Results of Proficiency Test
Total Phthalates in Polymers
May 2021

Organized by: Institute for Interlaboratory Studies
Spijkenisse, the Netherlands

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CONTENTS

1 INTRODUCTION 3

2 SET UP 3

2.1 ACCREDITATION 3

2.2 PROTOCOL 3

2.3 CONFIDENTIALITY STATEMENT 4

2.4 SAMPLES 4

2.5 ANALYZES 5

3 RESULTS 5

3.1 STATISTICS 6

3.2 GRAPHICS 6

3.3 Z-SCORES 7

4 EVALUATION 8

4.1 EVALUATION PER SAMPLE AND PER COMPONENT 8

4.2 PERFORMANCE EVALUATION FOR THE GROUP OF LABORATORIES 9

4.3 COMPARISON OF THE PROFICIENCY TEST OF MAY 2021 WITH PREVIOUS PTS 10

4.4 EVALUATION OF THE ANALYTICAL DETAILS 11

5 DISCUSSION 11

6 CONCLUSION 12

Appendices:

1. Data, statistical and graphic results 13
2. Summary of other reported Phthalates 25
3. Analytical details 26
4. Number of participants per country 29
5. Abbreviations and literature 30

1 INTRODUCTION

Phthalates act as softeners and are commonly used as plasticizers in PVC. Phthalates may migrate easily from PVC into the environment. Phthalates appeared to have negative effects on health and the environment, and therefore regulations have been set up. The manufacture and import of toys into the EC is regulated by the European Union's Toy Directive 2009/48/EC with in addition the general product safety. The latter is covered by EU directive 1907/2006 (REACH). These regulations govern conditions related to toys intended for children under 36 months of age because this group often suck or chew on toys. Therefore, plastic toys are not allowed to contain more than 0.1 %M/M of DEHP, DBP, BBP and DIBP as individual or combined or more than 0.1%M/M of DINP, DIDP, and DNOP as individual or combined.

Since 2001 the Institute of Interlaboratory Studies (iis) organizes a proficiency scheme for the analysis of Phthalates in Polymers every year. During the annual proficiency testing program of 2020/2021, it was decided to continue the proficiency test for the analysis of Phthalates in Polymers.
In this interlaboratory study 180 laboratories in 41 different countries registered for participation. See appendix 4 for the number of participants per country. In this report the results of the Phthalates in Polymers 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 polyvinylchloride (PVC) samples of 3 grams each labelled #21595 and #21596. The samples were positive on some Phthalates.
The participants were requested to report rounded and unrounded test results. The unrounded test results were preferably used for statistical evaluation.

2.1 ACCREDITATION

The Institute for Interlaboratory Studies in Spijkenisse, the Netherlands, is accredited in agreement with ISO/IEC17043:2010 (R007), since January 2000, by the Dutch Accreditation Council (Raad voor Accreditatie). This PT falls under the accredited scope. 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

A batch of brown PVC granules was selected which was made positive on Di-(2-ethylhexyl) phthalate (DEHP) and Di-iso-nonyl phthalate (DINP). After homogenization 230 subsamples of approximately 3 grams each were prepared and labelled #21595. This batch has been used before in the PT on Phthalates in Polymers iis14P03 (sample #14066). Therefore, homogeneity of the subsamples was assumed.

A batch of red PVC rings was selected which was made positive with Benzyl butyl phthalate (BBP), Di-(2-ethylhexyl) phthalate (DEHP), Dibutyl phthalate (DBP) and Di-iso-decyl phthalate (DIDP). After homogenization 230 subsamples of approximately 3 grams each were prepared and labelled #21596.
The homogeneity of the subsamples was checked by the determination of all added Phthalates using an in-house method based on CPSC-CH-C1001-09.4 on 8 stratified randomly selected subsamples.

	BBP in %M/M	DEHP in %M/M	DBP in %M/M	DIDP in %M/M
sample #21596-1	0.0542	0.2796	0.1415	0.0882
sample #21596-2	0.0529	0.2783	0.1369	0.0891
sample #21596-3	0.0527	0.2763	0.1391	0.0825
sample #21596-4	0.0531	0.2715	0.1330	0.0844
sample #21596-5	0.0538	0.2745	0.1388	0.0873
sample #21596-6	0.0541	0.2722	0.1365	0.0883
sample #21596-7	0.0539	0.2763	0.1372	0.0832
sample #21596-8	0.0531	0.2754	0.1385	0.0893

Table 1: homogeneity test results of subsamples #21596

From the above test results the repeatabilities were calculated and compared with 0.3 times the corresponding reproducibility of the reference method in agreement with the procedure of ISO13528, Annex B2 in the next table.

	BBP in %M/M	DEHP in %M/M	DBP in %M/M	DIDP in %M/M
r (observed)	0.0016	0.0078	0.0069	0.0077
reference method	iis memo 1701	iis memo 1701	iis memo 1701	iis memo 1701
0.3 x R (reference method)	0.0072	0.0370	0.0185	0.0116

Table 2: evaluation of repeatabilities of subsamples #21596

All the calculated repeatabilities were in agreement with 0.3 times the corresponding reproducibility of the reference method. Therefore, homogeneity of the subsamples was assumed.

To each of the participating laboratories one sample labelled #21595 and one sample labelled #21596 were sent on May 5, 2021.

2.5 ANALYZES

The participants were requested to determine on samples #21595 and #21596 sixteen individual Phthalates, see appendices 1 and 2. It was also requested to report if the laboratory was accredited for the determined 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 can not 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-cts/. The reported test results are tabulated per sample and per determination in appendices 1 and 2 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 re-analysis). Additional or corrected test results are used for the data analysis and the original test results are placed under 'Remarks' in the test result tables in appendices 1 or 2. 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 wast 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) or DG(0.05) for the Grubbs' test and by R(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. The 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 of 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-purpose.

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:

	$\lvert z \rvert$	< 1	good
1 <	$\lvert z \rvert$	< 2	satisfactory
2 <	$\lvert z \rvert$	< 3	questionable
3 <	$\lvert z \rvert$		unsatisfactory

4 EVALUATION

In this proficiency test some problems were encountered with the dispatch of the samples. Seventeen participants reported after the final reporting date and two participants did not report any test results at all. Finally, 178 laboratories reported 1010 numerical test results. Observed were 27 outlying test results, which is 2.7%. In proficiency studies outlier percentages of 3% - 7.5% are quite normal.

Not all original data sets proved to have a normal Gaussion 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 COMPONENT

In this section the reported test results are discussed per sample and per component. 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 5.

Regretfully, the CPSC method does not contain any precision statements. ISO14389:14 does provide a variety of precision data. There are precision data mentioned for 4 different procedures in ISO14389:14 of which procedure 4 prescribes the extraction with THF followed by precipitation with Acetonitril. The reproducibility RSD_R for 7 different Phthtalates ranges from 31.5% - 124.9%.
Therefore, it is not surprising that in Annex D of test method ISO14389:14 is mentioned that “*Results indicated that both the four methods for Phthalates and the laboratories’ performance have to be drastically improved*”. It was decided in 2017 by iis to use the iis PT data gathered since 2010 to estimate a more realistic target reproducibility. This estimated target reproducibility was calculated from the relative standard deviation of 16% (iis memo 1701) multiplied by 2.8. This was used for the evaluation of the test results in this PT.

Sample #21595

DEHP: This determination was not problematic. Two statistical outliers were observed. The calculated reproducibility after rejection of the statistical outliers is in agreement with the target reproducibility as derived from iis memo 1701.

DINP: This determination may be problematic for a number of laboratories. Eight statistical outliers were observed. However, the calculated reproducibility after rejection of the statistical outliers is in agreement with the target reproducibility as derived from iis memo 1701.

For all other Phthalates the group of participants agreed on a concentration near or below 0.1%M/M. Therefore, these Phthalates were not evaluated. See appendix 2 for the reported test results.

Sample #21596

BBP: This determination was not problematic. Five statistical outliers were observed. The calculated reproducibility after rejection of the statistical outliers is in agreement with the target reproducibility as derived from iis memo 1701.

DEHP: This determination was not problematic. Three statistical outliers were observed. The calculated reproducibility after rejection of the statistical outliers is in agreement with the target reproducibility as derived from iis memo 1701.

DBP: This determination was not problematic. Four statistical outliers were observed. The calculated reproducibility after rejection of the statistical outliers is in agreement with the target reproducibility as derived from iis memo 1701.

DIDP: This determination was not problematic. Five statistical outliers were observed. The calculated reproducibility after rejection of the statistical outliers is in agreement with the target reproducibility as derived from iis memo 1701.

For all other Phthalates the group of participants agreed on a concentration near or below 0.1%M/M. Therefore, these Phthalates were not evaluated. See appendix 2 for the reported test results.

4.2 PERFORMANCE EVALUATION FOR THE GROUP OF LABORATORIES

A comparison has been made between the reproducibility as declared by the reference method 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 as derived from iis memo 1701 are presented in the next tables.

Component	unit	n	average	2.8 * sd	R(target)
DEHP	%M/M	175	0.349	0.132	0.156
DINP	%M/M	158	0.553	0.214	0.248

Table 3: reproducibilities of tests on sample #21595

Component	unit	n	average	2.8 * sd	R(target)
BBP	%M/M	168	0.048	0.020	0.022
DEHP	%M/M	175	0.267	0.089	0.120
DBP	%M/M	170	0.133	0.041	0.060
DIDP	%M/M	137	0.093	0.037	0.042

Table 4: reproducibilities of tests on sample #21596

Without further statistical calculations, it could be concluded that for the Phthalates present in the samples, there is a good compliance of the group of participating laboratories with the target.

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

	May 2021	June 2020	June 2019	May 2018	May 2017
Number of reporting laboratories	178	162	202	188	186
Number of test results	1010	1255	1475	1289	1339
Number of statistical outliers	27	41	47	60	18
Percentage of statistical outliers	2.7%	3.3%	3.2%	4.7%	1.3%

Table 5: 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 test was compared, expressed as relative standard deviation (RSD) of the PTs, see next table.

Component	May 2021	June 2020	June 2019	May 2018	2017-2006	Target
BBP	15%	12%	--	11%	11 - 25%	16%
DEHP	12 - 14%	12%	15%	13%	12 - 29%	16%
DBP	11%	13%	14%	13%	10 - 28%	16%
DIDP	14%	20%	16%	--	15 - 27%	16%
DINP [1)]	14%	--	23%	22%	12 - 33%	16%
DNOP	--	--	--	19%	15 - 23%	16%
DCHP	--	13%	--	11%	16%	16%
DEP	--	--	14 - 15%	8%	13%	16%
DMP	--	12 - 15%	14%	--	12%	16%
DNHP	--	--	--	--	10 - 17%	16%
DIBP	--	11%	11%	--	9 - 16%	16%
DNPP	--	--	--	14%	15 - 16%	16%
DPRP	--	--	12%	--	--	16%

Table 6: development of uncertainties of Phthalates over the years

1) Mix of DINP-1 and DINP-2 isomers

The uncertainties observed in this PT are comparable to the uncertainties observed in previous PTs and within the target uncertainty for most Phthalates.

4.4 EVALUATION OF THE ANALYTICAL DETAILS

The majority (90%) of the participants reported to be ISO/IEC17025 accredited for the determination of Phthalates in Polymers.

For this PT also some analytical details were requested, see appendix 3. Based on the answers given by the participants the following can be summarized:

- About 65% of the laboratories reported to have used CPSC-CH-C1001-09.4 as test method, about 8% of the laboratories reported to have used IEC62321-8.
  About 11% of the laboratories reported to have used an in-house method, other methods reported to be used were for example ISO/TS16181, ISO14389, ISO8124-6, IEC62321-8, ST-2016 and EN14372.
- About 75% of the participants used less than 0.5 grams as sample intake, about 15% used 0.5 grams and about 5% used more than 0.5 grams as sample intake.
- In this proficiency test the majority (84%) of the laboratories reported to have used THF as extraction solvent.

As the the majority of the group is reporting to have used the same conditions, no separate statistical analysis has been performed.

5 DISCUSSION

From 2008 - 2010 significant differences between the EN14372 results and the results from THF dissolution were observed. In the PTs of 2011 – 2014 this was no longer the case. In the proficiency test from 2015 onwards, the majority of laboratories used THF as extraction solvent. Also, in this proficiency test the majority of the laboratories used THF as solvent to release the Phthalates from the polymer material.

Sample #21595 was used earlier as sample #14066 in iis14P03 (2014). In table 7 a comparison is given over the two proficiency tests.

	Sample #21595				Sample #14066			
	unit	n	average	R(calc)	unit	n	average	R(calc)
DEHP	%M/M	175	0.349	0.132	%M/M	153	0.344	0.183
DINP	%M/M	158	0.553	0.214	%M/M	146	0.545	0.311

Table 7: comparison of sample #21595 with #14066

It is observed that the group in this PT performed in line with the previous determination of DEHP and DINP.

6 CONCLUSION

The majority of the group identified all positive Phthalates correctly: #21595 contained DEHP and DINP and sample #21596 contained BBP, DEHP, DBP and DIDP.

Plastic toys may contain either individual or in mixtures less than 0.1 %M/M of DEHP, DBP, BBP and DIBP or less than 0.1%M/M of DINP, DIDP and DNOP. When the results of this interlaboratory study were compared to the above regulations, it is noticed that almost all of the reporting laboratories would reject both samples #21595 and #21596 for containing too much Phthalates.

