90 0.68 2504 ISO14184-1 76.90	2433	ISO14184-1	70.29		-0.27	
2449 ISO14184-1 76.6 0.61 2451 ISO14184-1 70.25 0.21 2451 ISO14184-1 75.24 0.35 2457 ISO14184-1 77.2 0.37 2475 ISO14184-1 77.56 0.08 2474 ISO14184-1 77.80 0.97 2475 ISO14184-1 77.80 0.97 2476 ISO14184-1 77.80 0.97 2483 ISO14184-1 78.00 0.88 2475 ISO14184-1 76.00 0.88 2483 ISO14184-1 76.00 0.43 2504 ISO14184-1 76.50 0.78 2504 ISO14184-1 76.50 0.78 2504 ISO14184-1 74.500 0.43 2511 ISO14184-1 74.500 0.43 2531 ISO14184-1 74.500 0.44 2531 ISO14184-1 74.750 1.04 2531 ISO14184-1 74.83 0.50 2531 ISO14184-1 74.83 0.40 2531 ISO14184-1 74.75 1.04 2531 ISO14184-1 74.83 0.51 2531 ISO14184-1 74.83	2442	ISO14184-1	68.47		-0.57	
243. ISO14184-1 70.65 -0.21 2446. ISO14184-1 69.23 -0.44 2457. ISO14184-1 69.23 -0.44 2457. ISO14184-1 75.56 0.60 2474. ISO14184-1 75.56 0.60 2475. ISO14184-1 64.2 -1.28 2433. ISO14184-1 76.0 0.68 2446. ISO14184-1 76.0 0.68 2450. ISO14184-1 76.0 0.68 2500. ISO14184-1 76.0 0.68 2501. ISO14184-1 76.0 0.68 2501. ISO14184-1 76.0 0.68 2511. ISO14184-1 76.0 0.68 2511. ISO14184-1 74.50 -1.35 2511. ISO14184-1 76.0 0.68 2511. ISO14184-1 76.0 0.68 2514. ISO14184-1 74.50 0.50 2514. ISO14184-1 74.50 0.50 2514. ISO14184-1 74.50 0.50 2527. ISO14184-1 74.7 0.46 2528. ISO14184-1 74.7 0.46 2529. ISO14184-1 <td< td=""><td>2449</td><td>ISO14184-1</td><td>75.6</td><td></td><td>0.61</td><td></td></td<>	2449	ISO14184-1	75.6		0.61	
2446 18014184-1 75.24 0.55 2467 18014184-1 67.27 -0.17 2478 18014184-1 77.80 0.97 2478 18014184-1 77.80 0.97 2478 18014184-1 77.80 0.81 2478 18014184-1 76.0 0.83 2483 18014184-1 76.1 0.20 2501 18014184-1 76.62 0.78 2501 18014184-1 76.62 0.78 2511 18014184-1 76.62 0.78 2511 18014184-1 76.0 0.68 25201 18014184-1 76.0 0.68 25201 18014184-1 76.0 0.68 25201 18014184-1 74.93 0.50 2533 18014184-1 74.93 0.50 2549 18014184-1 74.93 0.50 2573 18014184-1 74.73 0.46 2573 18014184-1 74.74 0.46 2573 18014184-1 74.7 0.46 2573 18014184-1 74.7 0.46 2573 18014184-1 74.7 0.46 2584 18014184-1 77.8 <td< td=""><td>2453</td><td>ISO14184-1</td><td>70.65</td><td></td><td>-0.21</td><td></td></td<>	2453	ISO14184-1	70.65		-0.21	
2468 ISO14184-1 63.23 -0.44 2477 ISO14184-1 70.2 -0.28 2478 ISO14184-1 70.2 -0.28 2478 ISO14184-1 64.2 -1.28 2478 ISO14184-1 64.2 -1.28 2483 ISO14184-1 64.2 -1.28 2493 ISO14184-1 76.6 0.68 24948 ISO14184-1 76.62 0.78 2501 ISO14184-1 76.62 0.78 2504 ISO14184-1 63.09 C.R(0.01) -5.92 2504 ISO14184-1 63.09 C.R(0.01) -5.92 2501 ISO14184-1 66.7 -1.36 2501 ISO14184-1 74.30 0.60 2501 ISO14184-1 74.37 1.04 2561 ISO14184-1 76.3 -0.87 2572 ISO14184-1 66.3 -0.87 2581 ISO14184-1 71.26 -0.11 2581 ISO14184-1 74.7 0.64 2581 ISO14184-1 74.7 <td>2454</td> <td>ISO14184-1</td> <td>75.24</td> <td></td> <td>0.55</td> <td></td>	2454	ISO14184-1	75.24		0.55	
2452 ISO14184-1 702 -0.77 2474 ISO14184-1 7550 0.60 2474 ISO14184-1 7550 0.61 2475 ISO14184-1 760 0.68 2482 ISO14184-1 73.12 0.20 2500 ISO14184-1 76.62 0.78 2504 ISO14184-1 76.62 0.74 2504 ISO14184-1 76.62 0.78 2505 ISO14184-1 76.62 0.78 2506 ISO14184-1 76.0 -0.68 2505 ISO14184-1 76.0 -0.68 2506 ISO14184-1 76.4 1.24 2508 ISO14184-1 76.4 -0.61 2509 ISO14184-1 76.4 -0.61 2501 ISO14184-1 76.4 -0.61 2502 ISO14184-1 76.4 -0.61 2503 ISO14184-1 76.4 -0.61 2504 ISO14184-1 74.7 0.46 2505 ISO14184-1 74.8 0.61 2508 </td <td>2456</td> <td>ISO14184-1</td> <td>69.23</td> <td></td> <td>-0.44</td> <td></td>	2456	ISO14184-1	69.23		-0.44	
2447 ISO14184-1 70.2 -0.28 2447 ISO14184-1 77.80 0.37 2447 ISO14184-1 77.80 0.37 2448 ISO14184-1 76.0 0.68 2449 ISO14184-1 76.0 0.68 2450 ISO14184-1 76.2 0.76 2501 ISO14184-1 76.2 0.78 2504 ISO14184-1 61.9 0.43 2511 ISO14184-1 63.09 C.R(0.01) -5.92 2511 ISO14184-1 66.1 -0.43 2526 ISO14184-1 66.61 -0.87 2535 ISO14184-1 66.63 -0.87 2569 ISO14184-1 66.3 -0.87 2571 ISO14184-1 66.3 -0.87 2585 ISO14184-1 66.3 -0.87 2586 ISO14184-1 66.3 -0.81 2587 ISO14184-1 66.3 -0.81 2588 ISO14184-1 71.28 -0.46 2591 ISO14184-1 67.37 -0.46 2591 ISO14184-1 71.28 -0.75 2681 ISO14184-1 71.80 -0.46 2591 ISO14184-1 </td <td>2457</td> <td>ISO14184-1</td> <td>67.27</td> <td></td> <td>-0.77</td> <td></td>	2457	ISO14184-1	67.27		-0.77	
2447 ISO14184-1 75 56 0.00 2476 ISO14184-1 642 -1.20 2476 ISO14184-1 642 -1.21 2500 ISO14184-1 73.12 0.06 2500 ISO14184-1 76.62 0.78 2501 ISO14184-1 76.62 0.78 2501 ISO14184-1 74.509 0.43 2511 ISO14184-1 76.0 0.68 2511 ISO14184-1 74.30 0.54 2518 ISO14184-1 74.31 0.54 2530 ISO14184-1 74.33 0.54 2531 ISO14184-1 74.33 0.54 2531 ISO14184-1 74.33 0.54 2531 ISO14184-1 74.4 0.64 2531 ISO14184-1 74.4 0.53 2532 ISO14184-1 74.4 0.54 2533 ISO14184-1 74.8 0.60 2534 ISO14184-1 74.8 0.46 2535 ISO14184-1 74.8 0.46 2536	2462	ISO14184-1	70.2		-0.28	
2445 ISO14184-1 71.80 0.97 2446 ISO14184-1 76.97 0.66 2501 ISO14184-1 76.97 0.78 2504 ISO14184-1 76.67 0.78 2504 ISO14184-1 76.60 0.78 2504 ISO14184-1 61.9 -1.66 2504 ISO14184-1 63.75 -1.35 2514 ISO14184-1 78.0 0.68 25200 ISO14184-1 78.4 0.96 2530 ISO14184-1 78.4 0.96 2531 ISO14184-1 78.17 0.46 2530 ISO14184-1 78.4 0.96 2531 ISO14184-1 78.17 0.46 2531 ISO14184-1 78.4 0.88 2549 ISO14184-1 74.7 0.46 2549 ISO14184-1 74.7 0.46 2549 ISO14184-1 74.83 0.49 2549 ISO14184-1 74.83 0.49 2549 ISO14184-1 74.83 0.44 254	2474	ISO14184-1	75.56		0.60	
2440 ISO 14 104-1 0.4.2 2450 ISO 14 104-1 73. 12 0.6 2501 ISO 14 184-1 73. 12 0.6 2504 ISO 14 184-1 36.09 C,R(0.01) -5.92 2504 ISO 14 184-1 74.509 0.43 2514 ISO 14 184-1 74.509 0.43 2514 ISO 14 184-1 74.90 0.43 25201 ISO 14 184-1 74.90 0.63 2531 ISO 14 184-1 74.90 0.63 2541 ISO 14 184-1 74.90 0.50 2551 ISO 14 184-1 74.91 0.50 2551 ISO 14 184-1 74.93 0.58 2552 ISO 14 184-1 74.47 0.46 2582 ISO 14 184-1 74.47 0.46 2583 ISO 14 184-1 74.87 0.46 2584 ISO 14 184-1 74.85 0.49 2585 ISO 14 184-1 74.85 0.49 2586 ISO 14 184-1 74.85 0.49 2686	2475	ISO14184-1	77.80		0.97	
2430 150.14 (04-1) 76.17 0.36 2501 150.14 (04-1) 76.12 0.30 2504 150.14 (04-1) 76.12 0.30 2504 150.14 (04-1) 76.12 0.30 2504 150.14 (04-1) 61.9 -1.66 2504 150.14 (04-1) 63.75 -1.35 2519 150.14 (04-1) 74.93 0.50 2520 150.14 (04-1) 74.93 0.50 2531 150.14 (04-1) 74.93 0.50 2531 150.14 (04-1) 76.1 -0.96 2537 150.14 (04-1) 76.1 -0.96 2537 150.14 (04-1) 76.4 0.83 2537 150.14 (04-1) 76.4 0.83 2537 150.14 (04-1) 76.4 0.83 2548 150.14 (04-1) 76.4 0.84 2559 150.14 (04-1) 76.4 0.84 2548 150.14 (04-1) 76.4 0.43 2550 150.14 (04-1) 76.4 0.44 2560 150.14 (04-1) 76.3	2470	15014184-1	04.Z		-1.28	
2400 ISO148 1212 0.00 2501 ISO1484-1 76.62 0.78 2504 ISO1484-1 76.62 0.78 2506 ISO1484-1 74.509 0.43 2514 ISO1484-1 74.509 0.43 2514 ISO1484-1 76.0 0.68 2520 ISO1484-1 78.4 1.24 2549 ISO1484-1 74.93 0.50 2551 ISO1484-1 66.53 -0.87 2566 ISO1484-1 66.63 -0.87 2577 ISO1484-1 68.3 -0.60 2578 ISO1484-1 68.3 -0.60 2578 ISO1484-1 61.85 -0.41 2580 ISO1484-1 61.85 -0.41 2580 ISO1484-1 61.85 -0.41 2580 ISO1484-1 74.7 -0.44 2580 ISO1484-1 74.7 -0.44 2580 ISO1484-1 70.87 -0.17 2581 ISO1484-1 70.87 -0.17 2581	2403	13014104-1	70.0		0.00	
204 ISO 4184-1 76 62 0.78 2504 ISO 14184-1 61.9 C,R(0.01) -5.82 2511 ISO 14184-1 63.75 -1.35 2511 ISO 14184-1 76.0 0.68 2520 ISO 14184-1 79.4 1.24 2540 ISO 14184-1 79.4 1.24 2540 ISO 14184-1 66.11 -0.96 2550 ISO 14184-1 66.63 -0.87 2561 ISO 14184-1 78.4 0.08 2573 ISO 14184-1 78.4 0.08 2573 ISO 14184-1 74.7 0.46 2584 ISO 14184-1 74.7 0.46 2589 ISO 14184-1 74.7 0.46 2589 ISO 14184-1 74.7 0.46 2589 ISO 14184-1 74.33 0.48 2500 ISO 14184-1 74.83 0.41 2580 ISO 14184-1 74.83 0.48 2581 ISO 14184-1 74.7 0.46 2580 ISO 14184-1 74.83 0.41	2492		73.12		0.10	
2244 ISO14184-1 36.00 C,R(0.01) -5.32 first reported 51.56 2506 ISO14184-1 74.509 0.43 2514 ISO14184-1 76.0 0.68 2520 ISO14184-1 78.4 1.24 2549 ISO14184-1 78.4 1.24 2549 ISO14184-1 78.33 0.50 2551 ISO14184-1 66.63 -0.87 2566 ISO14184-1 66.3 -0.87 2577 2578 ISO14184-1 68.3 -0.60 2571 ISO14184-1 61.85 -0.61 2580 ISO14184-1 61.85 -0.46 2580 ISO14184-1 74.7 -0.46 2580 ISO14184-1 74.83 0.48 2580 ISO14184-1 74.83 0.48 2580 ISO14184-1 74.83 0.48 2690 ISO14184-1 76.85 -0.17 2618 ISO14	2500	ISO14184-1	76.62		0.20	
2505 ISO14184-1 74.509 -1.86 2511 ISO14184-1 74.509 -0.43 2514 ISO14184-1 76.0 -0.88 2520 ISO14184-1 79.4 1.24 2530 ISO14184-1 66.11 -0.96 2560 ISO14184-1 66.11 -0.96 2561 ISO14184-1 78.4 0.87 2560 ISO14184-1 78.4 0.87 2561 ISO14184-1 78.4 0.96 2577 ISO14184-1 78.4 0.98 2583 ISO14184-1 71.48 0.98 2584 ISO14184-1 71.48 0.98 2585 ISO14184-1 71.26 -0.11 2589 ISO14184-1 71.26 -0.11 2589 ISO14184-1 74.7 -0.46 2581 ISO14184-1 74.83 0.48 2680 ISO14184-1 74.83 0.48 2681 ISO14184-1 74.83 0.48 2681 ISO14184-1 74.83 0.48 <t< td=""><td>2504</td><td>ISO14184-1</td><td>36.09</td><td>C R(0 01)</td><td>-5.92</td><td>first reported 51 56</td></t<>	2504	ISO14184-1	36.09	C R(0 01)	-5.92	first reported 51 56
2511 ISO14184-1 74.509 0.43 2514 ISO14184-1 76.0 0.68 2520 ISO14184-1 79.4 1.24 2549 ISO14184-1 74.93 0.50 2553 ISO14184-1 66.11 -0.96 2560 ISO14184-1 66.63 -0.87 2560 ISO14184-1 66.3 -0.86 2571 ISO14184-1 66.3 -0.60 2572 ISO14184-1 67.47 0.08 2572 ISO14184-1 67.47 0.46 2589 ISO14184-1 74.7 0.46 2580 ISO14184-1 74.7 0.46 2581 ISO14184-1 74.7 0.46 2581 ISO14184-1 74.83 0.48 2581 ISO14184-1 74.83 0.48 2581 ISO14184-1 74.83 0.49 2581 ISO14184-1 78.85 -0.51 2691 ISO14184-1 78.85 0.49 2691 ISO14184-1 70.85 -0.17	2506	ISO14184-1	61.9	0,11(0.01)	-1.66	
2514 ISO14184-1 76.0 0.68 2520 ISO14184-1 79.4 1.24 2549 ISO14184-1 74.93 0.50 2535 ISO14184-1 66.11 -0.96 2560 ISO14184-1 66.63 -0.87 2561 ISO14184-1 72.4 0.08 2572 ISO14184-1 75.4 0.60 2573 ISO14184-1 74.4 0.60 2573 ISO14184-1 74.4 0.68 2589 ISO14184-1 74.7 0.46 2590 ISO14184-1 74.7 0.46 2590 ISO14184-1 74.7 0.46 2590 ISO14184-1 74.83 0.48 2605 GBT2912 68.85 -0.51 2609 ISO14184-1 67.37 -0.75 2641 ISO14184-1 70.87 -0.17 2642 ISO14184-1 70.87 -0.17 2701 ISO14184-1 70.85 -0.17 2702 ISO14184-1 70.85 0.15 2764<	2511	ISO14184-1	74.509		0.43	