Although it can be concluded that most of the participants have no problem with the determination on Phthalates in Polymers in this PT, each participating laboratory will have to evaluate its performance in this study and decide about any corrective actions if necessary. 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 DEHP – Di-2-ethylhexyl phthalate on sample #21595; results in %M/M

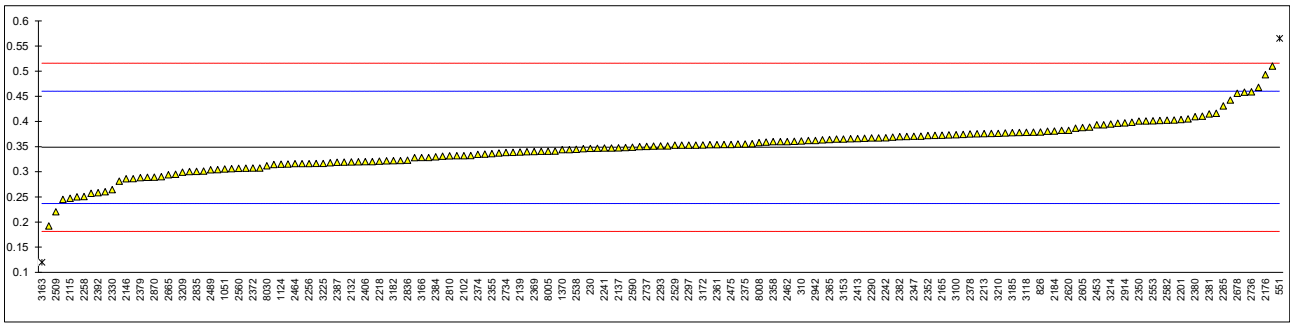
lab	method	value	mark	z(targ)	lab	method	value	mark	z(targ)
110		0.3214		-0.49	2372	CPSC-CH-C1001-09.4	0.3073		-0.74
210	ISO14389	0.458089		1.96	2374	CPSC-CH-C1001-09.4	0.3346		-0.25
230	In house	0.34633682		-0.04	2375	CPSC-CH-C1001-09.4	0.355		0.12
310	In house	0.361		0.22	2376	CPSC-CH-C1001-09.4	0.3599		0.20
339	In house	0.328128		-0.37	2378	CPSC-CH-C1001-09.4	0.375		0.47
348	CPSC-CH-C1001-09.4	0.3070		-0.75	2379	EN14372	0.2883	C	-1.08
362	In house	0.51		2.89	2380	ISO14389	0.40951		1.09
551		0.565	R1	3.88	2381	CPSC-CH-C1001-09.4	0.4150		1.19
623	CPSC-CH-C1001-09.4	0.2950		-0.96	2382	CPSC-CH-C1001-09.4	0.3696		0.38
826	IEC62321-8	0.379		0.55	2384	IEC62321-8	0.32951		-0.34
840	CPSC-CH-C1001-09.4	0.3605		0.21	2386	CPSC-CH-C1001-09.4	0.4048		1.01
841	CPSC-CH-C1001-09.4	0.3541		0.10	2387	IEC62321-8	0.31885		-0.53
1051	GB22048	0.3056		-0.77	2390	CPSC-CH-C1001-09.4	0.289		-1.07
1124	EN14372	0.3147		-0.61	2392	IEC62321-8	0.2584		-1.62
1195	CPSC-CH-C1001-09.4	0.36313		0.26	2406	CPSC-CH-C1001-09.4	0.3199		-0.51
1370	In house	0.344		-0.08	2413	CPSC-CH-C1001-09.4	0.366		0.31
1842	In house	0.376	C	0.49	2415	CPSC-CH-C1001-09.4	0.331		-0.31
2102		0.3319		-0.30	2426	CPSC-CH-C1001-09.4	0.3686		0.36
2115	CPSC-CH-C1001-09.4	0.247		-1.82	2429	CPSC-CH-C1001-09.4	0.4029		0.97
2129		0.353		0.08	2431	CPSC	0.3931		0.80
2132	CPSC-CH-C1001-09.4	0.3193		-0.52	2442	CPSC-CH-C1001-09.4	0.2450		-1.86
2137	In house	0.34754		-0.02	2453	ISO14389	0.393		0.80
2138	IEC62321-8	0.3512		0.05	2459		-----		-----
2139	CPSC-CH-C1001-09.4	0.339		-0.17	2460	CPSC-CH-C1001-09.4	0.46768		2.14
2146		0.2859		-1.12	2462	GB/T22048-A	0.360		0.21
2156	CPSC-CH-C1001-09.4	0.1920		-2.81	2464	CPSC-CH-C1001-09.4	0.316		-0.58
2159	CPSC-CH-C1001-09.4	0.3197		-0.52	2475	In house	0.3542		0.10
2165	CPSC-CH-C1001-09.4	0.3726		0.43	2476	CPSC-CH-C1001-09.4	0.3804		0.57
2170	CPSC-CH-C1001-09.4	0.3397		-0.16	2477	CPSC-CH-C1001-09.4	0.32219		-0.47
2176		0.493		2.59	2482	ISO16181Mod.	0.304		-0.80
2182	CPSC-CH-C1001-09.4	0.3141		-0.62	2489	CPSC-CH-C1001-09.4	0.3038		-0.80
2184	CPSC-CH-C1001-09.4	0.3807		0.58	2492	In house	0.3557		0.13
2201	CPSC-CH-C1001-09.4	0.4038		0.99	2500	CPSC-CH-C1001-09.4	0.3412		-0.13
2202	In house	0.3180		-0.55	2503	CPSC-CH-C1001-09.4	0.3012	C	-0.85
2213	CPSC-CH-C1001-09.4	0.3756		0.48	2504	CPSC-CH-C1001-09.4	0.3003		-0.87
2216	CPSC-CH-C1001-09.4	0.353		0.08	2507	CPSC-CH-C1001-09.3	0.319		-0.53
2218	CPSC-CH-C1001-09.4	0.321		-0.49	2509	CPSC-CH-C1001-09.4	0.2203		-2.30
2232	CPSC-CH-C1001-09.4	0.3384796		-0.18	2510		-----		-----
2241	ISO8124-6	0.3473		-0.02	2511	ISO16181-1	0.320		-0.51
2242	CPSC-CH-C1001-09.4	0.3674		0.34	2515	CPSC-CH-C1001-09.4	0.3061		-0.76
2247	CPSC-CH-C1001-09.4	0.359		0.19	2522	CPSC-CH-C1001-09.4	0.402		0.96
2250	CPSC-CH-C1001-09.3	0.2570		-1.64	2529	CPSC-CH-C1001-09.4	0.3529		0.08
2256	CPSC-CH-C1001-09.4	0.3162		-0.58	2532	CPSC-CH-C1001-09.4	0.3163		-0.58
2258	CPSC-CH-C1001-09.4	0.2508	C	-1.75	2538		0.34435		-0.08
2265	CPSC-CH-C1001-09.4	0.431		1.48	2553	CPSD-AN-00095	0.4012		0.94
2284	CPSC-CH-C1001-09.4	0.3821		0.60	2560	ISO14389	0.3067		-0.75
2286		0.416		1.21	2567	CPSC-CH-C1001-09.4	0.3657		0.31
2288	CPSC-CH-C1001-09.3	0.40084		0.94	2570	CPSC-CH-C1001-09.4	0.37816		0.53
2290	CPSC-CH-C1001-09.4	0.3672		0.33	2572	CPSC-CH-C1001-09.4	0.410282	C	1.11
2293	CPSC-CH-C1001-09.4	0.3511		0.05	2582	CPSC-CH-C1001-09.4	0.40260		0.97
2295	CPSC-CH-C1001-09.4	0.315		-0.60	2590	CPSC-CH-C1001-09.4	0.3488		0.00
2297	CPSC-CH-C1001-09.4	0.353		0.08	2602	ASU B82.02-16	0.3785		0.54
2310	CPSC-CH-C1001-09.4	0.35		0.03	2605	CPSC-CH-C1001-09.4	0.3876		0.70
2311	CPSC-CH-C1001-09.4	0.3317		-0.30	2620	EN62321-08Mod.	0.3823		0.61
2313	ISO14389	0.3771		0.51	2629	ISO16186	<0.005	f-?	<-6.16
2314	CPSC-CH-C1001-09.4	0.3373		-0.20	2643	CPSC-CH-C1001-09.4	0.3865		0.68
2316	IEC62321-8	0.34580		-0.05	2665	In house	0.294		-0.98
2320	CPSC-CH-C1001-09.4	0.398129		0.89	2674	CPSC-CH-C1001-09.4	0.3672		0.33
2330	CPSC-CH-C1001-09.4	0.26452		-1.51	2678	CPSC-CH-C1001-09.4	0.456		1.93
2347	CPSC-CH-C1001-09.4	0.3706		0.40	2701	CPSC-CH-C1001-09.4	0.346607		-0.03
2350	IEC62321-8	0.4008		0.94	2720	CPSC-CH-C1001-09.4	0.3887		0.72
2352	CPSC-CH-C1001-09.4	0.372		0.42	2734	CPSC-CH-C1001-09.4	0.338		-0.19
2353	IEC62321-8	0.3539		0.10	2736	CPSC-CH-C1001-09.4	0.4587		1.98
2355	IEC62321-8	0.3359		-0.23	2737	ISO16181-1	0.350157		0.03
2357	CPSC-CH-C1001-09.4	0.3440		-0.08	2741	CPSC-CH-C1001-09.4	0.3277		-0.37
2358	CPSC-CH-C1001-09.4	0.35989		0.20	2743	CPSC-CH-C1001-09.4	0.366633		0.32
2361	ISO8124-6	0.3539		0.10	2773	CPSC-CH-C1001-09.4	0.365		0.29
2363	CPSC-CH-C1001-09.4	0.370		0.38	2810	CPSC-CH-C1001-09.4	0.33139	C	-0.31
2365	CPSC-CH-C1001-09.4	0.36373		0.27	2821	In house	0.3724		0.43
2366	CPSC-CH-C1001-09.4	0.374		0.46	2826	IEC62321-8	0.3322		-0.29
2369	CPSC-CH-C1001-09.4	0.3399		-0.16	2829	CPSC-CH-C1001-09.4	0.335		-0.24
2370	CPSC-CH-C1001-09.4	0.355		0.12	2835	EPA3545A/8270E	0.300658		-0.86

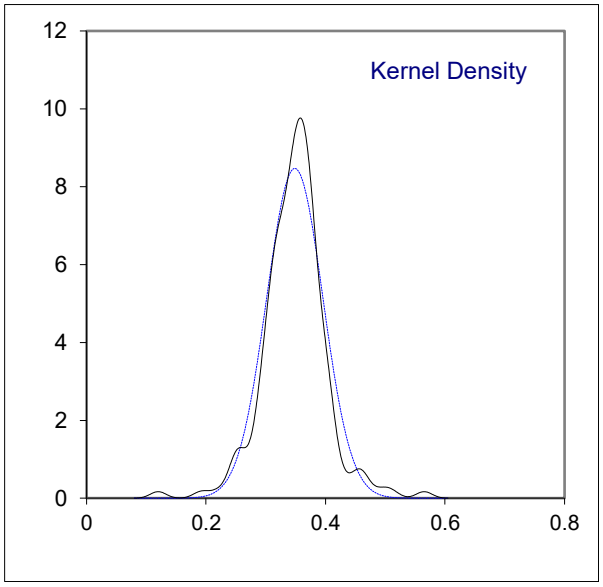
lab	method	value	mark	z(targ)	lab	method	value	mark	z(targ)
2836	CPSC-CH-C1001-09.4	0.3230		-0.46	3172	ISO8124-6	0.3532		0.08
2862	In house	0.4425	C	1.68	3176	CPSC-CH-C1001-09.4	0.250		-1.77
2864	CPSC-CH-C1001-09.4	0.3507194		0.04	3182	CPSC-CH-C1001-09.4	0.3218		-0.48
2867	CPSC-CH-C1001-09.4	0.3733		0.44	3185	CPSC-CH-C1001-09.4	0.3778		0.52
2870	In house	0.2893		-1.06	3200		0.3074		-0.74
2892	CPSC-CH-C1001-09.4	0.3406		-0.14	3209	CPSC-CH-C1001-09.4	0.299		-0.89
2910	CPSC-CH-C1001-09.4	0.3707		0.40	3210	In house	0.3762		0.50
2914	In house	0.397		0.87	3214	CPSC-CH-C1001-09.4	0.3950	C	0.83
2916	EN62321-8	0.290		-1.05	3218	CPSC-CH-C1001-09.3	0.3963		0.86
2942	CPSC-CH-C1001-09.4	0.362		0.24	3225	CPSC-CH-C1001-09.4	0.3163		-0.58
2959	CPSC-CH-C1001-09.4	0.3481		-0.01	3228	CPSC-CH-C1001-09.4	0.3752		0.48
3100	GB/T22048	0.3736		0.45	3237	CPSC-CH-C1001-09.4	0.2862		-1.12
3110	CPSC-CH-C1001-09.4	0.3619		0.24	3239	IEC62321-8	0.26		-1.59
3116	ISO8124-6	0.3473		-0.02	3248	CPSC-CH-C1001-09.4	0.3160		-0.58
3118	CPSC-CH-C1001-09.4	0.3784		0.54	8005	ST-2016	0.3407		-0.14
3153	CPSC-CH-C1001-09.4	0.3651		0.30	8008	ST-2016	0.3577		0.16
3163	In house	0.12	R1	-4.10	8015		0.28130		-1.21
3166	In house	0.328		-0.37	8030	ST-2016	0.3119		-0.66

normality	suspect	
n	175	
outliers	2	
mean (n)	0.34855	
st.dev. (n)	0.047125	RSD = 14%
R(calc.)	0.13195	
st.dev.(iis memo 1701)	0.055768	
R(iis memo 1701)	0.15615	

Lab 1842 first reported: 1.2273
Lab 2258 first reported: 0.7235
Lab 2379 first reported: 0.0619
Lab 2503 first reported: 3012 %M/M

Lab 2572 first reported: 4.10282
Lab 2810 first reported: 0.41209
Lab 2862 first reported: 0.79
Lab 3214 first reported: <0.3950





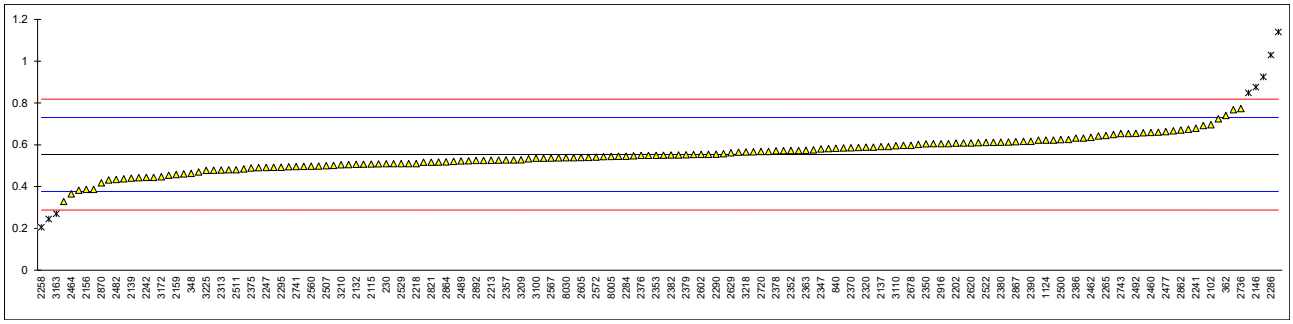
Determination of DINP – Di-iso-nonyl phthalate on sample #21595; results in %M/M

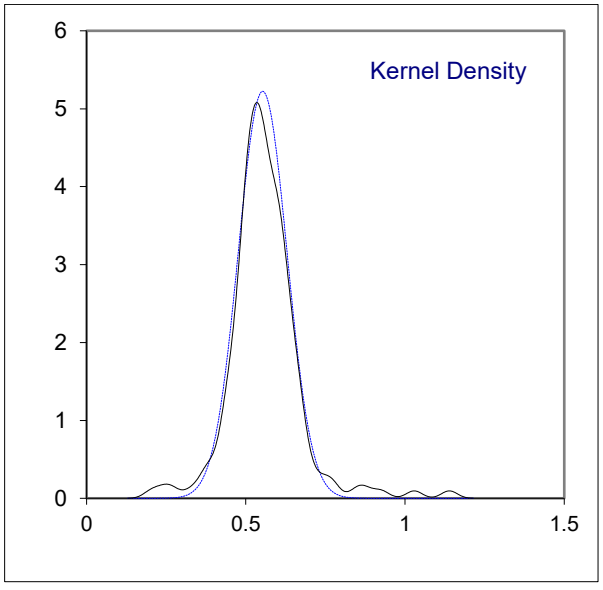
lab	method	value	mark	z(targ)	lab	method	value	mark	z(targ)
110		0.3868		-1.88	2372	CPSC-CH-C1001-09.4	0.5253		-0.31
210	ISO14389	0.615984		0.71	2374	CPSC-CH-C1001-09.4	0.5172		-0.41
230	In house	0.50903901		-0.50	2375	CPSC-CH-C1001-09.4	0.489		-0.72
310	In house	0.498		-0.62	2376	CPSC-CH-C1001-09.4	0.549		-0.05
339	In house	0.641524		1.00	2378	CPSC-CH-C1001-09.4	0.571		0.20
348	CPSC-CH-C1001-09.4	0.4627		-1.02	2379	EN14372	0.5518	C	-0.01
362	In house	0.74		2.11	2380	ISO14389	0.61174		0.66
551		0.925	R5	4.20	2381	CPSC-CH-C1001-09.4	0.596550		0.49
623	CPSC-CH-C1001-09.4	0.7670		2.42	2382	CPSC-CH-C1001-09.4	0.5512		-0.02
826	IEC62321-8	0.724		1.93	2384		-----		-----
840	CPSC-CH-C1001-09.4	0.5828		0.34	2386	CPSC-CH-C1001-09.4	0.6314		0.89
841	CPSC-CH-C1001-09.4	0.5885		0.40	2387	IEC62321-8	Not Tested		-----
1051	GB22048	0.5093		-0.49	2390	CPSC-CH-C1001-09.4	0.616		0.71
1124	EN14372	0.6222	C	0.78	2392	IEC62321-8	0.5226		-0.34
1195	CPSC-CH-C1001-09.4	Detected		-----	2406	CPSC-CH-C1001-09.4	0.4607		-1.04
1370		-----		-----	2413	CPSC-CH-C1001-09.4	<0.05	f-?	<-5.68
1842		-----		-----	2415	CPSC-CH-C1001-09.4	0.545		-0.09
2102		0.6958	C	1.61	2426	CPSC-CH-C1001-09.4	0.6225		0.78
2115	CPSC-CH-C1001-09.4	0.508		-0.51	2429	CPSC-CH-C1001-09.4	0.5013		-0.58
2129		0.470		-0.94	2431	CPSC	0.6745		1.37
2132	CPSC-CH-C1001-09.4	0.5064		-0.53	2442	CPSC-CH-C1001-09.4	0.4425		-1.25
2137	In house	0.59125		0.43	2453	ISO14389	0.564		0.12
2138	IEC62321-8	N.A.		-----	2459		-----		-----
2139	CPSC-CH-C1001-09.4	0.440	C	-1.28	2460	CPSC-CH-C1001-09.4	0.65874		1.19
2146		0.8753	R5	3.64	2462	GB/T22048-A	0.635		0.93
2156	CPSC-CH-C1001-09.4	0.3862		-1.89	2464	CPSC-CH-C1001-09.4	0.365		-2.13
2159	CPSC-CH-C1001-09.4	0.4573		-1.08	2475	In house	0.5514		-0.02
2165	CPSC-CH-C1001-09.4	0.6014		0.55	2476	CPSC-CH-C1001-09.4	0.8480	R5	3.33
2170	CPSC-CH-C1001-09.4	0.5396		-0.15	2477	CPSC-CH-C1001-09.4	0.66254		1.24
2176		0.660		1.21	2482	ISO16181Mod.	0.434		-1.35
2182	CPSC-CH-C1001-09.4	0.5275		-0.29	2489	CPSC-CH-C1001-09.4	0.5219		-0.35
2184	CPSC-CH-C1001-09.4	0.6051		0.59	2492	In house	0.6544		1.15
2201	CPSC-CH-C1001-09.4	0.5842		0.35	2500	CPSC-CH-C1001-09.4	0.6243		0.81
2202	In house	0.6078		0.62	2503	CPSC-CH-C1001-09.4	0.2440	C,R5	-3.49
2213	CPSC-CH-C1001-09.4	0.5258		-0.31	2504	CPSC-CH-C1001-09.4	0.4917		-0.69
2216	CPSC-CH-C1001-09.4	0.622		0.78	2507	CPSC-CH-C1001-09.3	0.500		-0.60
2218	CPSC-CH-C1001-09.4	0.510		-0.49	2509	CPSC-CH-C1001-09.4	0.5051		-0.54
2232	CPSC-CH-C1001-09.4	0.6537580		1.14	2510		-----		-----
2241	ISO8124-6	0.6787		1.42	2511	ISO16181-1	0.480		-0.83
2242	CPSC-CH-C1001-09.4	0.4437		-1.24	2515	CPSC-CH-C1001-09.4	0.6045		0.58
2247	CPSC-CH-C1001-09.4	0.491		-0.70	2522	CPSC-CH-C1001-09.4	0.611		0.65
2250	CPSC-CH-C1001-09.3	0.4369		-1.31	2529	CPSC-CH-C1001-09.4	0.5097		-0.49
2256	CPSC-CH-C1001-09.4	0.5914		0.43	2532	CPSC-CH-C1001-09.4	0.49		-0.71
2258	CPSC-CH-C1001-09.4	0.2049	C,R5	-3.93	2538		0.6491		1.09
2265	CPSC-CH-C1001-09.4	0.644		1.03	2553	CPSD-AN-00095	0.5098		-0.49
2284	CPSC-CH-C1001-09.4	0.5450		-0.09	2560	ISO14389	0.4978		-0.62
2286		1.029	R1	5.38	2567	CPSC-CH-C1001-09.4	0.5357		-0.20
2288		Unmeas.		-----	2570	CPSC-CH-C1001-09.4	not detect.	f-?	-----
2290	CPSC-CH-C1001-09.4	0.5550		0.02	2572	CPSC-CH-C1001-09.4	0.541162	C	-0.13
2293	CPSC-CH-C1001-09.4	0.5715		0.21	2582	CPSC-CH-C1001-09.4	0.53750		-0.18
2295	CPSC-CH-C1001-09.4	0.492		-0.69	2590		-----		-----
2297	CPSC-CH-C1001-09.4	0.532		-0.24	2602	ASU B82.02-16	0.5540		0.01
2310	CPSC-CH-C1001-09.4	0.48		-0.83	2605	CPSC-CH-C1001-09.4	0.5388		-0.16
2311	CPSC-CH-C1001-09.4	0.4970		-0.63	2620	EN62321-08Mod.	0.6085		0.63
2313	ISO14389	0.4785		-0.84	2629	ISO16186	0.561		0.09
2314	CPSC-CH-C1001-09.4	0.4543		-1.12	2643	CPSC-CH-C1001-09.4	0.6100		0.64
2316	IEC62321-8	0.58640		0.38	2665	In house	0.382		-1.93
2320	CPSC-CH-C1001-09.4	0.587985		0.39	2674	CPSC-CH-C1001-09.4	0.6126		0.67
2330	CPSC-CH-C1001-09.4	0.43159		-1.37	2678	CPSC-CH-C1001-09.4	0.597		0.50
2347	CPSC-CH-C1001-09.4	0.5800		0.30	2701	CPSC-CH-C1001-09.4	0.328409		-2.54
2350	IEC62321-8	0.6041		0.58	2720	CPSC-CH-C1001-09.4	0.5677		0.17
2352	CPSC-CH-C1001-09.4	0.572		0.21	2734	CPSC-CH-C1001-09.4	0.657		1.17
2353	IEC62321-8	0.5491		-0.04	2736	CPSC-CH-C1001-09.4	0.7731		2.49
2355	IEC62321-8	0.5541		0.01	2737	ISO16181-1	0.625356		0.82
2357	CPSC-CH-C1001-09.4	0.5270		-0.29	2741	CPSC-CH-C1001-09.4	0.4951		-0.66
2358	CPSC-CH-C1001-09.4	0.54945		-0.04	2743	CPSC-CH-C1001-09.4	0.653223		1.13
2361	ISO8124-6	0.5491		-0.04	2773	CPSC-CH-C1001-09.4	0.5165		-0.41
2363	CPSC-CH-C1001-09.4	0.573		0.23	2810	CPSC-CH-C1001-09.4	0.66629	C	1.28
2365	CPSC-CH-C1001-09.4	0.58137		0.32	2821	In house	0.5167		-0.41
2366	CPSC-CH-C1001-09.4	0.553		0.00	2826		-----		-----
2369	CPSC-CH-C1001-09.4	0.5199		-0.37	2829	CPSC-CH-C1001-09.4	0.572		0.21
2370	CPSC-CH-C1001-09.4	0.585		0.36	2835	EPA3545A/8270E	1.139480	R1	6.63

lab	method	value	mark	z(targ)	lab	method	value	mark	z(targ)
2836	CPSC-CH-C1001-09.4	0.6920		1.57	3172	ISO8124-6	0.4466		-1.20
2862	In house	0.67	C	1.32	3176	CPSC-CH-C1001-09.4	0.444		-1.23
2864	CPSC-CH-C1001-09.4	0.5179856		-0.40	3182	CPSC-CH-C1001-09.4	0.5380		-0.17
2867	CPSC-CH-C1001-09.4	0.6144		0.69	3185	CPSC-CH-C1001-09.4	0.5681		0.17
2870	In house	0.4180		-1.53	3200		0.5355		-0.20
2892	CPSC-CH-C1001-09.4	0.525		-0.32	3209	CPSC-CH-C1001-09.4	0.528		-0.28
2910	CPSC-CH-C1001-09.4	0.6116		0.66	3210	In house	0.5040	C	-0.55
2914	In house	0.632		0.89	3214	CPSC-CH-C1001-09.4	0.5748		0.25
2916	EN62321-8	0.605		0.59	3218	CPSC-CH-C1001-09.3	0.5657		0.14
2942	CPSC-CH-C1001-09.4	0.478		-0.85	3225	CPSC-CH-C1001-09.4	0.4774		-0.86
2959	CPSC-CH-C1001-09.4	0.5266		-0.30	3228	CPSC-CH-C1001-09.4	0.6082		0.62
3100	GB/T22048	0.5350		-0.20	3237	CPSC-CH-C1001-09.4	0.4946		-0.66
3110	CPSC-CH-C1001-09.4	0.5954		0.48	3239		-----		-----
3116	ISO8124-6	0.5470		-0.07	3248	CPSC-CH-C1001-09.4	0.5084		-0.50
3118	CPSC-CH-C1001-09.4	0.5665		0.15	8005	ST-2016	0.5440		-0.10
3153	CPSC-CH-C1001-09.4	0.5430		-0.11	8008	ST-2016	0.4843		-0.78
3163	In house	0.27	R5	-3.20	8015		0.55729		0.05
3166	In house	0.507		-0.52	8030	ST-2016	0.5378		-0.17

normality	OK
n	158
outliers	8
mean (n)	0.55306
st.dev. (n)	0.076399 RSD = 14%
R(calc.)	0.21392
st.dev.(iis memo 1701)	0.088490
R(iis memo 1701)	0.24777

Lab 1124 first reported: 0.9202
Lab 2102 first reported: not detected
Lab 2139 first reported: 0.971
Lab 2258 first reported: 0.2846
Lab 2379 first reported: 0.0962
Lab 2503 first reported: 2440 %M/M
Lab 2572 first reported: 5.41162
Lab 2810 first reported: 0.81338
Lab 2862 first reported: 2.095
Lab 3210 first reported: 0.0116