2519 ISO14184-1 76.0 0.68 2520 ISO14184-1 78.4 1.24 2549 ISO14184-1 66.11 -0.96 2560 ISO14184-1 66.63 -0.87 2561 ISO14184-1 68.63 -0.87 2560 ISO14184-1 78.175 1.04 2573 ISO14184-1 78.175 1.04 2573 ISO14184-1 68.3 -0.60 2573 ISO14184-1 71.26 -0.11 2589 ISO14184-1 74.7 0.46 2580 ISO14184-1 74.7 0.46 2591 Inhouse 70.426221 -0.24 2605 GBT2912 68.85 -0.51 2618 ISO14184-1 74.83 0.48 2619 ISO14184-1 74.85 0.49 2644 ISO14184-1 75.7 -0.75 2643 ISO14184-1 70.85 -0.17 2703 ISO14184-1 73.5 0.16 2719 ISO14184-1 73.5 0.18 <td< td=""><td>2514</td><td>ISO14184-1</td><td>63.75</td><td></td><td>-1.35</td><td></td></td<>	2514	ISO14184-1	63.75		-1.35	
2520 ISO14184-1 74.3 1.24 2549 ISO14184-1 66.11 -0.96 2561 ISO14184-1 66.63 -0.87 2561 ISO14184-1 78.175 1.04 2567 ISO14184-1 72.4 0.08 2572 ISO14184-1 75.4 0.58 2582 ISO14184-1 71.26 -0.11 2580 ISO14184-1 71.26 -0.11 2580 ISO14184-1 71.26 -0.51 2580 ISO14184-1 74.36 -0.46 2590 ISO14184-1 74.35 0.46 2590 ISO14184-1 74.37 -0.75 2605 GRT2912 68.65 -0.51 2633 ISO14184-1 68.37 -0.17 2643 ISO14184-1 70.87 -0.49 2644 ISO14184-1 70.87 -0.17 2713 ISO14184-1 70.87 -0.17 2714 ISO14184-1 73.5 -0.32 2773 ISO14184-1 73.6 0.15	2519	ISO14184-1	76.0		0.68	
2549 ISO14184-1 74.93 0.50 2561 ISO14184-1 66.63 -0.96 2561 ISO14184-1 78.175 1.04 2567 2568 ISO14184-1 68.3 -0.60 2573 ISO14184-1 61.89 -1.66 2589 ISO14184-1 74.7 0.46 2591 Inhouse 70.462621 -0.24 2606 ISO14184-1 74.85 -0.46 2818 Inhouse 70.462621 -0.24 2605 GB/T2912 68.85 -0.51 2838 ISO14184-1 74.85 0.48 2841 ISO14184-1 70.455 0.49 2843 ISO14184-1 70.85 0.49 2864 ISO14184-1 70.85 -0.17 2874 ISO14184-1 70.85 -0.17 2874 ISO14184-1 70.85 -0.17 2874 ISO14184-1 73.8 0.16 2874 ISO14184-1 70.85 0.17 2874 <td< td=""><td>2520</td><td>ISO14184-1</td><td>79.4</td><td></td><td>1.24</td><td></td></td<>	2520	ISO14184-1	79.4		1.24	
2553 ISO14184-1 66.11 -0.96 2561 ISO14184-1 78.175 1.04 2567	2549	ISO14184-1	74.93		0.50	
2560 ISO14184-1 66.63 -0.87 2561 ISO14184-1 78.175 1.04 2567	2553	ISO14184-1	66.11		-0.96	
2861 ISO14184-1 72.4 0.08 2567 ISO14184-1 72.4 0.08 2572 ISO14184-1 75.4 0.58 2589 ISO14184-1 75.4 0.58 2589 ISO14184-1 71.26 -0.11 2590 ISO14184-1 71.26 -0.24 2590 ISO14184-1 74.7 0.46 2590 ISO14184-1 74.83 0.48 2616 ISO14184-1 74.83 0.44 2618 ISO14184-1 74.85 0.49 2624 ISO14184-1 50.72 R(0.01) -3.50 2644 ISO14184-1 70.87 -0.17 2676 ISO14184-1 70.855 -0.17 2671 ISO14184-1 73.0 0.18 2740 ISO14184-1 73.0 0.18 2741 ISO14184-1 70.7 -0.20 2773	2560	ISO14184-1	66.63		-0.87	
2667 2569 ISO'14184-1 72.4 0.08 2572 ISO'14184-1 68.3 -0.60 2589 ISO'14184-1 16.9 -1.66 2589 ISO'14184-1 71.26 -0.11 2590 ISO'14184-1 74.7 0.46 2591 Inhouse 70.4662621 -0.24 2605 GBT2912 68.85 -0.51 2609 ISO'14184-1 67.37 -0.75 2633 ISO'14184-1 68.97 -0.49 2644 ISO'14184-1 70.87 -0.17 2676 ISO'14184-1 70.87 -0.17 2719 ISO'14184-1 70.85 -0.17 2719 ISO'14184-1 70.85 -0.17 2719 ISO'14184-1 73.8 0.18 2740 ISO'14184-1 73.8 0.32 2773 ISO'14184-1 75.70 0.63 2805 ISO'14184-1 75.5 0.59	2561	ISO14184-1	78.175		1.04	
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2668 ISO14184-1 70.87 -0.17 2674 ISO14184-1 71.50 -0.07 2703 ISO14184-1 70.855 -0.17 2719 ISO14184-1 70.855 -0.17 2719 ISO14184-1 73 0.18 2740 ISO14184-1 73 0.18 2741 ISO14184-1 73 0.18 2741 ISO14184-1 73.85 0.32 2773	2667	ISO14184-1	68.972	, ,	-0.49	
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2678ISO14184-171.50-0.072703ISO14184-170.855-0.172712ISO14184-176.120.702719ISO14184-1730.182740ISO14184-1730.182741ISO14184-173.850.3227732789ISO14184-172.82793ISO14184-179.2901.222805ISO14184-175.50.592827ISO14184-170.01-0.312828JIS L104175.50.592827ISO14184-178.6041.112903ISO14184-176.600.282889ISO14184-176.600.952921JIS L104168.75-0.532926ISO14184-168.6-0.552926ISO14184-168.72-0.532926ISO14184-168.72-0.532950ISO14184-168.72-0.532953ISO14184-177.61.112958ISO14184-177.60.842958ISO14184-177.60.842958ISO14184-176.60.012977ISO14184-176.60.012977ISO14184-176.61.302979ISO14184-176.60.51	2674	ISO14184-1	72.8		0.15	
2703ISO14184-170.855 -0.17 2712ISO14184-176.120.702719ISO14184-1730.182740ISO14184-170.7 -0.20 2743ISO14184-170.8550.3227732789ISO14184-172.80.152793ISO14184-175.700.632805ISO14184-175.50.592827ISO14184-170.01-0.312830ISO14184-173.600.282881ISO14184-178.6041.112903ISO14184-176.6041.952921JIS L104168.71-0.532924ISO14184-168.6-0.552925ISO14184-168.6-0.532926ISO14184-175.8C0.642938ISO14184-166.6-1.112955ISO14184-176.61.112955ISO14184-176.61.112959ISO14184-176.61.112959ISO14184-177.60.842968ISO14184-177.660.012977ISO14184-176.61.302977ISO14184-177.61.302978ISO14184-177.60.51	2678	ISO14184-1	71.50		-0.07	
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2103 100 110 0.10 2793 ISO14184-1 75.70 0.63 2826 JIS L1041 75.5 0.59 2827 ISO14184-1 70.01 -0.31 2830 ISO14184-1 68.75 -0.52 2881 ISO14184-1 73.60 0.28 2889 ISO14184-1 76.60 0.28 2889 ISO14184-1 76.63 0.95 2921 JIS L1041 68.71 -0.53 2926 ISO14184-1 68.6 -0.55 2928 ISO14184-1 68.72 -0.53 2950 ISO14184-1 68.72 -0.53 2950 ISO14184-1 60.2 1.61 2953 ISO14184-1 60.2 -1.94 2958 ISO14184-1 79.60 C 1.27 2973 ISO14184-1 79.60 C 1.27 2977 ISO14184-1 76.1 0.69 2977 ISO14184-1 79.76 1.30 2980 ISO14184-1 75 0.51 <td>2780</td> <td>ISO14184-1</td> <td>72.8</td> <td></td> <td>0 15</td> <td></td>	2780	ISO14184-1	72.8		0 15	
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2826JIS L104175.50.592827ISO14184-170.01-0.312830ISO14184-168.75-0.522881ISO14184-173.600.282889ISO14184-176.6041.112903ISO14184-177.630.952924JIS L104168.71-0.532926ISO14184-168.6-0.552948ISO14184-168.72-0.532950ISO14184-168.72-0.532951ISO14184-160.2-1.942953ISO14184-177.661.112959ISO14184-177.660.642959ISO14184-177.60.842959ISO14184-177.60.692973ISO14184-176.60.012977ISO14184-176.60.012977ISO14184-177.61.302980ISO14184-176.60.51	2805	ISO14184-1	75.70		0.63	
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2903 ISO14184-1 77.63 0.95 2921 JIS L1041 68.71 -0.53 2926 ISO14184-1 68.6 -0.55 2948 ISO14184-1 68.72 -0.53 2950 ISO14184-1 75.8 C 0.64 2953 ISO14184-1 81.62 1.61 2955 ISO14184-1 60.2 -1.94 2958 ISO14184-1 78.6 1.11 2959 ISO14184-1 76.6 1.27 2968 ISO14184-1 77 0.84 2959 ISO14184-1 79.60 C 1.27 2973 ISO14184-1 71.96 0.01 2977 ISO14184-1 76.1 0.69 2979 ISO14184-1 76.1 0.69 2979 ISO14184-1 75 0.51	2889	ISO14184-1	78.604		1.11	
2921 JIS L1041 68.71 -0.53 2926 ISO14184-1 68.6 -0.55 2948 ISO14184-1 68.72 -0.53 2950 ISO14184-1 75.8 C 0.64 first reported 139.8 2953 ISO14184-1 81.62 1.61 2955 ISO14184-1 60.2 -1.94 2958 ISO14184-1 78.6 1.11 2959 ISO14184-1 77 0.84 2968 ISO14184-1 79.60 C 1.27 first reported 46.82 2973 ISO14184-1 71.96 0.01 0.01 2977 ISO14184-1 76.1 0.69 0.2979 2979 ISO14184-1 75 0.51	2903	ISO14184-1	77.63		0.95	
2926 ISO14184-1 68.6 -0.55 2948 ISO14184-1 68.72 -0.53 2950 ISO14184-1 75.8 C 0.64 first reported 139.8 2953 ISO14184-1 81.62 1.61 2955 ISO14184-1 60.2 -1.94 2958 ISO14184-1 78.6 1.11 2959 ISO14184-1 77 0.84 2958 ISO14184-1 79.60 C 1.27 2968 ISO14184-1 71.96 0.01 2973 ISO14184-1 70.60 C 1.27 2974 ISO14184-1 79.60 C 1.27 2977 ISO14184-1 79.60 0.01 2977 ISO14184-1 79.76 1.30 2980 ISO14184-1 79.76 1.30	2921	JIS L1041	68.71		-0.53	
2948 ISO14184-1 68.72 -0.53 2950 ISO14184-1 75.8 C 0.64 first reported 139.8 2953 ISO14184-1 81.62 1.61 2955 ISO14184-1 60.2 -1.94 2958 ISO14184-1 78.6 1.11 2959 ISO14184-1 77 0.84 2968 ISO14184-1 79.60 C 1.27 2973 ISO14184-1 71.96 0.01 2977 ISO14184-1 76.1 0.69 2979 ISO14184-1 76.5 1.30 2980 ISO14184-1 75 0.51	2926	ISO14184-1	68.6		-0.55	
2950 ISO14184-1 75.8 C 0.64 first reported 139.8 2953 ISO14184-1 81.62 1.61 2955 ISO14184-1 60.2 -1.94 2958 ISO14184-1 78.6 1.11 2959 ISO14184-1 77 0.84 2968 ISO14184-1 79.60 C 1.27 first reported 46.82 2973 ISO14184-1 71.96 0.01 0.01 2977 ISO14184-1 76.1 0.69 2979 ISO14184-1 79.76 1.30 2980 ISO14184-1 75 0.51	2948	ISO14184-1	68.72		-0.53	
2953 ISU14184-1 81.62 1.61 2955 ISO14184-1 60.2 -1.94 2958 ISO14184-1 78.6 1.11 2959 ISO14184-1 77 0.84 2968 ISO14184-1 79.60 C 1.27 2973 ISO14184-1 71.96 0.01 2977 ISO14184-1 76.1 0.69 2979 ISO14184-1 79.76 1.30 2980 ISO14184-1 75 0.51	2950	ISO14184-1	/5.8	С	0.64	tirst reported 139.8
2955 ISO14184-1 60.2 -1.94 2958 ISO14184-1 78.6 1.11 2959 ISO14184-1 77 0.84 2968 ISO14184-1 79.60 C 1.27 first reported 46.82 2973 ISO14184-1 71.96 0.01 2977 ISO14184-1 76.1 0.69 2979 ISO14184-1 79.76 1.30 2980 ISO14184-1 75 0.51	2953	15014184-1	81.62		1.61	
2950 ISO14184-1 78.0 1.11 2959 ISO14184-1 77 0.84 2968 ISO14184-1 79.60 C 1.27 first reported 46.82 2973 ISO14184-1 71.96 0.01 2977 ISO14184-1 76.1 0.69 2979 ISO14184-1 79.76 1.30 2980 ISO14184-1 75 0.51	2955	15014184-1	00.2		-1.94	
2939 ISO14164-1 77 0.64 2968 ISO14184-1 79.60 C 1.27 first reported 46.82 2973 ISO14184-1 71.96 0.01 2977 ISO14184-1 76.1 0.69 2979 ISO14184-1 79.76 1.30 2980 ISO14184-1 75 0.51	2958	10014104-1	(0.0 77		1.11	
2900 ISO 14104-1 79.00 C 1.27 Inst reported 40.82 2973 ISO14184-1 71.96 0.01 2977 ISO14184-1 76.1 0.69 2979 ISO14184-1 79.76 1.30 2980 ISO14184-1 75 0.51	2909	10014104-1	70.60	C	1.07	first reported 46.82
2977 ISO14184-1 76.1 0.69 2979 ISO14184-1 79.76 1.30 2980 ISO14184-1 75 0.51	2900 2072	ISO14104-1	79.00	C	1.2 <i>1</i> 0.01	III SI TEPUILEU 40.02
2979 ISO14184-1 79.76 1.30 2980 ISO14184-1 75 0.51	2913	ISO14184-1	76.1		0.01	
2980 ISO14184-1 75 0.51	2979	ISO14184-1	79 76		1.30	
	2980	ISO14184-1	75		0.51	