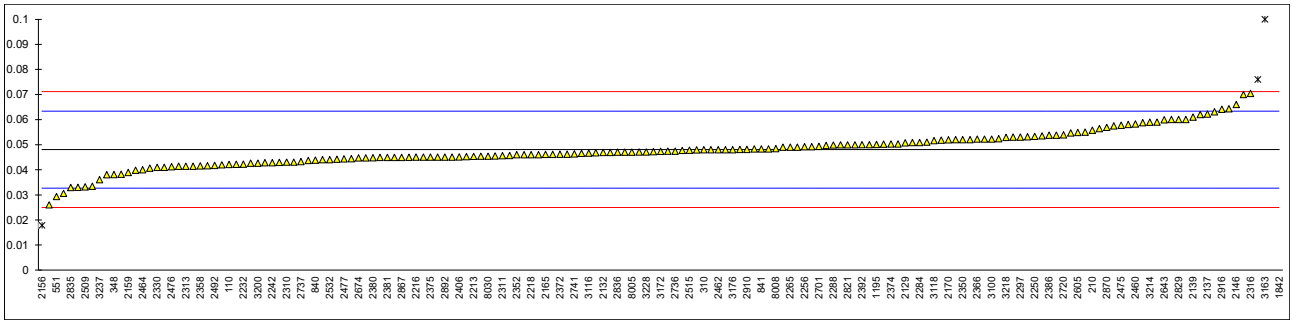
Determination of BBP – Benzyl butyl phthalate on sample #21596; results in %M/M

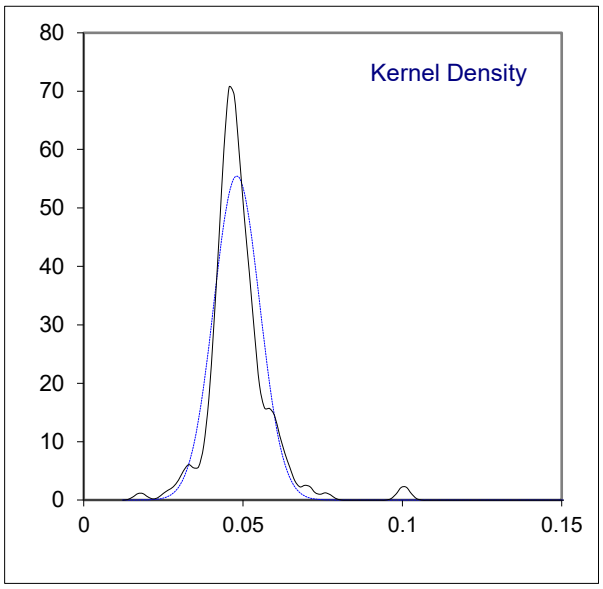
lab	method	value	mark	z(targ)	lab	method	value	mark	z(targ)
110		0.0421		-0.77	2372	CPSC-CH-C1001-09.4	0.0462		-0.24
210	ISO14389	0.055789		1.01	2374	CPSC-CH-C1001-09.4	0.0503		0.29
230	In house	0.04488604		-0.41	2375	CPSC-CH-C1001-09.4	0.045		-0.40
310	In house	0.048		-0.01	2376	CPSC-CH-C1001-09.4	0.0455		-0.33
339	In house	0.101	R1	6.89	2378	CPSC-CH-C1001-09.4	0.048		-0.01
348	CPSC-CH-C1001-09.4	0.0381		-1.29	2379	EN14372	0.0398		-1.07
362		-----		-----	2380	EN14389	0.04481		-0.42
551		0.0293		-2.44	2381	CPSC-CH-C1001-09.4	0.0449		-0.41
623	CPSC-CH-C1001-09.4	0.0510		0.38	2382	CPSC-CH-C1001-09.4	0.0483		0.03
826	IEC62321-8	0.0581		1.31	2384	IEC62321-8	0.04721		-0.11
840	CPSC-CH-C1001-09.4	0.0438		-0.55	2386	CPSC-CH-C1001-09.4	0.0538		0.75
841	CPSC-CH-C1001-09.4	0.0483		0.03	2387	IEC62321-8	0.04828		0.03
1051	GB22048	0.0452		-0.37	2390	CPSC-CH-C1001-09.4	0.053		0.64
1124	EN14372	0.0382		-1.28	2392	IEC62321-8	0.0500		0.25
1195	CPSC-CH-C1001-09.4	0.050102		0.27	2406	CPSC-CH-C1001-09.4	0.0451		-0.38
1370	In house	0.049		0.12	2413	CPSC-CH-C1001-09.4	<0.05		-----
1842	In house	0.412	C,R1	47.34	2415	CPSC-CH-C1001-09.4	0.0428		-0.68
2102		0.0461		-0.25	2426	CPSC-CH-C1001-09.4	0.0460		-0.27
2115	CPSC-CH-C1001-09.4	0.045		-0.40	2429	CPSC-CH-C1001-09.4	0.0518		0.49
2129		0.0507		0.35	2431	CPSC	0.0502		0.28
2132	CPSC-CH-C1001-09.4	0.0469		-0.15	2442	CPSC-CH-C1001-09.4	0.0306		-2.27
2137	In house	0.06220		1.84	2453	ISO14389	0.076	R5	3.64
2138	IEC62321-8	0.0600		1.56	2459		-----		-----
2139	CPSC-CH-C1001-09.4	0.061		1.69	2460	CPSC-CH-C1001-09.4	0.05828		1.33
2146		0.0660		2.34	2462	GB/T22048-A	0.048		-0.01
2156	CPSC-CH-C1001-09.4	0.0178	R5	-3.93	2464	CPSC-CH-C1001-09.4	0.040		-1.05
2159	CPSC-CH-C1001-09.4	0.0389		-1.19	2475	In house	0.0577		1.26
2165	CPSC-CH-C1001-09.4	0.0461		-0.25	2476	CPSC-CH-C1001-09.4	0.0412		-0.89
2170	CPSC-CH-C1001-09.4	0.0519		0.50	2477	CPSC-CH-C1001-09.4	0.04435		-0.48
2176		0.041		-0.92	2482	ISO16181Mod.	0.0474		-0.08
2182	CPSC-CH-C1001-09.4	0.0471		-0.12	2489	CPSC-CH-C1001-09.4	0.0449		-0.41
2184	CPSC-CH-C1001-09.4	0.0468		-0.16	2492	In house	0.04170		-0.83
2201	CPSC-CH-C1001-09.4	0.0522		0.54	2500	CPSC-CH-C1001-09.4	0.0462		-0.24
2202	In house	0.0457		-0.31	2503		-----		-----
2213		0.0453		-0.36	2504	CPSC-CH-C1001-09.4	0.0422		-0.76
2216	CPSC-CH-C1001-09.4	0.045		-0.40	2507	CPSC-CH-C1001-09.3	< 0.100		-----
2218	CPSC-CH-C1001-09.4	0.046		-0.27	2509	CPSC-CH-C1001-09.4	0.0332		-1.93
2232	CPSC-CH-C1001-09.4	0.0422244		-0.76	2510		-----		-----
2241	ISO8124-6	0.0429		-0.67	2511	CPSC-CH-C1001-09.4	0.049		0.12
2242	CPSC-CH-C1001-09.4	0.0428		-0.68	2515	CPSC-CH-C1001-09.4	0.0478		-0.03
2247	CPSC-CH-C1001-09.4	0.055		0.90	2522	CPSC-CH-C1001-09.4	0.048		-0.01
2250	CPSC-CH-C1001-09.3	0.0533		0.68	2529	CPSC-CH-C1001-09.4	0.04370		-0.57
2256	CPSC-CH-C1001-09.4	0.0492		0.15	2532	CPSC-CH-C1001-09.4	0.044		-0.53
2258	CPSC-CH-C1001-09.4	0.0508		0.36	2538		0.0334		-1.91
2265	CPSC-CH-C1001-09.4	0.049		0.12	2553	CPSD-AN-00095	0.0442		-0.50
2284	CPSC-CH-C1001-09.4	0.0508		0.36	2560	ISO14389	0.0426		-0.71
2286		0.059		1.42	2567	CPSC-CH-C1001-09.4	0.0503		0.29
2288	CPSC-CH-C1001-09.3	0.049841		0.23	2570	CPSC-CH-C1001-09.4	0.04809		0.01
2290	CPSC-CH-C1001-09.4	0.0575		1.23	2572	CPSC-CH-C1001-09.4	0.046909	C	-0.15
2293	CPSC-CH-C1001-09.4	0.0444		-0.47	2582	CPSC-CH-C1001-09.4	0.05315		0.66
2295	CPSC-CH-C1001-09.4	0.046		-0.27	2590	CPSC-CH-C1001-09.4	0.0631		1.96
2297	CPSC-CH-C1001-09.3	0.053		0.64	2602	ASU B82.02-16	0.0406		-0.97
2310	CPSC-CH-C1001-09.4	0.043		-0.66	2605	CPSC-CH-C1001-09.4	0.0549		0.89
2311	CPSC-CH-C1001-09.4	0.0456		-0.32	2620		0.0416		-0.84
2313	ISO14389	0.0414		-0.86	2629	ISO16186	0.045		-0.40
2314	CPSC-CH-C1001-09.4	0.0430		-0.66	2643	CPSC-CH-C1001-09.4	0.0599		1.54
2316	IEC62321-8	0.07040		2.91	2665	In house	0.026		-2.87
2320	CPSC-CH-C1001-09.4	0.058726		1.39	2674	CPSC-CH-C1001-09.4	0.0447		-0.44
2330	CPSC-CH-C1001-09.4	0.04097		-0.92	2678	CPSC-CH-C1001-09.4	0.052		0.51
2347	CPSC-CH-C1001-09.4	0.0500		0.25	2701	CPSC-CH-C1001-09.4	0.049306		0.16
2350	IEC62321-8	0.0520		0.51	2720	CPSC-CH-C1001-09.4	0.0539		0.76
2352	CPSC-CH-C1001-09.4	0.046		-0.27	2734	CPSC-CH-C1001-09.4	0.038		-1.31
2353	IEC62321-8	0.0414		-0.86	2736		0.0474		-0.08
2355	IEC62321-8	0.0499		0.24	2737	ISO16181-1	0.0432435		-0.62
2357	CPSC-CH-C1001-09.4	0.0440		-0.53	2741	CPSC-CH-C1001-09.4	0.0463		-0.23
2358	CPSC-CH-C1001-09.4	0.041532		-0.85	2743	CPSC-CH-C1001-09.4	0.064292		2.11
2361	ISO8124-6	0.0414		-0.86	2773	CPSC-CH-C1001-09.4	0.033		-1.96
2363	CPSC-CH-C1001-09.4	0.052		0.51	2810	CPSC-CH-C1001-09.4	0.04495		-0.40
2365	CPSC-CH-C1001-09.4	0.04994		0.25	2821	In house	0.0499		0.24
2366	CPSC-CH-C1001-09.4	0.0522		0.54	2826	IEC62321-8	0.0454		-0.34
2369	CPSC-CH-C1001-09.4	0.0492		0.15	2829	CPSC-CH-C1001-09.4	0.060		1.56
2370	IEC62321-8	0.0477		-0.05	2835	EPA3545A/8270E	0.032907		-1.97

lab	method	value	mark	z(targ)	lab	method	value	mark	z(targ)
2836	CPSC-CH-C1001-09.4	0.0470		-0.14	3172	ISO8124-6	0.0473		-0.10
2862	In house	0.06	C	1.56	3176	CPSC-CH-C1001-09.4	0.048		-0.01
2864	CPSC-CH-C1001-09.3	0.0534586		0.70	3182	CPSC-CH-C1001-09.4	0.0564		1.09
2867	CPSC-CH-C1001-09.4	0.0449		-0.41	3185	CPSC-CH-C1001-09.4	0.0547		0.87
2870	In house	0.0569		1.15	3200		0.0426		-0.71
2892	CPSC-CH-C1001-09.4	0.045		-0.40	3209	CPSC-CH-C1001-09.4	0.0450		-0.40
2910	CPSC-CH-C1001-09.4	0.0481		0.01	3210		0.0447		-0.44
2914	In house	0.047		-0.14	3214	CPSC-CH-C1001-09.4	0.0589		1.41
2916	EN62321-8	0.0641		2.09	3218	CPSC-CH-C1001-09.3	0.0529		0.63
2942	CPSC-CH-C1001-09.4	0.062		1.82	3225	CPSC-CH-C1001-09.4	0.04651		-0.20
2959	CPSC-CH-C1001-09.4	0.0524		0.57	3228	CPSC-CH-C1001-09.4	0.0471		-0.12
3100	GB/T22048	0.0522		0.54	3237	CPSC-CH-C1001-09.4	0.036		-1.57
3110		-----		-----	3239	IEC62321-8	0.07		2.86
3116	ISO8124-6	0.0466		-0.19	3248	CPSC-CH-C1001-09.4	0.0479		-0.02
3118	CPSC-CH-C1001-09.4	0.0516		0.46	8005	ST-2016	0.0470		-0.14
3153	CPSC-CH-C1001-09.4	0.0497		0.22	8008	ST-2016	0.0484		0.05
3163	In house	0.1	R1	6.76	8015	In house	0.04197		-0.79
3166	In house	0.0538		0.75	8030	ST-2016	0.0454		-0.34

normality	suspect	
n	168	
outliers	5	
mean (n)	0.04805	
st.dev. (n)	0.007188	RSD = 15%
R(calc.)	0.02013	
st.dev.(iis memo 1701)	0.007687	
R(iis memo 1701)	0.02152	

Lab 1842 first reported: 1.5169
Lab 2572 first reported: 0.46909
Lab 2862 first reported: 0.47