lab	method	value	mark	z(targ)	remarks
2982	ISO14184-1	81.57		1.60	
2984	ISO14184-1	79.90		1.32	
3100	GB/T2912	67.8		-0.68	
3110	ISO14184-1	69.9		-0.33	
3116	ISO14184-1	70.42		-0.25	
3118	ISO14184-1	62.46		-1.56	
3134	ISO14184-1	63.5		-1.39	
3146	ISO14184-1	75.51		0.60	
3153	ISO14184-1	68.13		-0.63	
3154	ISO14184-1	60.98		-1.81	
3160	ISO14184-1	77 57		0.94	
3172	ISO14184-1	76.479		0.76	
3176	ISO14184-1	76.50		0.76	
3182	ISO14184-1	65.1		-1 13	
3185	ISO14184-1	70.38		-0.25	
3190	ISO14184-1	72.32		0.07	
3195	ISO14184-1	56.5		-2 55	
3197	ISO14184-1	64 1		-1 29	
3200	ISO14184-1	73 91		0.33	
3207		70		-0.32	
3209	GB/T2912	68 53		-0.56	
3210	In house	70.42		-0.25	
3212	ISO14184-1	85.98		2.33	
3214	ISO14184-1	69.46		-0.41	
3216	ISO14184-1	69.68		-0.37	
3218	ISO14184-1	71.32		-0.10	
3222	ISO14184-1	71.8		-0.02	
3225	ISO14184-1	73.5		0.26	
3228	ISO14184-1	73.3		0.20	
3230	ISO14184-1	80 552	C	1 43	first reported 94 546
3237	ISO14184-1	67.3	0	-0.76	
3246	ISO14184-1	74 5		0.43	
3248	ISO14184-1	70		-0.32	
8005	JIS I 1041	70 22		-0.28	
8008	ITS ST1 6	69.7		-0.20	
0000	010 011.0	00.7		-0.07	
	normality	ОК			
	n	179			
	outliers	4			
	mean (n)	71 909			
	st dev (n)	4 8641	RSD=7%		
	R(calc.)	13 620			
	st dev (Horwitz)	6 0454			
	R(Horwitz)	16 927			
	st.dev.(Horwitz) R(Horwitz)	6.0454 16.927			





Determination of Released Formaldehyde on sample #21755; results in mg/kg

lah	method	valuo	mark	z(tara)	romarke
110		85.34	HIGIN		Temarka
210	10014104-2			0.90	
210		not analyzed			
362					
551		Not tested			
622	15014184-2	66 12		_1 08	
623	ISO14184-2	55.45	R(0.05)	-3.60	
023 840	15014104-2	74.4	R(0.05)	-3.00	
040 9/1	15014184-2	74.4		-0.71	
2102	13014104-2	73.1		-0.91	
2102	1901/18/-2	85.2		0.04	
2113	15014184.2	77 17		0.04	
2132	15014184-2	60.008		-0.29	
2133	13014104-2	03.030		-1.52	
2137					
2140	1501/18/ 2	71.50		1 15	
2109	15014104-2	71.30		-1.15	
2100	150 14 164-2	11.15		-0.20	
2170					
2102					
2104	10011101 0			0.50	
2201	15014184-2	82.70		0.50	
2213	15014184-2	102.1	R(0.05)	3.52	
2218					
2220					
2223					
2225					
2226		 N			
2232	10011101 0	Not applicable		4 00	
2236	ISO14184-2	70.65		-1.28	
2238	ISO14184-2	82.81		0.57	
2247	10044404 0				
2250	ISO14184-2	81.55		0.38	
2255	ISO14184-2	not determined			
2256					
2264					
2265					
2269	100///0/0				
2275	ISO14184-2	80.94		0.29	
2279		not analyzed			
2284		NA			
2289	ISO14184-2	81.25		0.33	
2290					
2293					
2295	ISO14184-2	85.1		0.92	
2297	ISO14184-2	82.9		0.59	
2310	ISO14184-2	77.3		-0.27	
2311	ISO14184-2	73.883		-0.79	
2313	ISO14184-2	73.34		-0.87	
2314	ISO14184-2	73.22		-0.89	
2330	ISO14184-2	75.74		-0.51	
2347	ISO14184-2	80		0.14	
2350	AATCC112	78.57		-0.08	
2351	ISO14184-2	85		0.91	
2356	ISO14184-2	81.8		0.42	
2358	ISO14184-2	76.67		-0.37	
2360	ISO14184-2	84.2		0.78	
2363	ISO14184-2	79.3		0.04	
2364	ISO14184-2	84.0		0.75	
2365	ISO14184-2	80.04		0.15	
2366	ISO14184-2	81		0.30	
2367	ISO14184-2	85.1		0.92	
2370	ISO14184-2	76.18		-0.44	
2372	ISO14184-2	79.1		0.01	
2373	ISO14184-2	85.8		1.03	
2375	ISO14184-2	75		-0.62	
2378	ISO14184-2	86.0		1.06	
2379	ISO14184-2	83.72		0.71	
2380	ISO14184-2	70.0		-1.38	
2381	ISO14184-2	76.80		-0.35	
2382	ISO14184-2	out of capacity			
2383	GB/T2912	86.9		1.20	
2385					
2390	ISO14184-2	78.72		-0.05	
2401					