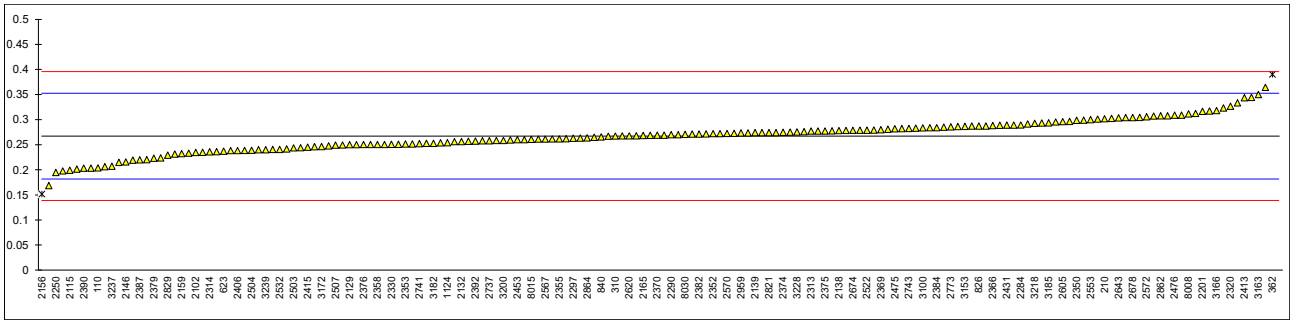
Determination of DEHP – Di-2-ethylhexyl phthalate on sample #21596; results in %M/M

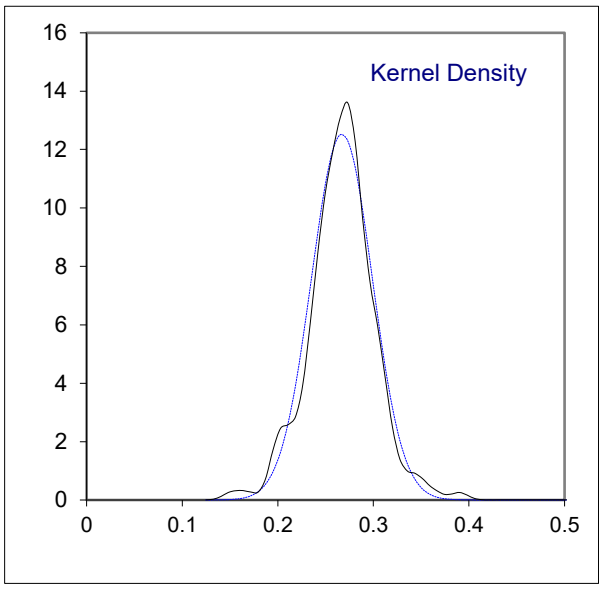
lab	method	value	mark	z(targ)	lab	method	value	mark	z(targ)
110		0.2038		-1.48	2372	CPSC-CH-C1001-09.4	0.2414		-0.60
210	ISO14389	0.301435		0.80	2374	CPSC-CH-C1001-09.4	0.2748		0.18
230	In house	0.26686217		-0.01	2375	CPSC-CH-C1001-09.4	0.277		0.23
310	In house	0.267	C	0.00	2376	CPSC-CH-C1001-09.4	0.2502		-0.40
339	In house	0.2200		-1.10	2378	CPSC-CH-C1001-09.4	0.276		0.21
348	CPSC-CH-C1001-09.4	0.1976		-1.63	2379	EN14372	0.2231		-1.03
362	In house	0.39	R5	2.87	2380	EN14389	0.30891		0.98
551		0.299		0.74	2381	CPSC-CH-C1001-09.4	0.3040		0.86
623	CPSC-CH-C1001-09.4	0.2370		-0.71	2382	CPSC-CH-C1001-09.4	0.2711		0.09
826	IEC62321-8	0.287		0.46	2384	IEC62321-8	0.28380		0.39
840	CPSC-CH-C1001-09.4	0.2653		-0.04	2386	CPSC-CH-C1001-09.4	0.3076		0.94
841	CPSC-CH-C1001-09.4	0.2749		0.18	2387	IEC62321-8	0.21954		-1.11
1051	GB22048	0.2439		-0.55	2390	CPSC-CH-C1001-09.4	0.203		-1.50
1124	EN14372	0.2538		-0.31	2392	IEC62321-8	0.2572		-0.23
1195	CPSC-CH-C1001-09.4	0.28371		0.39	2406	CPSC-CH-C1001-09.4	0.2382		-0.68
1370	In house	0.287		0.46	2413	CPSC-CH-C1001-09.4	0.3437		1.79
1842	In house	2.089	C,R1	42.61	2415	CPSC-CH-C1001-09.4	0.245		-0.52
2102		0.2346		-0.76	2426	CPSC-CH-C1001-09.4	0.2593		-0.18
2115	CPSC-CH-C1001-09.4	0.199		-1.60	2429	CPSC-CH-C1001-09.4	0.3123		1.05
2129		0.250		-0.40	2431	CPSC	0.2890		0.51
2132	CPSC-CH-C1001-09.4	0.2563		-0.26	2442	CPSC-CH-C1001-09.4	0.2577		-0.22
2137	In house	0.29646		0.68	2453	ISO14389	0.260		-0.17
2138	IEC62321-8	0.2780		0.25	2459		-----		-----
2139	CPSC-CH-C1001-09.4	0.274		0.16	2460	CPSC-CH-C1001-09.4	0.36428		2.27
2146		0.2155		-1.21	2462	GB/T22048-A	0.270		0.07
2156	CPSC-CH-C1001-09.4	0.1515	R5	-2.71	2464	CPSC-CH-C1001-09.4	0.236		-0.73
2159	CPSC-CH-C1001-09.4	0.2321		-0.82	2475	In house	0.2815		0.33
2165	CPSC-CH-C1001-09.4	0.2684		0.03	2476	CPSC-CH-C1001-09.4	0.3088		0.97
2170	CPSC-CH-C1001-09.4	0.2508		-0.38	2477	CPSC-CH-C1001-09.4	0.26466		-0.06
2176		0.323		1.30	2482	ISO16181Mod.	0.274		0.16
2182	CPSC-CH-C1001-09.4	0.2526		-0.34	2489	CPSC-CH-C1001-09.4	0.2404		-0.63
2184	CPSC-CH-C1001-09.4	0.2610		-0.15	2492	In house	0.2829		0.37
2201	CPSC-CH-C1001-09.4	0.3163		1.15	2500	CPSC-CH-C1001-09.4	0.2583		-0.21
2202	In house	0.2012		-1.54	2503	CPSC-CH-C1001-09.4	0.2435	C	-0.55
2213		0.2312		-0.84	2504	CPSC-CH-C1001-09.4	0.2387		-0.67
2216	CPSC-CH-C1001-09.4	0.271		0.09	2507	CPSC-CH-C1001-09.3	0.249		-0.43
2218	CPSC-CH-C1001-09.4	0.246		-0.50	2509	CPSC-CH-C1001-09.4	0.1684		-2.31
2232	CPSC-CH-C1001-09.4	0.2784448		0.26	2510		-----		-----
2241	ISO8124-6	0.2570		-0.24	2511	CPSC-CH-C1001-09.4	0.250		-0.40
2242	CPSC-CH-C1001-09.4	0.3009		0.79	2515	CPSC-CH-C1001-09.4	0.2534		-0.32
2247	CPSC-CH-C1001-09.4	0.279		0.28	2522	CPSC-CH-C1001-09.4	0.279		0.28
2250	CPSC-CH-C1001-09.3	0.1945		-1.70	2529	CPSC-CH-C1001-09.4	0.2725		0.12
2256	CPSC-CH-C1001-09.4	0.2677		0.01	2532	CPSC-CH-C1001-09.4	0.2404		-0.63
2258	CPSC-CH-C1001-09.4	0.2348	C	-0.76	2538		0.2885		0.50
2265	CPSC-CH-C1001-09.4	0.287		0.46	2553	CPSD-AN-00095	0.2998		0.76
2284	CPSC-CH-C1001-09.4	0.2892		0.51	2560	ISO14389	0.2383		-0.68
2286		0.317		1.16	2567	CPSC-CH-C1001-09.4	0.2612		-0.14
2288	CPSC-CH-C1001-09.3	0.30434		0.87	2570	CPSC-CH-C1001-09.4	0.2723		0.12
2290	CPSC-CH-C1001-09.4	0.2699		0.06	2572	CPSC-CH-C1001-09.4	0.305531	C	0.90
2293	CPSC-CH-C1001-09.4	0.2735		0.15	2582	CPSC-CH-C1001-09.4	0.30251		0.83
2295	CPSC-CH-C1001-09.4	0.240		-0.64	2590	CPSC-CH-C1001-09.4	0.2851		0.42
2297	CPSC-CH-C1001-09.3	0.263		-0.10	2602	ASU B82.02-16	0.2791		0.28
2310	CPSC-CH-C1001-09.4	0.269		0.04	2605	CPSC-CH-C1001-09.4	0.2959		0.67
2311	CPSC-CH-C1001-09.4	0.2614		-0.14	2620		0.2675		0.01
2313	ISO14389	0.2770		0.23	2629	ISO16186	0.307		0.93
2314	CPSC-CH-C1001-09.4	0.2356		-0.74	2643	CPSC-CH-C1001-09.4	0.3035		0.85
2316	IEC62321-8	0.29300		0.60	2665	In house	0.206		-1.43
2320	CPSC-CH-C1001-09.4	0.326520		1.39	2674	CPSC-CH-C1001-09.4	0.2785		0.26
2330	CPSC-CH-C1001-09.4	0.25079		-0.38	2678	CPSC-CH-C1001-09.4	0.304		0.86
2347	CPSC-CH-C1001-09.4	0.2675		0.01	2701	CPSC-CH-C1001-09.4	0.249385		-0.42
2350	IEC62321-8	0.2986		0.73	2720	CPSC-CH-C1001-09.4	0.2952		0.65
2352	CPSC-CH-C1001-09.4	0.272		0.11	2734	CPSC-CH-C1001-09.4	0.219		-1.13
2353	IEC62321-8	0.2515		-0.37	2736		0.2686		0.03
2355	IEC62321-8	0.2614		-0.14	2737	ISO16181-1	0.257764		-0.22
2357	CPSC-CH-C1001-09.4	0.2560		-0.26	2741	CPSC-CH-C1001-09.4	0.2520		-0.36
2358	CPSC-CH-C1001-09.4	0.250242		-0.40	2743	CPSC-CH-C1001-09.4	0.282262		0.35
2361	ISO8124-6	0.2515		-0.37	2773	CPSC-CH-C1001-09.4	0.2855		0.43
2363	CPSC-CH-C1001-09.4	0.277		0.23	2810	CPSC-CH-C1001-09.4	0.28201		0.35
2365	CPSC-CH-C1001-09.4	0.27748		0.24	2821	In house	0.2742		0.16
2366	CPSC-CH-C1001-09.4	0.288		0.49	2826	IEC62321-8	0.2502		-0.40
2369	CPSC-CH-C1001-09.4	0.2797		0.29	2829	CPSC-CH-C1001-09.4	0.229		-0.89
2370	IEC62321-8	0.269		0.04	2835	EPA3545A/8270E	0.280768		0.32

lab	method	value	mark	z(targ)	lab	method	value	mark	z(targ)
2836	CPSC-CH-C1001-09.4	0.2235		-1.02	3172	ISO8124-6	0.2462		-0.49
2862	In house	0.3075	C	0.94	3176	CPSC-CH-C1001-09.4	0.203		-1.50
2864	CPSC-CH-C1001-09.3	0.2634586		-0.09	3182	CPSC-CH-C1001-09.4	0.2526		-0.34
2867	CPSC-CH-C1001-09.4	0.2713		0.10	3185	CPSC-CH-C1001-09.4	0.2935		0.61
2870	In house	0.2144		-1.24	3200		0.2584		-0.21
2892	CPSC-CH-C1001-09.4	0.2600		-0.17	3209	CPSC-CH-C1001-09.4	0.262		-0.12
2910	CPSC-CH-C1001-09.4	0.2742		0.16	3210		0.3443		1.80
2914	In house	0.289		0.51	3214	CPSC-CH-C1001-09.4	0.2862		0.44
2916	EN62321-8	0.238		-0.68	3218	CPSC-CH-C1001-09.3	0.2926		0.59
2942	CPSC-CH-C1001-09.4	0.272		0.11	3225	CPSC-CH-C1001-09.4	0.2330		-0.80
2959	CPSC-CH-C1001-09.4	0.2734		0.14	3228	CPSC-CH-C1001-09.4	0.2753		0.19
3100	GB/T22048	0.2836		0.38	3237	CPSC-CH-C1001-09.4	0.207		-1.41
3110	CPSC-CH-C1001-09.4	0.2912		0.56	3239	IEC62321-8	0.24		-0.64
3116	ISO8124-6	0.2475		-0.46	3248	CPSC-CH-C1001-09.4	0.2503		-0.40
3118	CPSC-CH-C1001-09.4	0.3333		1.55	8005	ST-2016	0.2632		-0.09
3153	CPSC-CH-C1001-09.4	0.2864		0.45	8008	ST-2016	0.3114		1.03
3163	In house	0.35		1.94	8015	In house	0.26058		-0.16
3166	In house	0.318		1.19	8030	ST-2016	0.2706		0.08

normality	OK	
n	175	
outliers	3	
mean (n)	0.26721	
st.dev. (n)	0.031850	RSD = 12%
R(calc.)	0.08918	
st.dev.(iis memo 1701)	0.042753	
R(iis memo 1701)	0.11971	

Lab 310 first reported: not detected
Lab 1842 first reported: 9.4767
Lab 2258 first reported: 0.4719
Lab 2503 first reported: 2435 %M/M
Lab 2572 first reported: 3.05531
Lab 2862 first reported: 0.68