lab	method	value	mark	z(targ)	remarks
2403					
2404					
2406	ISO14184-2	80.22		0.18	
2425	ISO14184-2	76.0		-0.47	
2426					
2429	ISO14184-2	81.03		0.30	
2433					
2442	ISO14184-2	78.20		-0.13	
2449	ISO14184-2	77.9		-0.18	
2453					
2454	ISO14184-2	81.31		0.34	
2456					
2457	ISO14184-2	84.44		0.82	
2462	ISO14184-2	74.1		-0.76	
2474	ISO14184-2	68.80		-1.57	
2475					
2476					
2483					
2492					
2500					
2501					
2504	ISO14184-2	59.57		-2.97	
2506	ISO14184-2	91.66		1.92	
2511					
2514					
2519					
2520					
2549	ISO14184-2	85.05		0.91	
2553	ISO14184-2	73.59		-0.84	
2560	ISO14184-2	72.20		-1.05	
2561					
2567					
2569					
2012					
2010					
2502					
2509					
2591					
2605	ISO14184-2	79 12		0.01	
2609	100141042				
2618					
2638	ISO14184-2	82 23		0 48	
2643	ISO14184-2	88.36		1.42	
2644					
2667					
2668	ISO14184-2	74.66		-0.67	
2674					
2678					
2703					
2712					
2719					
2740					
2741			-		
2743	ISO14184-2	97.6	С	2.83	first reported 195.10
2/73					
2789					
2/93	10014194 0				
2805	15014184-2	11.22		-0.28	
2020 2027	1501/18/ 2	 75 10		.0.60	
2021	100 14 104-2			-0.00	
2030					
2001					
2000					
2921					
2926					
2948	ISO14184-2	66.75		-1.88	
2950	-				
2953					
2955	ISO14184-2	Not performed			
2958	ISO14184-2 proc. annex B	56.7	R(0.05)	-3.41	
2959	ISO14184-2	85		0.91	
2968	ISO14184-2	93.52		2.21	
2973					
2977		not analyzed			
2979					
2980	15014184-2	80		0.14	

lab	method	value	mark	z(targ)	remarks
2982	ISO14184-2	80.62		0.24	
2984					
3100	GB/T2912	78.6		-0.07	
3110					
3116					
3118					
3134	ISO14184-2	73.1		-0.91	
3146					
3153					
3154					
3160					
3172					
3176	ISO14184-2	83.44		0.67	
3182	ISO14184-2	74.9		-0.64	
3185	ISO14184-2	79.94		0.13	
3190	ISO14184-2	81.55		0.38	
3195					
3197	ISO14184-2	75.0		-0.62	
3200					
3207					
3209	AATCC112	75.92		-0.48	
3210					
3212					
3214					
3216	ISO14184-2	not determined			
3218					
3222					
3225					
3228					
3230	ISO14184-2	89.254		1.56	
3237					
3246					
3248	ISO14184-2	75		-0.62	
8005					
8008					
	u a una a lite e				
	normality				
	[] outliere	79			
	outliers	3 70.060			
	mean (n)	79.002			
	st.dev. (n)	6.3058	K2D=8%		
	K(calc.)	17.656			
	st.dev.(Horwitz)	6.5526			
	R(Horwitz)	18.347			





Determination of Free Formaldehyde on sample #21756; results in mg/kg

lah	method	valuo	mark	z(tara)	romarks
110		70.10	IIIdi K	2(lary)	Telliaiks
210	15014184-1	70.19		-0.24	
210	13014184-1	75 1		-0.74	
309	15014184 1	10.1		0.37	
502	15014184-1	70.01		-0.37	
001	15014184-1	70.91		-0.12	
622	15014104-1	01.47		-1.09	
023	15014164-1	09.2		-0.41	
040	15014104-1	72.1		0.00	
041	15014164-1	/1./		0.01	
2102	10014194 1	67.4		0.70	
2110	15014164-1	07.4		-0.70	
2132	15014104-1	09.40		-0.30	
2135	15014184-1	79.83		1.30	
2137	15014184-1	01.02		-1.70	
2140	15014164-1	72.01		0.00	
2109	15014164-1	73.43		0.30	
2100	15014104-1	09.09		-0.34	
2170	15014164-1	00.40		1.47	
2102		03.4		-1.37	
2104	15014164-1	72.0		0.00	
2201	15014104-1	72.00		0.07	
2213	15014164-1	02.1		0.10	
2210		70.0		-0.10	
2220		70.0		-0.27	
2223	15014164-1	67.02		-0.95	
2220	15014184-1	07.03	C	-0.77	first reported 99.02
2220	15014164-1	00.33	C	-0.55	liist reported 66.92
2232	15014184-1	72 10		-0.07	
2230	15014164-1	73.10		0.25	
2230	15014164-1	12.31		0.15	
2247	15014184-1	62.60		-0.97	
2250	15014164-1	67.0		-1.32	
2200	15014184-1	70.24		-0.77	
2200	15014164-1	70.34		-0.22	
2204		59.99 74 94		-1.93	
2200	15014164-1	14.24		0.43	
2209	15014164-1	00.40		-0.00	
2270	15014164-1	70.00		-0.10	
2219	15014184-1	72.2		-0.30	
2204	15014184-1	73.Z 68.05		0.20	
2209	15014184-1	00.90		-0.45	
2290	15014184-1	74 74		-0.92	
2293	15014164-1	74.74		1.00	
2295	15014164-1	70.2		1.09	
2297	15014164-1	72.1		0.00	
2010	15014184-1	70.440		1 20	
2313	ISO14184-1	75.80		0.60	
2313	15014184 1	77.10		0.03	
2314	ISO14184-1	60.81		-0.30	
2330	GR/T2912	71		_0.00	
2350	ISO14184-1	72 10		0.11	
2351	ISO14184-1	75		0.56	
2356	ISO14184-1	72 6		0.00	
2358	ISO14184-1	72.95		0.10	
2360	ISO14184-1	70 7		_0.16	
2363	ISO14184-1	70.2		-0.24	
2364	ISO14184-1	75.0		0.24	
2365	ISO14184-1	70.96		-0.11	
2366	ISO14184-1	72		0.06	
2367	ISO14184-1	75.0		0.56	
2370	ISO14184-1	72 70		0.00	
2372	ISO14184-1	71.2		-0.07	
2373	ISO14184-1	75.8		0 69	
2375	ISO14184-1	77		0.89	
2378	ISO14184-1	76.0		0.72	
2370	ISO14184-1	81 19		1 58	
2380	ISO14184-1	88.9		2 86	
2381	ISO14184-1	71.10		-0.09	
2382	ISO14184-1	73.0		0.22	
2383	ISO14184-1	70.6		-0 17	
2385	ISO14184-1	79		1 22	
2390	ISO14184-1	69.88		-0.29	
2401	ISO14184-1	68		-0.61	