Determination of DBP – Dibutyl phthalate on sample #21596; results in %M/M

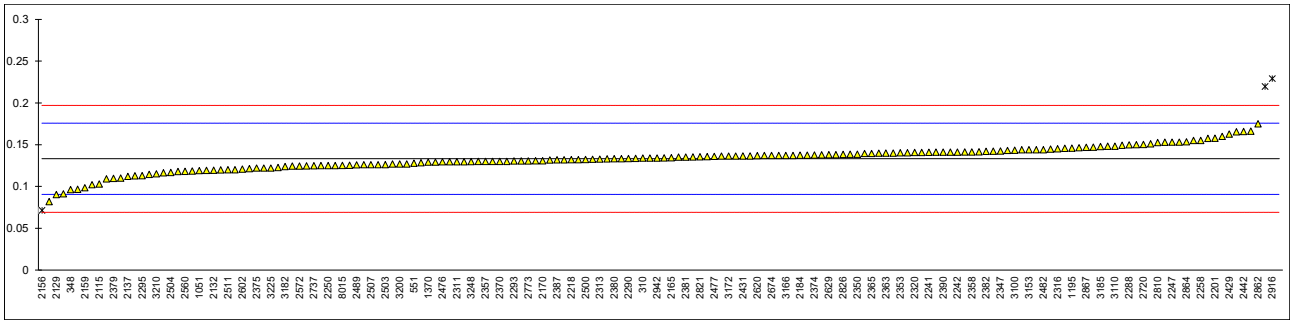
lab	method	value	mark	z(targ)	lab	method	value	mark	z(targ)
110		0.1243		-0.42	2372	CPSC-CH-C1001-09.4	0.1297		-0.17
210	ISO14389	0.131866		-0.06	2374	CPSC-CH-C1001-09.4	0.1376		0.21
230	In house	0.11632454		-0.79	2375	CPSC-CH-C1001-09.4	0.122		-0.53
310	In house	0.134		0.04	2376	CPSC-CH-C1001-09.4	0.1413		0.38
339	In house	0.125		-0.39	2378	CPSC-CH-C1001-09.4	0.130		-0.15
348	CPSC-CH-C1001-09.4	0.0963		-1.73	2379	EN14372	0.1096		-1.11
362		-----		-----	2380	EN14389	0.13321		0.00
551		0.1278		-0.25	2381	CPSC-CH-C1001-09.4	0.1351		0.09
623	CPSC-CH-C1001-09.4	0.1660		1.54	2382	CPSC-CH-C1001-09.4	0.1420		0.41
826	IEC62321-8	0.122		-0.53	2384	IEC62321-8	0.13554		0.11
840	CPSC-CH-C1001-09.4	0.1378		0.21	2386	CPSC-CH-C1001-09.4	0.1463		0.61
841	CPSC-CH-C1001-09.4	0.1481		0.70	2387	IEC62321-8	0.13174		-0.07
1051	GB22048	0.1190		-0.67	2390	CPSC-CH-C1001-09.4	0.141		0.37
1124	EN14372	0.1092		-1.13	2392	IEC62321-8	0.1297		-0.17
1195	CPSC-CH-C1001-09.4	0.145734		0.59	2406	CPSC-CH-C1001-09.4	0.1213		-0.56
1370	In house	0.129		-0.20	2413	CPSC-CH-C1001-09.4	0.2195	R1	4.05
1842	In house	1.809	C,R1	78.62	2415	CPSC-CH-C1001-09.4	0.125		-0.39
2102		0.1193		-0.65	2426	CPSC-CH-C1001-09.4	0.1290		-0.20
2115	CPSC-CH-C1001-09.4	0.103		-1.42	2429	CPSC-CH-C1001-09.4	0.1627		1.38
2129		0.0903		-2.01	2431	CPSC	0.1365		0.15
2132	CPSC-CH-C1001-09.4	0.1194		-0.65	2442	CPSC-CH-C1001-09.4	0.1658		1.53
2137	In house	0.11208		-0.99	2453	ISO14389	0.151		0.83
2138	IEC62321-8	0.1410		0.37	2459		-----		-----
2139	CPSC-CH-C1001-09.4	0.160		1.26	2460	CPSC-CH-C1001-09.4	0.15286		0.92
2146		0.0966		-1.72	2462	GB/T22048-A	0.140		0.32
2156	CPSC-CH-C1001-09.4	0.0714	R1	-2.90	2464	CPSC-CH-C1001-09.4	0.126		-0.34
2159	CPSC-CH-C1001-09.4	0.0985		-1.63	2475	In house	0.1363		0.14
2165	CPSC-CH-C1001-09.4	0.1344		0.06	2476	CPSC-CH-C1001-09.4	0.1294		-0.18
2170	CPSC-CH-C1001-09.4	0.1307		-0.12	2477	CPSC-CH-C1001-09.4	0.13598		0.13
2176		0.141		0.37	2482	ISO16181Mod.	0.144		0.51
2182	CPSC-CH-C1001-09.4	0.1246		-0.40	2489	CPSC-CH-C1001-09.4	0.1259		-0.34
2184	CPSC-CH-C1001-09.4	0.1374		0.20	2492	In house	0.1394		0.29
2201	CPSC-CH-C1001-09.4	0.1578		1.15	2500	CPSC-CH-C1001-09.4	0.1322		-0.05
2202	In house	0.1184		-0.70	2503	CPSC-CH-C1001-09.4	0.1262	C	-0.33
2213		0.1307		-0.12	2504	CPSC-CH-C1001-09.4	0.1168		-0.77
2216	CPSC-CH-C1001-09.4	0.135		0.08	2507	CPSC-CH-C1001-09.3	0.126		-0.34
2218	CPSC-CH-C1001-09.4	0.132		-0.06	2509	CPSC-CH-C1001-09.4	0.1178		-0.72
2232	CPSC-CH-C1001-09.4	0.1414370		0.39	2510		-----		-----
2241	ISO8124-6	0.1409		0.36	2511	CPSC-CH-C1001-09.4	0.120		-0.62
2242	CPSC-CH-C1001-09.4	0.1410		0.37	2515	CPSC-CH-C1001-09.4	0.1333		0.00
2247	CPSC-CH-C1001-09.4	0.153		0.93	2522	CPSC-CH-C1001-09.4	0.134		0.04
2250	CPSC-CH-C1001-09.3	0.1250		-0.39	2529	CPSC-CH-C1001-09.4	0.1407		0.35
2256	CPSC-CH-C1001-09.4	0.1341		0.04	2532	CPSC-CH-C1001-09.4	0.1306		-0.12
2258	CPSC-CH-C1001-09.4	0.1550	C	1.02	2538		-----		-----
2265	CPSC-CH-C1001-09.4	0.150		0.79	2553	CPSD-AN-00095	0.1365		0.15
2284	CPSC-CH-C1001-09.4	0.1439		0.50	2560	ISO14389	0.1181		-0.71
2286		0.155		1.02	2567	CPSC-CH-C1001-09.4	0.1336		0.02
2288	CPSC-CH-C1001-09.3	0.14973		0.77	2570	CPSC-CH-C1001-09.4	0.1331		-0.01
2290	CPSC-CH-C1001-09.4	0.1335		0.01	2572	CPSC-CH-C1001-09.4	0.124405	C	-0.41
2293	CPSC-CH-C1001-09.4	0.1306		-0.12	2582	CPSC-CH-C1001-09.4	0.13859		0.25
2295	CPSC-CH-C1001-09.4	0.113		-0.95	2590	CPSC-CH-C1001-09.4	0.0819		-2.41
2297	CPSC-CH-C1001-09.3	0.132		-0.06	2602	ASU B82.02-16	0.1208		-0.58
2310	CPSC-CH-C1001-09.4	0.13		-0.15	2605	CPSC-CH-C1001-09.4	0.1447		0.54
2311	CPSC-CH-C1001-09.4	0.1297		-0.17	2620		0.1369		0.17
2313	ISO14389	0.1328		-0.02	2629	ISO16186	0.138		0.22
2314	CPSC-CH-C1001-09.4	0.1228		-0.49	2643		-----		-----
2316	IEC62321-8	0.14500		0.55	2665	In house	0.110		-1.09
2320	CPSC-CH-C1001-09.4	0.140632		0.35	2674	CPSC-CH-C1001-09.4	0.1370		0.18
2330	CPSC-CH-C1001-09.4	0.11439		-0.88	2678	CPSC-CH-C1001-09.4	0.137		0.18
2347	CPSC-CH-C1001-09.4	0.1423		0.43	2701	CPSC-CH-C1001-09.4	0.125339		-0.37
2350	IEC62321-8	0.1386		0.25	2720	CPSC-CH-C1001-09.4	0.1503		0.80
2352	CPSC-CH-C1001-09.4	0.130		-0.15	2734	CPSC-CH-C1001-09.4	0.102		-1.46
2353	IEC62321-8	0.1404		0.34	2736		0.1375		0.20
2355	IEC62321-8	0.1352		0.09	2737	ISO16181-1	0.124801		-0.39
2357	CPSC-CH-C1001-09.4	0.130		-0.15	2741	CPSC-CH-C1001-09.4	0.1364		0.15
2358	CPSC-CH-C1001-09.4	0.141317		0.38	2743	CPSC-CH-C1001-09.4	0.157627		1.15
2361	ISO8124-6	0.1404		0.34	2773	CPSC-CH-C1001-09.4	0.1306		-0.12
2363	CPSC-CH-C1001-09.4	0.140		0.32	2810	CPSC-CH-C1001-09.4	0.15257		0.91
2365	CPSC-CH-C1001-09.4	0.13951		0.30	2821	In house	0.1355		0.11
2366	CPSC-CH-C1001-09.4	0.144		0.51	2826	IEC62321-8	0.1384		0.24
2369	CPSC-CH-C1001-09.4	0.1370		0.18	2829	CPSC-CH-C1001-09.4	0.127		-0.29
2370	IEC62321-8	0.130		-0.15	2835	EPA3545A/8270E	0.091226		-1.97

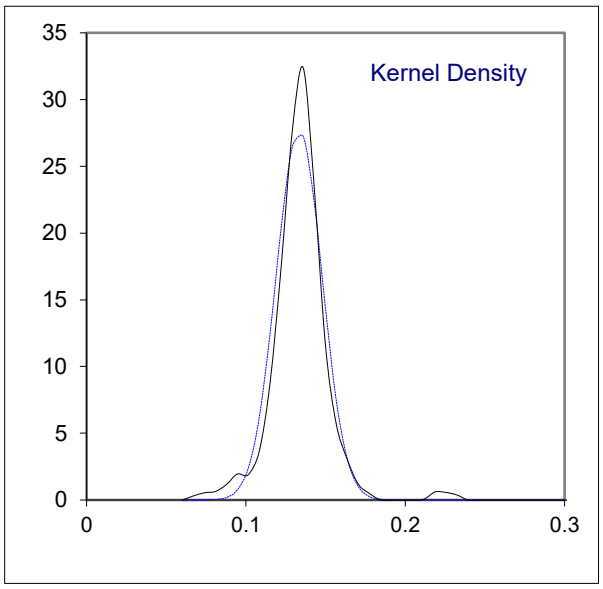
lab	method	value	mark	z(targ)	lab	method	value	mark	z(targ)
2836	CPSC-CH-C1001-09.4	0.1128		-0.96	3172	ISO8124-6	0.1363		0.14
2862	In house	0.175	C	1.96	3176	CPSC-CH-C1001-09.4	0.126		-0.34
2864	CPSC-CH-C1001-09.3	0.1533835		0.95	3182	CPSC-CH-C1001-09.4	0.1239		-0.44
2867	CPSC-CH-C1001-09.4	0.1468		0.64	3185	CPSC-CH-C1001-09.4	0.1477		0.68
2870	In house	0.1531		0.93	3200		0.1270		-0.29
2892	CPSC-CH-C1001-09.4	0.1397		0.30	3209	CPSC-CH-C1001-09.4	0.127		-0.29
2910	CPSC-CH-C1001-09.4	0.1316		-0.08	3210		0.1151		-0.85
2914	In house	0.147		0.65	3214	CPSC-CH-C1001-09.4	0.1456		0.58
2916	EN62321-8	0.229	R1	4.49	3218	CPSC-CH-C1001-09.3	0.1492		0.75
2942	CPSC-CH-C1001-09.4	0.134		0.04	3225	CPSC-CH-C1001-09.4	0.1221		-0.52
2959	CPSC-CH-C1001-09.4	0.1284		-0.23	3228	CPSC-CH-C1001-09.4	0.1421		0.42
3100	GB/T22048	0.1434		0.48	3237	CPSC-CH-C1001-09.4	0.137		0.18
3110	CPSC-CH-C1001-09.4	0.1481		0.70	3239	IEC62321-8	0.12		-0.62
3116	ISO8124-6	0.1380		0.22	3248	CPSC-CH-C1001-09.4	0.1298		-0.16
3118	CPSC-CH-C1001-09.4	0.1653		1.51	8005	ST-2016	0.1431		0.46
3153	CPSC-CH-C1001-09.4	0.1439		0.50	8008	ST-2016	0.1325		-0.03
3163		-----		-----	8015	In house	0.12512		-0.38
3166	In house	0.137		0.18	8030	ST-2016	0.1199		-0.62

normality	suspect	
n	170	
outliers	4	
mean (n)	0.13322	
st.dev. (n)	0.014623	RSD = 11%
R(calc.)	0.04095	
st.dev.(iis memo 1701)	0.021315	
R(iis memo 1701)	0.05968	

Lab 1842 first reported: 26.8211
Lab 2258 first reported: 0.2416
Lab 2503 first reported: 1262 %M/M