lab	method	value	mark z	(targ)	remarks
2403	ISO14184-1	72.20		0.09	
2404	ISO14184-1	68.0		-0.61	
2406	ISO14184-1	69.95		-0.28	
2425	ISO14184-1	75.09		0.57	
2426	ISO14184-1	77.1		0.90	
2429	ISO14184-1	69.97		-0.28	
2433	ISO14184-1	75.77		0.68	
2442	ISO14184-1	72.29		0.11	
2449	ISO14184-1	74.2		0.42	
2453	ISO14184-1	64.60		-1.17	
2454	ISO14184-1	73.42		0.29	
2456	ISO14184-1	70.12		-0.25	
2457	ISO14184-1	67.21		-0.74	
2462	ISO14184-1	67.8		-0.64	
2474	ISO14184-1	67.66		-0.66	
2475	ISO14184-1	72.79		0.19	
2476	ISO14184-1	66.8		-0.80	
2483	ISO14184-1	75.0		0.56	
2492	In house	74.29		0.44	
2500	ISO14184-1	72.41		0.13	
2501	ISO14184-1	72.86		0.20	
2504	ISO14184-1	75.55		0.65	
2506	15014184-1	68.7		-0.49	
2511	ISO14184-1	72.938		0.21	
2514	15014184-1	69.66		-0.33	
2519	15014184-1	74.4		0.46	
2520	15014184-1	81.22		1.59	
2549	15014184-1	77.54		0.98	
2003	15014184-1	04.18		-1.24	
2560	15014184-1	74.10		0.41	
2501	15014184-1	75.15		0.58	
2507	18014194 1	77.6		0.00	
2509	15014104-1	77.0		0.99	
2572	ISO14184-1	74.2		0.10	
2582	ISO14184-1	60.02		-0.20	
2580	ISO14184-1	70.05		-0.23	
2500	ISO14184-1	73.44		0.20	
2501	In house	67 2066/0		-0.72	
2605	GB/T2012	69 00		-0.72	
2600	ISO14184-1	75.02		0.71	
2003	10014104-1	15.52		0.71	
2638	ISO14184-1	70.34		-0.22	
2643	ISO14184-1	73.13		0.22	
2644	ISO14184-1	72.66		0.23	
2667	ISO14184-1	69 231		-0.40	
2668	ISO14184-1	68 72		-0.49	
2674	ISO14184-1	72.2		0.09	
2678	ISO14184-1	70.10		-0.26	
2703	ISO14184-1	65.85		-0.96	
2712	ISO14184-1	71.44		-0.03	
2719	ISO14184-1	70		-0.27	
2740	ISO14184-1	69		-0.44	
2741	ISO14184-1	73.8		0.36	
2743	ISO14184-1	74.70		0.51	
2773					
2789	ISO14184-1	72.6		0.16	
2793	ISO14184-1	79.35	С	1.28	first reported 45.483
2805	ISO14184-1	75.41		0.62	
2826	JIS L1041	73.4		0.29	
2827	ISO14184-1	76.81		0.86	
2830	ISO14184-1	71.25		-0.07	
2881	ISO14184-1	74.80		0.52	
2889	ISO14184-1	77.635		0.99	
2903	ISO14184-1	69.11		-0.42	
2921	JIS L1041	69.38		-0.38	
2926	ISO14184-1	67.6		-0.67	
2948	ISO14184-1	72.58		0.15	
2950	ISO14184-1	87.6	С	2.65	first reported 153.5
2953	ISO14184-1	77.89		1.04	
2955	ISO14184-1	65.3		-1.05	
2958	ISO14184-1	81.1		1.57	
2959	ISO14184-1	71	-	-0.11	
2968	ISO14184-1	84.85	C	2.19	first reported 49.91
2973	ISO14184-1	34.95	C,R(0.01)	-6.09	tirst reported 45.37
2977	ISO14184-1	74.1		0.41	
2979	ISO14184-1	80.78		1.52	
2980	ISO14184-1	80		1.39	

lab	method	value	mark	z(targ)	remarks
2982	ISO14184-1	81.21		1.59	
2984	ISO14184-1	47.86	R(0.01)	-3.95	
3100	GB/T2912	66.6	. ,	-0.84	
3110	ISO14184-1	70.4		-0.21	
3116	ISO14184-1	71.52		-0.02	
3118	ISO14184-1	62.03		-1.60	
3134	ISO14184-1	59.03		-2.09	
3146	ISO14184-1	72.13		0.08	
3153	ISO14184-1	68.95		-0.45	
3154	ISO14184-1	61.61		-1.67	
3160	ISO14184-1	71.53		-0.02	
3172	ISO14184-1	69.183		-0.41	
3176	ISO14184-1	72.0		0.06	
3182	ISO14184-1	68.9		-0.46	
3185	ISO14184-1	71.16		-0.08	
3190	ISO14184-1	69.44		-0.37	
3195	ISO14184-1	59.1		-2.08	
3197	ISO14184-1	67.1		-0.75	
3200	ISO14184-1	72.11		0.08	
3207		72		0.06	
3209	GB/T2912	69.42		-0.37	
3210	In house	62.20		-1.57	
3212	ISO14184-1	65.45	С	-1.03	first reported 3.65
3214	ISO14184-1	65.40		-1.04	
3216	ISO14184-1	58.89		-2.12	
3218	ISO14184-1	68.99		-0.44	
3222	ISO14184-1	70.3		-0.22	
3225	ISO14184-1	73.7		0.34	
3228	ISO14184-1	71.7		0.01	
3230	ISO14184-1	79.167	С	1.25	first reported 101.973
3237	ISO14184-1	65.3		-1.05	
3246	ISO14184-1	76.5		0.81	
3248	ISO14184-1	70		-0.27	
8005	JIS L1041	71.92		0.05	
8008	JTS ST1.6	71.4		-0.04	
	normality	suspect			
	n	181			
	outliers	2			
	mean (n)	71.647			
	st.dev. (n)	5.0258	RSD=7%		
	R(calc.)	14.072			
	st.dev.(Horwitz)	6.0267			
	R(Horwitz)	16.875			





Determination of Released Formaldehyde on sample #21756; results in mg/kg

				<i>(1</i>)	-
lab	method	value	mark	z(targ)	remarks
110	ISO14184-2	113.2		-0.91	
210					
330		Non analysá			
339		Non analyse			
362					
551		Not tested			
622	ISO14184-2	126.07		0 46	
6022	10014104-2	120.07 00 F		0.40	
623	15014184-2	99.5		-2.35	
840	ISO14184-2	112.0		-1.03	
841	ISO14184-2	110.9		-1.15	
2102					
2102	10044404.0	445.0		0.05	
2115	15014184-2	115.0		-0.65	
2132	ISO14184-2	110.7		-1.17	
2135	ISO14184-2	118.28		-0.37	
2127					
2137					
2140					
2159	ISO14184-2	112.50		-0.98	
2165	ISO14184-2	123 59		0 19	
2170				00	
2170					
2182					
2184					
2201	ISO14184-2	124 24		0.26	
2213	ISO14184-2	155 3		3 55	
2210	10014104-2	100.0		0.00	
2218					
2220					
2223					
2225					
2220					
2220					
2232		Not applicable			
2236	ISO14184-2	98.60		-2.45	
2238	ISO14184_2	123 1/		0.15	
2230	10014104-2	123.14		0.15	
2247					
2250	ISO14184-2	117.37		-0.46	
2255	ISO14184-2	not determined			
2256					
2250					
2264					
2265					
2269					
2275	15014184-2	123 12		0 14	
2270	10014104-2	not analyzed		0.14	
2219		not analyzed			
2284		NA			
2289	ISO14184-2	120.23		-0.16	
2290					
2200					
2293	100111010				
2295	ISO14184-2	130		0.87	
2297	ISO14184-2	122.5		0.08	
2310	ISO14184-2	120		-0 19	
2211	100111012	100 007		0.10	
2311	13014104-2	122.027		0.03	
2313	ISO14184-2	121.2		-0.06	
2314	ISO14184-2	111.2		-1.12	
2330	ISO14184-2	119 22		-0 27	
22/7	GB/T2012	100		0.02	
2047	00/12912	122		0.02	
2350	AATUUTIZ	CU1.05		-1.56	
2351	ISO14184-2	120		-0.19	
2356	ISO14184-2	124.0		0.24	
2358	1501/18/-2	117 50		-0.45	
2000		117.00		-0.40	
2360	15014184-2	117.1		-0.49	
2363	ISO14184-2	122.2		0.05	
2364	ISO14184-2	126.0		0.45	
2365	ISO14184-2	123 87		0.22	
2000		100		0.40	
2300	13014104-2	123		0.13	
2367	ISO14184-2	123.4		0.17	
2370	ISO14184-2	114.18		-0.80	
2372	ISO14184-2	120		-0 19	
2072	1901/18/ 2	100 7		0.10	
23/3	10014104-2	122.1		0.10	
2375	15014184-2	115		-0.72	
2378	ISO14184-2	123.0		0.13	
2370	ISO14184-2	121 95		0.02	
2200	1901/18/-2	1/8 7		2.02	
2300	10014104-2	140.7		2.00	
2381	15014184-2	133.58		1.25	
2382	ISO14184-2	out of capacity			
2383	ISO14184-2	115.6		-0.65	
2385					
2000	10011101 0	100.44		~	
2390	13014184-2	120.41		-0.14	
2401					

lab	method	value	mark	z(targ)	remarks
2403					
2404					
2406	ISO14184-2	122.61		0.09	
2425	15014184-2	130.0		0.87	
2420	ISO14184-2	123 46		0.18	
2433					
2442	ISO14184-2	141.90		2.13	
2449	ISO14184-2	110.7		-1.17	
2453	100111010				
2454	ISO14184-2	116.03		-0.61	
2450	15014184-2	120.88		-0.00	
2462	ISO14184-2	115.3		-0.68	
2474	ISO14184-2	108.56		-1.40	
2475					
2476					
2483					
2492					
2500					
2504	ISO14184-2	128.03		0.66	
2506	ISO14184-2	143.18		2.26	
2511					
2514					
2519					
2520	ISO14184-2	130.36		0.91	
2553	ISO14184-2	105.64		-1.71	
2560	ISO14184-2	126.20		0.47	
2561					
2567					
2569					
2573					
2582					
2589					
2590					
2591	15014184-2			-0.68	
2609	10014104-2			-0.00	
2618					
2638	ISO14184-2	119.85		-0.20	
2643	ISO14184-2	140.26		1.96	
2644					
2668	ISO14184-2	129.55		0.82	
2674					
2678					
2703					
2712					
2740					
2741					
2743	ISO14184-2	145.5	С	2.51	first reported 291.05
2773					
2709					
2805	ISO14184-2	128.39		0.70	
2826					
2827	ISO14184-2	127.01		0.55	
2830					
2881					
2009					
2921					
2926					
2948	ISO14184-2	115.35		-0.68	
2950					
2953 2955	ISO14184-2	 Not performed			
2958	ISO14184-2 proc. annex R	58.3	R(0.01)	-6.71	
2959	ISO14184-2	123	· · /	0.13	
2968	ISO14184-2	86.28	С	-3.75	first reported 50.75
2973					
2977 2979		not analyzed			
2980			W		test result withdrawn, reported 80

lab	method	value	mark	z(targ)	remarks
2982	ISO14184-2	146.31		2.60	
2984					
3100	GB/T2912	117.2		-0.48	
3110					
3116					
3118					
3134	ISO14184-2	124 9		0.33	
3146					
3153					
3154					
3160					
3172					
3176	15014184-2	140.25		1 95	
3182	ISO14184-2	135 4		1 44	
3185	ISO14184-2	117 16		_0 /0	
3100	15014184 2	102.24		-0.43	
3190	13014104-2	123.34		0.17	
2107	15014184 2	115.0		0.62	
3200	13014104-2	115.9		-0.02	
2200					
3207	AATCC112	112 21		1 01	
3209	AATCOTIZ	112.21		-1.01	
3210					
3212					
3214	1501/18/ 2	not dotorminod			
3210	13014104-2	not determined			
3272					
3222					
3220					
3220	15014184-2	171 340	C R(0.01)	5 24	first reported 180 613
3230	13014104-2	171.540	0,11(0.01)	5.24	list reported 103.015
3237					
3240	15014184 2	80	C P(0.05)	4 4 2	first reported 72
9005	13014104-2	00	0,1(0.03)	-4.42	list reported 72
8003					
0000					
	normality	suspect			
	n	78			
	outliers	3			
	mean (n)	121 767			
	r d d v (n)	11 1010	RSD-0%		
	P(colc)	21 227	1.30-370		
	st dov (Honwitz)	0 1569			
	P(Honwitz)	26 470			
	mean (n) st.dev. (n) R(calc.) st.dev.(Horwitz) R(Horwitz)	5 121.767 11.1919 31.337 9.4568 26.479	RSD=9%		





APPENDIX 2 Analytical details

lab	ISO/IEC 17025 accredited	Sample Intake Free Formaldehyde (grams)	Sample Intake Released Formaldehyde (grams)	Dimedone confirmation test	Dimedone confirmation done because of
110	Vaa	1 gram	1 arom	No	the sample cannot hang freely as it is cut. we do
210	Yes	i gram	i gram	NO	
210	Yes				
339					
362	Yes	1		NO	
551	Yes	1	<u>.</u>	Yes	
622	NO	0.5 gram	0.5 gram	Yes	
623	Yes	1	1	Yes	
840	Yes	0.5	1	NO	Dimedone confirmation for only sample #21756
841	Yes	1 grams	1 grams	Yes	Free Formaldehyde (ISO 14184-1): extracted solution have color
2102					
2115	Yes	1 g	1 g	Yes	there is lose color
2132	Yes	1 gram	1 gram	Yes	limit.
2135	Yes	1	1	No	
2137	Yes	1		No	
2146	Yes	1,5 g	1.0	Yes	
2159	Yes	1,0 gram	1,0 gram	Yes	N/A
2105	Yes	1.0 gram	Sample not enough to	No	
2182					
2184	Yes	1g		No	
2201	Yes	1.00g	1.00g	Yes	To confirm absorption is due to formaldehyde
2213	No	1 gm	1 gm	No	
2218	No	0.5g		Yes	
2220	Yes	2.5068g #21755 and 2.5120g #21756		Yes	to confirm the actual presence of formaldehyde within the sample.
2223	Yes	1 g		No	
2225	Yes	5g	No	Yes	some absorption of sample #21756 not be due to formaldehyde
2226	Yes	1.0 gr		No	
2232	Yes	1		Yes	Dimedone is used to confirm the actual presence of formaldehyde within a sample
2236	Vec	10	10	Vec	It is our routine practice to perform dimedone
2238	Yes	#21755: one 1.0070g,another 1.0062g #21756: one 1.0073g,another 0.9938g	#21755: one 1.0078g,another 1.0069g #21756: one 1.0026g,another 1.0069g	No	
2247	Yes	1cm approx	_	No	Release of Formaldehyde not conducted due to
2250	Yes	0.5	1	No	
2255	Yes		1.0	Yes	
2256	Yes	1 0017 a & 1 0025 a		Yes	If the calculated absorbance greater than the reporting limit,carry out a confirmation test with dimedone
2264	Yes	2.5 g	-	Yes	
2265	Yes	2,5		Yes	
2269	Yes	1 gram		Yes	If there is a doubt that the absorption may not be due to formaldehyde but for example to an extracted coloring agent, carry out a confirmation test with dimedone.
2275	Yes	1.0000g	1.0000g	Yes	
2279	Yes	2.5 gram	NA	Yes	color agent was found in the sample solution
2284	Yes	21755:1.002g; 21756:1.010g	NA	No	
2289	Yes	1gram	1gram	No	
2290	Yes				
2293	Yes	1.0		No	
2295	Yes	1 gram	1 gram	No	
2297	Yes	1g	1g	No	

lab	ISO/IEC 17025 accredited	Sample Intake Free Formaldehyde (grams)	Sample Intake Released Formaldehyde (grams)	Dimedone confirmation test	Dimedone confirmation done because of
2310	Yes	1g	1g	No	
2311	Yes	1	1	Yes	
2313	Yes	1.0	1.0	No	
2314	Yes	1.0	0.5	No	
2330	Yes	1 gram	1 gram	Yes	to confirm the result of Formaldehyde
2347	Yes	0.5g	1g	No	
2350	Yes	1 g	1 g	No	N/A
2351	Yes	1g	1g	No	
2356	Yes	21755#: 1.0002g / 1.0001g 21756#: 1.0001g / 1.0003g	21755#: 1.0002g / 1.0001g 21756#: 1.0002g / 1.0003g	Yes	21755#:NA 21756#:The sample faded slightly.
2360	Yes	#21755: 1.0034g #21756: 1.0036g	#21755: 1.0063g #21756: 1.0013g	Yes	There is doubt that the absorption may not be due to formaldehyde but, for example, to an extracted colouring agent, carry out a confirmation test with dimedone, so we cofirm with dimedone.
2363	Yes	1g	0.5g	No	
2364	Yes	#21755 Free Form. :1.0001g/1.0002g #21756 Free Form.:1.0001g/1.0002g	#21755 Released Form.:1.0001g/1.0000g #21756 Released Form. :1.0001g/1.0002g	Yes	according to our internal SOP, this is the mandatory requirement.
2365	Yes	0.5g	0.5g	No	
2366	Yes	1g #21755 1 0012-	1g #21755 1 0024=	NO	
2267	Voc	#21755 1.0013g #21756 1.0014g	#21755 1.0024g #21756 1.0023g	Voc	
2370	Ves	1 a	<u>#21750 1.00259</u>	Ves	dimedone confirmation test Exclude other compounds from interfering with color development
2372	Yes	1g	1g 1g	Yes	
2373	Yes	1g 0.5	<u>1g</u>	Yes	In the process of water extraction, the dye of the test fabric is transferred to the water extraction solution.
2378	Ves	10	10	No	
2370	Ves	1 g	1g	Vec	The sample is more than LOO
2380	Ves	10	1 g 1 0	Ves	
2381	Yes	1.0	1.0	No	
2382	Yes	10	/	No	1
2002	100	-9	,	110	because the color change may caused by sample
2383	Yes	1g	1g	Yes	color fading
2385	Yes	1		No	
2390	Yes	1 gram	1gram	Yes	Light turquoise colour found in sample 21756 in ISO 14184-1
2401	Yes	2 grams	Not applicable	No	
2404	Yes	2 grainio 2a		No	
2704	100	1 - 3			There are discoloration in the sample solution of
2406	No	0.5 gram	0.5 gram	Yes	Sample #21756
2425	Yes	1.0 g	1.0 g	No	
2426	Yes	1			
2429	Yes	1	1	No	
2433	Yes	1 gram per trial.		Yes	to confirm the presence of formaldehyde.
					since extracted solution may contain coloring
2442	Yes	1.0058g	1.0022g	Yes	agent.
2449	Yes	1 gram	1 gram	Yes	
2453	No	±1.5g		No	
2454	Yes	1.0000g	1.0000g	Yes	
<u>2456</u> 2457	Yes Yes	All quanitty shipped	1 gram	Yes No	For detailed explanation for each sample look at comments field. Dimedone test was performed anyway, just to be in no doubt.
2462	Yes	0.5064	0.5047	No	
2474	Yes	1 gram	1 gram	No	
2475	Yes	1			
2476		1 (one)	NA		-
2483	Yes	1.00		No	
2492	Yes	2.5		No	
2500	Yes	1.0003g		Yes	