Lab 2572 first reported: 1.24405
Lab 2862 first reported: 0.42





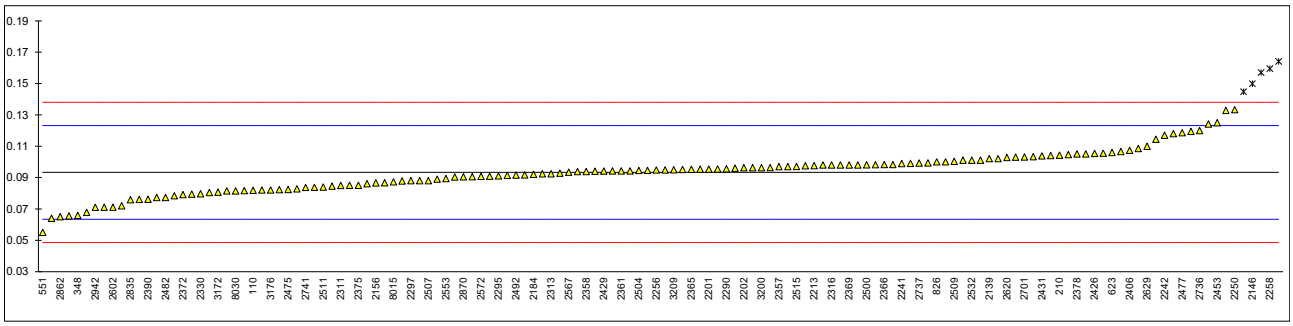
Determination of DIDP – Di-iso-decyl phthalate on sample #21596; results in %M/M

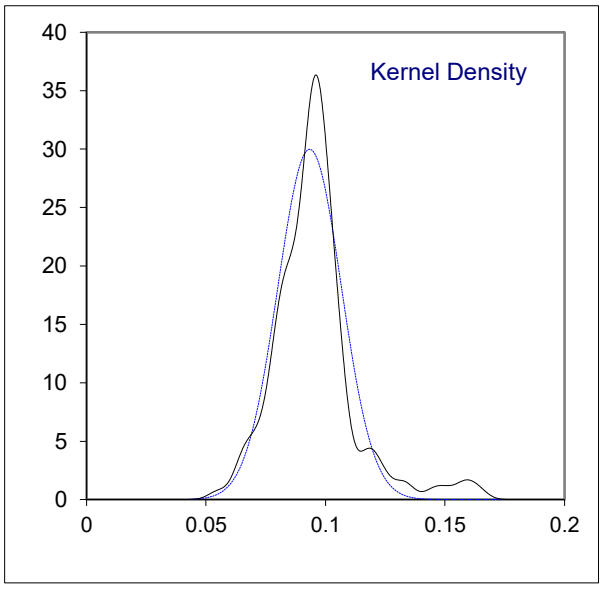
lab	method	value	mark	z(targ)	lab	method	value	mark	z(targ)
110		0.0818		-0.77	2372	CPSC-CH-C1001-09.4	0.0791		-0.95
210	ISO14389	0.104306		0.74	2374	CPSC-CH-C1001-09.4	0.0963		0.20
230	In house	0.08778104		-0.37	2375	CPSC-CH-C1001-09.4	0.085		-0.56
310	In house	not detected		-----	2376		-----		-----
339	In house	0.0794		-0.93	2378	CPSC-CH-C1001-09.4	0.105		0.78
348	CPSC-CH-C1001-09.4	0.0659		-1.84	2379	EN14372	0.0678		-1.71
362		-----		-----	2380	EN14389	0.10463		0.76
551		0.055		-2.57	2381	CPSC-CH-C1001-09.4	0.1050		0.78
623	CPSC-CH-C1001-09.4	0.1060		0.85	2382	CPSC-CH-C1001-09.4	0.0980		0.31
826	IEC62321-8	0.100		0.45	2384		-----		-----
840	CPSC-CH-C1001-09.4	0.0845		-0.59	2386	CPSC-CH-C1001-09.4	0.0949		0.11
841	CPSC-CH-C1001-09.4	0.0838		-0.64	2387	IEC62321-8	Not Tested		-----
1051	GB22048	0.1055		0.82	2390	CPSC-CH-C1001-09.4	0.0761		-1.15
1124	EN14372	0.1448	C,R5	3.45	2392	IEC62321-8	0.0711		-1.49
1195		-----		-----	2406	CPSC-CH-C1001-09.4	0.1074		0.94
1370		-----		-----	2413	CPSC-CH-C1001-09.4	<0.05		-----
1842		-----		-----	2415	CPSC-CH-C1001-09.4	0.0773		-1.07
2102		0.1085	C	1.02	2426	CPSC-CH-C1001-09.4	0.1053		0.80
2115	CPSC-CH-C1001-09.4	0.064		-1.96	2429	CPSC-CH-C1001-09.4	0.0941		0.05
2129		0.0783		-1.01	2431	CPSC	0.1038		0.70
2132	CPSC-CH-C1001-09.4	0.0917		-0.11	2442	CPSC-CH-C1001-09.4	0.1242		2.07
2137	In house	0.08234		-0.74	2453	ISO14389	0.125		2.12
2138	IEC62321-8	N.A.		-----	2459		-----		-----
2139	CPSC-CH-C1001-09.4	0.102		0.58	2460	CPSC-CH-C1001-09.4	0.1328		2.64
2146		0.1499	R5	3.79	2462	GB/T22048-A	0.089		-0.29
2156	CPSC-CH-C1001-09.4	0.0866		-0.45	2464		-----		-----
2159	CPSC-CH-C1001-09.4	0.0760		-1.16	2475	In house	0.0824		-0.73
2165	CPSC-CH-C1001-09.4	0.0908		-0.17	2476		-----		-----
2170	CPSC-CH-C1001-09.4	0.0914		-0.13	2477	CPSC-CH-C1001-09.4	0.11856		1.69
2176		-----		-----	2482	ISO16181Mod.	0.0773		-1.07
2182	CPSC-CH-C1001-09.4	0.1066		0.89	2489	CPSC-CH-C1001-09.4	0.1011		0.52
2184	CPSC-CH-C1001-09.4	0.0921		-0.08	2492	In house	0.09159		-0.12
2201	CPSC-CH-C1001-09.4	0.0954		0.14	2500	CPSC-CH-C1001-09.4	0.0981		0.32
2202	In house	0.0962		0.19	2503	CPSC-CH-C1001-09.4	0.0962	C	0.19
2213		0.0976		0.29	2504	CPSC-CH-C1001-09.4	0.0945		0.08
2216	CPSC-CH-C1001-09.4	0.088		-0.36	2507	CPSC-CH-C1001-09.3	0.088		-0.36
2218		-----		-----	2509	CPSC-CH-C1001-09.4	0.1004		0.47
2232		-----		-----	2510		-----		-----
2241	ISO8124-6	0.0989		0.37	2511	CPSC-CH-C1001-09.4	0.084		-0.62
2242	CPSC-CH-C1001-09.4	0.117	C	1.59	2515	CPSC-CH-C1001-09.4	0.0971		0.25
2247	CPSC-CH-C1001-09.4	0.104		0.72	2522		-----		-----
2250	CPSC-CH-C1001-09.3	0.1333		2.68	2529		-----		-----
2256	CPSC-CH-C1001-09.4	0.0948		0.10	2532	CPSC-CH-C1001-09.4	0.1011		0.52
2258	CPSC-CH-C1001-09.4	0.1595	C,R1	4.43	2538		0.1000		0.45
2265	CPSC-CH-C1001-09.4	0.103		0.65	2553	CPSD-AN-00095	0.0894		-0.26
2284	CPSC-CH-C1001-09.4	0.0959		0.17	2560	ISO14389	0.0928		-0.03
2286		0.157	R1	4.26	2567	CPSC-CH-C1001-09.4	0.0934		0.01
2288	CPSC-CH-C1001-09.3	Unmeas.		-----	2570	CPSC-CH-C1001-09.4	not detected		-----
2290	CPSC-CH-C1001-09.4	0.0956		0.15	2572	CPSC-CH-C1001-09.4	0.090675	C	-0.18
2293	CPSC-CH-C1001-09.4	0.0982		0.33	2582	CPSC-CH-C1001-09.4	0.09907		0.39
2295	CPSC-CH-C1001-09.4	0.091		-0.16	2590	CPSC-CH-C1001-09.4	0.1194		1.75
2297	CPSC-CH-C1001-09.3	0.088		-0.36	2602	ASU B82.02-16	0.0711		-1.49
2310	CPSC-CH-C1001-09.4	0.085		-0.56	2605	CPSC-CH-C1001-09.4	0.0952		0.13
2311	CPSC-CH-C1001-09.4	0.0849		-0.56	2620		0.1028		0.63
2313	ISO14389	0.0924		-0.06	2629	ISO16186	0.110		1.12
2314	CPSC-CH-C1001-09.4	0.0867		-0.44	2643	CPSC-CH-C1001-09.4	0.0816		-0.78
2316	IEC62321-8	0.09800		0.31	2665	In house	<0.03	C	<-4.24
2320	CPSC-CH-C1001-09.4	0.095377		0.14	2674	CPSC-CH-C1001-09.4	not appl.		-----
2330	CPSC-CH-C1001-09.4	0.07958		-0.92	2678	CPSC-CH-C1001-09.4	not detected		-----
2347	CPSC-CH-C1001-09.4	0.0980		0.31	2701	CPSC-CH-C1001-09.4	0.103132		0.66
2350	IEC62321-8	0.0983		0.33	2720	CPSC-CH-C1001-09.4	0.0942		0.06
2352	CPSC-CH-C1001-09.4	0.098		0.31	2734	CPSC-CH-C1001-09.4	0.164	R1	4.73
2353	IEC62321-8	0.0942		0.06	2736		0.1199		1.78
2355	IEC62321-8	0.0924		-0.06	2737	ISO16181-1	0.099191		0.39
2357	CPSC-CH-C1001-09.4	0.0970		0.25	2741	CPSC-CH-C1001-09.4	0.0837		-0.64
2358	CPSC-CH-C1001-09.4	0.093817		0.03	2743	CPSC-CH-C1001-09.4	0.114385		1.41
2361	ISO8124-6	0.0942		0.06	2773	CPSC-CH-C1001-09.4	0.0903		-0.20
2363	CPSC-CH-C1001-09.4	0.094		0.05	2810		-----		-----
2365	CPSC-CH-C1001-09.4	0.09528		0.13	2821	In house	0.0656		-1.86
2366	CPSC-CH-C1001-09.4	0.0983		0.33	2826		-----		-----
2369	CPSC-CH-C1001-09.4	0.0980		0.31	2829	CPSC-CH-C1001-09.4	0.118		1.65
2370	IEC62321-8	0.0805		-0.86	2835	EPA3545A/8270E	0.075816		-1.17

lab	method	value	mark	z(targ)	lab	method	value	mark	z(targ)
2836	CPSC-CH-C1001-09.4	0.0720		-1.43	3172	ISO8124-6	0.0807		-0.85
2862	In house	0.065		-1.90	3176	CPSC-CH-C1001-09.4	0.082		-0.76
2864	CPSC-CH-C1001-09.3	not determ.		-----	3182	CPSC-CH-C1001-09.4	0.0938		0.03
2867	CPSC-CH-C1001-09.4	not appl.		-----	3185		-----		-----
2870	In house	0.0904		-0.20	3200		0.0962		0.19
2892	CPSC-CH-C1001-09.4	0.0820		-0.76	3209	CPSC-CH-C1001-09.4	0.0950		0.11
2910	CPSC-CH-C1001-09.4	not appl.		-----	3210		0.0828		-0.70
2914		-----		-----	3214	CPSC-CH-C1001-09.4	0.0993		0.40
2916	EN62321-8	0.102		0.58	3218	CPSC-CH-C1001-09.3	0.0905		-0.19
2942	CPSC-CH-C1001-09.4	0.071		-1.49	3225		-----		-----
2959	CPSC-CH-C1001-09.4	0.0970		0.25	3228	CPSC-CH-C1001-09.4	not appl.		-----
3100	GB/T22048	0.0946		0.09	3237	CPSC-CH-C1001-09.4	0.0814		-0.80
3110		-----		-----	3239		-----		-----
3116	ISO8124-6	0.1033		0.67	3248	CPSC-CH-C1001-09.4	0.0975		0.28
3118	CPSC-CH-C1001-09.4	0.0861		-0.48	8005	ST-2016	0.1011		0.52
3153		-----		-----	8008	ST-2016	0.0955		0.15
3163		-----		-----	8015	In house	0.08723		-0.41
3166	In house	<0.1		-----	8030	ST-2016	0.0814		-0.80

normality	OK	
n	137	
outliers	5	
mean (n)	0.09332	
st.dev. (n)	0.013306	RSD = 14%
R(calc.)	0.03726	
st.dev.(iis memo 1701)	0.014931	
R(iis memo 1701)	0.04181	

Lab 1124 first reported: 0.0282
Lab 2102 first reported: not detected
Lab 2242 first reported: 0.141
Lab 2258 first reported: 0.3100
Lab 2503 first reported: 962 %M/M
Lab 2572 first reported: 0.90675
Lab 2665 first reported: 0.03





APPENDIX 2

Summary of all other reported Phthalates in sample #21595; results in %M/M

lab	Other reported Chlorinated Phenols
2286	Other Phthalates: 1.445
2297	Other Phthalates: 0.885
2538	Other Phthalates: 0.9952
2629	Diethylphthalate (DEP): 0.339
3218	Other Phthalates: 0.9620

Summary of all other reported Phthalates in sample #21596; results in %M/M

lab	Other reported Chlorinated Phenols
362	Di-n-octylphthalate (DNOP): 3.56
1842	Di-iso-butylphthalate (DIBP): 0.133
2176	Di-n-octylphthalate (DNOP): 6.901
2286	Other Phthalates: 0.688
2297	Other Phthalates: 0.536
2386	Other Phthalates: 25.00
2602	Other Phthalates: 28.9207
2678	Di-n-octylphthalate (DNOP): 0.109
3166	Other Phthalates: 4.17
3218	Other Phthalates: 0.5852