lab	ISO/IEC 17025 accredited	Sample Intake Free Formaldehyde (grams)	Sample Intake Released Formaldehyde (grams)	Dimedone confirmation test	Dimedone confirmation done because of
2501	Yes	1g		No	
2504	Yes	1 gram	1 gram	No	NA
					Sample #21756: there was discoloration in the
2506	Yes	1g	1g	Yes	extracting solution.
2511					
0544	Mara	21755=1.003		Maria	
2514	Yes	21/50=1.005		Yes	Descuse of the colored extract
2519	NO	1 1gram		Yes	
2549	Yes	1 grain	1 am	No	
2553	Yes	1	1	Yes	reporting limit exceeded
2560	Yes	1 0 gm	10 gm	No	
2561	Yes	2.5	n/a	No	
2567					
2569	No	1 gm			
2572	Yes				
2573	Yes	1g		No	
		21755-1.0018g 21756-			
2582	Yes	1.0012g		Yes	
2589	Yes	1g	NA	No	
2590	Yes	1g	1g	No	
2591	Yes	2.5		No	
2605	Yes	4g	4g	Yes	
2609	Yes	1.00		NO	
2618		1 am	1 ano		Colour blood observed
2030	NO	1 gm	1 gm	No	
2043	res	ig	1 g		we always carry out confimration test in case of
2644	Yes	1 g		Yes	positive results
2667	No	2.5g	NA	Yes	
2668	Yes	1 g	0.5 g	No	
2674	Yes	1g		Yes	a released color is cheer and offer the extraction
2678	Yes	1		Yes	sten
2703	Yes	25	N/A	Yes	the extract solution was coloured
	100	2.0		100	confirmation test result: the absorbance of the
2712	Yes	2.5 g each sample		Yes	sample solution is 0.021 the absorbance of the control solution is 0.009
2719	Yes	1g		Yes	
					sample intake: combined testing of free and
					released formaldehyd dimedone confirmation:
2740	Yes	1 g (see remarks)	1 g (see remarks)	Yes	standard procedure in case of positive results
0744	Vaa	1 0022 ~	1	Vaa	Sample #21/56: doubt that the absorption may
2741	res	1.0022 g	1	res	ISO 14184-1 SAMPLE 21756 The water solution
2743	Yes	1 a	1 a	Yes	extracted was green coloured
2773			. 9		
					Dimedone confirmation test is done but is not
					subtracted because there is no turbidity or coloring
2789	Yes	1		Yes	agent in the sample.
					tor Sample #21756: green cotton, a coloration was
2703	No	1.00 a	No	Vec	observed the Absorbance of sample+dimedon is
2805	No	1,00 g	10	Yes	Because sample #21756 have color
2000	110	19	19	100	Absorbance difference corresponding to
					formaldehyde eluted from the sample exceeds
2826	Yes	1 gram	NA	Yes	0.05
2827	Yes	0.5g	0.5g	No	
2830	Yes	1g		Yes	
0004	Vee	1	4	N	Dimedon is used to bind formaldehyde (only for
2001	res	19	ıg	res	sample 21700 . Beacuse extracted solution has color to check the
2889	Yes	2 gram		Yes	method.
2903					
2921	Yes	1 gram		No	none
				1	Extract solution was coloured (the blue one)/ to
2926	Yes	2.5		Yes	confirm absorbance is due to formaldehyde.
2948		1	1	Yes	due to color release
2950	No	1		Yes	Due to Colour contamination

lab	ISO/IEC 17025 accredited	Sample Intake Free Formaldehyde (grams)	Sample Intake Released Formaldehyde	Dimedone confirmation test	Dimedone confirmation done because of
0055		4	(grams)		
2953	NO Vee	1	Natura da una sul	NO No	
2955	Yes	1 gm		No	
2958	Yes	1 g	1 g	No	
2959	res	1.000±0.01g 0.9972 a green 0.979 a	1.000±0.01g 0.9682 a blue 0.9600 a	INO	
		areen 1.0139 a blue	blue 0.8732 a areen		
2968	No	1,0934 g blue	0,9251 g green	No	
2973	No	2x 1 g		No	
2977	No	4	0	No	
2979	Yes	1 gram		Yes	
2980	No	1	1	Yes	
2982	Yes	1 gm	1 gm	No	
		#21755 : 1.0024 g; 1.0015 g #21756 :			
2984	Yes	1.0022 g; 1.0029 g	4	Yes	sample #21/56 : the water become colored
3100	Yes	1g	ig	NO	
3110					The amount of formaldebyde determined in the
					samples was higher than the laboratory reporting
3116	Yes	1 gram		Yes	limit.
3118	No	1 gram		Yes	for confirmation that the absorption of sample is due to formaldehyde, not from coloring reagent
3134	No	2 samples of 1 g each in 100ml H2O	2 samples of 1g each in 50ml H2O	No	We performed a chromotropic acid confirmation test. Additionally, second extraction iso 14184-1 of 1g of sample #21755 gave 5mg/Kg
3146	Yes	Between 0.50g and 1.00g	Released Formaldehyde was not tested.	No	
3153	Yes	1 gram	NA	No	NA
3154	Yes			No	
3160					
3172	Yes				
3176	Yes	1	1	Yes	To be sure the exact formaldehyde amount
3182	Yes	1.00 grams	1.00 grams	Yes	discoloration
3185	Yes	1g	1g	No	
3190	NO	1.0000g	1.0000g	No	
3195	Yes	2y 1 a	10	No	
5197	165	21755 1 0031g 21756	ту	INO	
3200	Yes	1.0027g	No Testing	No	
3207	Yes	1 gram		Yes	Sample #21755 Dimedone = 1 ppm Sample #21756 Dimedone = 1 ppm
3209	Yes	1g	1g	Yes	For method GB/T 2912, It is suspected that the absorbance value is not from formaldehyde, but from the color of the sample solution
3210	Yes	1		No	
3212	Yes	1		Yes	Coloration of the filtration
3214	Yes	1 g		No	
3216	Yes	Approx. 1g for each sample. Two replicates made from each sample	_	Yes	The sample referenced as #21756 (Green cotton) is tested with Dimedone because the extraction solution has a greenish colour which may interfere with the determination of formaldehyde.
3218	Yes	1.0g	1	No	/
3222	Yes	1 g		Yes	the result is near to the mandatory limit (European Regulation n. 1907/2006)
3225	Yes	0.5	Nil	Yes	It is positive so confirmation is needed.
3228	Yes	1.0		No	
3230	Yes	3 times 1 gram	2 times 2 grams	No	
3237	Yes	1 gr	-	Yes	-
3246	Yes	2.00		No	
3248	No	1.0000g	1.0000g	Yes	Result is greater than reporting limit
<u>8</u> 005	Yes	1 gram		Yes	amount of formaldehyde determined in the samples was higher than the laboratory reporting limit.
8008					

APPENDIX 3

Number of participants per country

10 labs in BANGLADESH 1 lab in BELGIUM 1 lab in BRAZIL 1 lab in BULGARIA 2 labs in CAMBODIA 4 labs in EGYPT 1 lab in FINLAND 4 labs in FRANCE 9 labs in GERMANY 1 lab in GREECE 1 lab in GUATEMALA 17 labs in HONG KONG 11 labs in INDIA 5 labs in INDONESIA 9 labs in ITALY 1 lab in LITHUANIA 2 labs in MAURITIUS 2 labs in MEXICO 2 labs in MOROCCO 45 labs in P.R. of CHINA 7 labs in PAKISTAN 1 lab in PERU 1 lab in PHILIPPINES 2 labs in POLAND 1 lab in PORTUGAL 2 labs in SINGAPORE 1 lab in SLOVENIA 3 labs in KOREA, Republic of 4 labs in SPAIN 3 labs in SRI LANKA 1 lab in SWITZERLAND 5 labs in TAIWAN 4 labs in THAILAND 1 lab in THE NETHERLANDS 3 labs in TUNISIA 6 labs in TURKEY 3 labs in U.S.A. 2 labs in UNITED KINGDOM 8 labs in VIETNAM

APPENDIX 4

Abbreviations

- C = final test result after checking of first reported suspect test result
- D(0.01) = outlier in Dixon's outlier test
- D(0.05) = straggler in Dixon's outlier test
- G(0.01) = outlier in Grubbs' outlier test
- G(0.05) = straggler in Grubbs' outlier test
- DG(0.01) = outlier in Double Grubbs' outlier test
- DG(0.05) = straggler in Double Grubbs' outlier test
- R(0.01) = outlier in Rosner's outlier test
- R(0.05) = straggler in Rosner's outlier test
- ex = test result excluded from statistical evaluation
- n.a. = not applicable
- n.e. = not evaluated
- n.d. = not detected

Literature

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