Lab 1842 first reported for DIBP: 1.7076

APPENDIX 3 Analytical details

Lab	ISO17025 accredited	sample further grinded or cut	sample intake (g)	extraction solvent	extraction time (min)	extraction temp (°C)
110	Yes	Further cut	50 mg	THF	2 hrs	25
210	No	---	---	---	---	---
230	Yes	Further cut	0.1	Tetrahydrofuran	60	60
310	No	Further cut	#21595: 0,2568 #21596: 0,2593	tetrahydrofuran	overnight	Room temperature
339	No	Used as received	0.5	THF	60	60
348	Yes	---	0.1	Tetrahydrofuran	180	60±5ºC
362	Yes	Used as received	50mg	THF:Hexane	30	60
551	---	---	---	---	---	---
623	Yes	Further cut	0.1	THF-hexane	60	60
826	Yes	Used as received	0.3	THF	60	Room temperature
840	Yes	Further cut	0.5	THF-HEXANE	60	60
841	Yes	Further cut	0.1 grams	Tetrahydrofuran	60 minutes	60°C
1051	Yes	Further cut	1g	Dichloromethane	360 mins	*
1124	Yes	Further cut	0.6	Diethyl ether	360	Reflux
1195	Yes	Used as received	0.25 grams	THF - Acetonitrile	THF 90 / ACN 30	25 °C
1370	Yes	Used as received	0,15	Toluene	960 min.	120°C
1842	Yes	Used as received	0.1g	Hexane	30 minutes	90 degrees
2102	Yes	Used as received	0.15	THF/Hexane (1:2)	30 minutes	Ambient
2115	Yes	Used as received	0.1 g	THF/Hexane	30 min	25°C
2129	Yes	Used as received	0,5 g	100% THF	60 min	60°C
2132	Yes	Further cut	0.05g	Tetrahydrofuran	150 mins	Room Temperature
2137	Yes	Used as received	---	---	---	---
2138	Yes	Used as received	0.2~0.3g	THF/ACN	60minutes	60
2139	Yes	Further cut	0.05 g	hexane	60 min	60
2146	Yes	Used as received	0.05 g	THF/Hexane	150 min	Room temperature
2156	Yes	Further cut	0.05±0.005	THF/ Hexane.	> 150 minutes.	Room temperature.
2159	Yes	Further cut	0,3 gram	THF/ACN	30	40 °C
2165	Yes	Further cut	N/A.	N/A.	N/A.	N/A.
2170	Yes	Further cut <2mm	0.05g	THF/Hexane	90mins	40C
2176	Yes	Further grinded	0.10 gram/data	THF	40 minutes	
2182	Yes	Further cut	0.05g	THF	30 minutes	ROOM TEMP.
2184	Yes	Further cut	n.a.	THF/n-hexane	n.a.	n.a.
2201	Yes	Further cut	50mg	TFH	120 min	Room Temp
2202	Yes	Used as received	0.5g	THF/Toluene/Hexane	over 12hrs	room temperature
2213	Yes	Further cut	0.5 gm	THF & n-hexane	30 min	room temp
2216	Yes	Further cut	0.33	THF/Hexane	150	Ambient
2218	Yes	Further cut	0.05g	THF/Hexane	30 mins	
2232	Yes	Further cut	0.05g	THF, Acetonitrile	30	40
2241	Yes	21595 used as rec. 21596 further cut	0.5g	Methylene chloride	60min	60°C
2242	Yes	Further cut	0.1 grams	Hexane/THF (2:1)	150 minutes	23.89 °Celsius
2247	No	Further cut	0.3gm	THF & n-Hexane	30.0	Room temperature
2250	Yes	Used as received	0,3	THF/ACN	120	40
2256	Yes	Further cut	0.3g	THF	30mins	40℃
2258	Yes	Used as received	#21595: 0.0658 #21596: 0.0622	TETRAHYDROFURAN / ACETONOTRILE	120	40
2265	Yes	Further cut	0,3g	THF\n-Hexane (1:2)	60 min.	60 °C
2284	Yes	Further cut	0.3 g	THF, Hexane	60 minutes	60 °C
2286	No	Further grinded	1.0g	Acetone/hexane	16 hours	40℃
2288	Yes	Further grinded	0.1g	THF	60min	room temperature
2290	Yes	---				
2293	Yes	Further cut	0.051	THFn and n-Hexane	30	25
2295	Yes	Further cut	50 miligrams	THF	120	Room temperature
2297	Yes	Used as received	0.5g	THF+HEXANE	30MIN	40
2310	Yes	Further cut	o.1g	THF/Hexane	60	60
2311	Yes	Further cut	0.1	THF + Hexane	60	60
2313	Yes	Further cut	0.3g	THF/ n-hexane	60 min	60
2314	Yes	Further cut	0.2 gms	THF & Hexane	60 mts	60°C
2316	Yes	Further cut	0.5 g	THF and n-Hexane	60 minutes	60° C
2320	Yes	Further cut	0.1g	THF	60min	60°C
2330	Yes	Further cut	0.050g	THF : n-Hexane	30 minutes	40°C
2347	Yes	Further cut	0.05g	Tetrahydrofuran	60mins	
2350	Yes	Further cut	0.3g	THF +ACN	30 min	40
2352	Yes	Further cut	0.1g	THF	30min	
2353	Yes	Further cut	0.5g	n-hexane	6 hr (360minutes)	150C
2355	Yes	Further cut	0.3g	THF:ACN=1:2	60min	60
2357	---	---	---	---	---	---
2358	---	---	---	---	---	---

Lab	ISO17025 accredited	sample further grinded or cut	sample intake (g)	extraction solvent	extraction time (min)	extraction temp (°C)
2361	---	---	---	---	---	---
2363	Yes	Further cut	0.05g	THF and n-Hexane	60min	60
2365	Yes	Further cut	0.1g	THF:N-hexane=1:2	60min	60℃
2366	Yes	Further cut	0.1g	THF and n-hexane	60min	60℃
2369	Yes	Further cut	0.1g	hexane&THF	60min	60
2370	Yes	Further cut	21595: 0.1 21596: 0.3g	21595:THF:HEX (1:2) 21596:THF：ACN (1:2)	60 min	room temperature
2372	Yes	Used as received	0.3g	Tetrahydrofuran	60 mins	Room Temperature
2374	Yes	Further cut	0.1	THF+HEXANE	60MIN	60
2375	Yes	Further cut	0.1g	THF	30 min	Room temperature
2376	Yes	---	---	---	---	---
2378	Yes	Used as received	0.05g	15mL	60mins	60
2379	Yes	Further cut	0.75 gram	Diethyl ether	6 hr.	60 C
2380	Yes	Used as received	0.1 g	Tetrahydrofuran (THF)	60 Minutes	60 °C
2381	Yes	Further cut	0.1 gms	THF and n-Hexane.	60 minutes.	60.
2382	Yes	Further cut	0.1g	Tetrahydrofuram	60min	60℃
2384	Yes	Further cut	0.3g	tetrahydrofuran	60min	60°C
2386	Yes	Used as received	0,5g	THF	60 Minutes	60 °C
2387	Yes	Further cut	0.3g	THF, ACN	60	60
2390	Yes	Further cut	0.1 gram	THF + n-Hexane	60 minute	60 °C
2392	Yes	Further grinded	1.5 g	THF : ACN 1 : 2	60 minutes	60 degree celsius
2406	Yes	Further cut	0.05 g	Tetrahydrofuran	60 minutes	Room temperature
2413	Yes	Used as received	21595: 0.1500 21596:0.1505	THF / Hexane	30 minutes	40 Degrees C
2415	Yes	Further cut	0.3	THF/n-Hexane 1:2	60	60
2426	Yes	Further cut	#21595 0.0590g #21596 0.0500g	THF & n-Hexane (1:2)	30 minutes	24°C
2429	Yes	Further cut	0.05g	THF/hexane	60min	60
2431	Yes	Further cut	0.05g	THF, n-Hexane	30mins	Room temperature
2442	Yes	Further cut	0.10 gram	THF & Acetonitrile	30 min ultrasonic & 30 min cool down	40
2453	---	---	---	---	---	---
2459	---	---	---	---	---	---
2460	Yes	Further cut	0.05 g	THF:HEXANE	45 min	24°C
2462	---	---	---	---	---	---
2464	Yes	Further cut	approx. 0.0500	THF	120 minutes	23
2475	Yes	Used as received	0.1	Toluene	60	60
2476	Yes	Further cut	0.15 gm	THF/Acetonitrile	60 min	23.5°C
2477	Yes	Further cut	0.05	thf / n-hexanes	45	22
2482	Yes	Used as received	0.5	Toluene	60	60
2489	Yes	Further cut	0.3012/0.3026g	THF/n-Hexane	30 minutes	30 degree
2492	Yes	Used as received	0.3g	THF : Hexane (1:2)	60 minutes	60 degree
2500	Yes	Further cut	0.3g	THF	120 minutes	40 °C
2503	Yes	Used as received	.05	THF / n-Hexane	90	70
2504	Yes	Further cut	0.05 gram	THF / Hexane	30 min	room temperature
2507	Yes	Further grinded	0.05 g	THF/ Hexane (1:2)	30 min (extraction) mech. shak 15 min	35ºC
2509	Yes	Further cut	0.1566 g	THF + n-Hexane (1:2)	60 min	25
2510	---	---	---	---	---	---
2511	Yes	Used as received	---	---	---	---
2515	Yes	Used as received	around 0.3gram	THF sonicate extract. / ACN for precipitation	30 minutes	40C
2522	Yes	Further cut	0.1 g	THF	150 min	Room Temperature
2529	No	Used as received	0.050 grams in triplicate	5 mL of THF, 10 mL acetonitrile	30 minutes	N/A
2532	Yes	**	0.1 grams	THF / n-Hexane	30 Minutes	Room Temp.
2538	Yes	Further cut	4 x 0,3 g each sample	THF before extraction Hexane after extract.	120 min	60 °C
2553	Yes	Further cut	0.3g	THF(Tetrahydrofuran)	30	40
2560	Yes	Further cut	0.3 gm	Tetrahydrofuran & n-Hexane mixture	60 minutes	60°C
2567	Yes	Further cut	--	THF & N-hexane	30 min	30 minutes
2570	Yes	Further cut	0.05gm	Tetrahydrofuran & Hexane mixture	40min	30°C
2572	---	---	---	---	---	---
2582	Yes	Further cut	#21595: 0.0576 #21596: 0.0539	Tetrahydrofuran	30 minutes	25
2590	Yes	Used as received	0.3g	thf:hex 10 : 20	60 min	60°C
2602	Yes	Used as received	0,3g	Tetrahydrofuran	60 min.	60 °C
2605	Yes	Further cut	2mm*2mm 0.010g	THF/Hexane	150	room temperature
2620	No	Further cut	0.030g	Toluene	60min	60°C
2629	Yes	Further cut	0.3g	THF	60	60

Lab	ISO17025 accredited	sample further grinded or cut	sample intake (g)	extraction solvent	extraction time (min)	extraction temp (°C)
2643	No	---	0.05 g	THF + Hexane	60	60
2665	Yes	Used as received	0,5	THF	until completely dissolved	40
2674	Yes	Further cut	2.0g	THF/n-Hexane	N.A	N.A
2678	No	Further cut	0.05	THF/Hexane	60	60
2701	Yes	Used as received	3 g	THF	2 hrs	40 °C
2720	Yes	Further cut	0.05g	Tetrahydrofuran with n-hexane	60min	room temperature
2734	Yes	Further cut	0.4 g	THF	60	40°C
2736	Yes	Further cut	0.5	15 mL THF	1 Hr	room temp
2737	Yes	Further cut	0.3gram	THF/n-Hexane=1:2	60min	60℃
2741	Yes	Further cut	0.5 grams	THF:n-hexane		
2743	Yes	Used as received	0,3g	THF/HEXANE 1:2	60 min.	60°C
2773	Yes	Further cut	0.1000g	THF:N-hexane	30 Minutes.	Room temperature
2810	No	Further cut	0,05 g	THF	1 hour 30 minutes	T=20-40°C
2821	Yes	Used as received	0,5g	toluene	60min	60°C
2826	Yes	Further cut	0.3g	THF + Acetonitrile	30 mins	25oC
2829	Yes	Further cut	0.05	THF/hexane	30	30
2835	Yes	Further cut	0.5g	Methylene chloride	5 min	100
2836	No	Further cut	0.1g	THF / acetonitrile	30 minutes.	Room temperature
2862	Yes	Further cut	50 mg	THF / ethanol	120 minutes	22-23 °C
2864	Yes	Used as received	0.05g	THF+Hexane	60	60
2867	Yes	Used as received	0.3g	THF and acetonitrile	60 minutes	60℃
2870	Yes	Further cut	0.3 gm	THF: n-Hexane (1:2)	60 minutes	60 degree C
2892	Yes	Used as received	0.5g	THF:n Hexane	30 min	40
2910	No	Further cut	0.5g	THF and hexane	30	40
2914	Yes	Used as received	500mg	THF	120min	Room temperature
2916	No	Further grinded	0,5	Hexane	360	69
2942	No	Used as received	0,050	THF	60 min	room temperature
2959	No	Further cut	0.3g	THF:n-Hexane(1:2)	60min	60
3100	Yes	Further cut	0.0566g	dichloromethane	6 hours	---
3110	---	---	---	---	---	---
3116	Yes	Used as received	1g	Dichloromethane	360 mins	Reflux
3118	Yes	Further cut	0.1	Tetrahydrofuran	30 + 120	room temperature
3153	Yes	Used as received	0.1g	Tetrahydrofuran	150 minutes	Room temperature
3163	No	Further cut	0.0005	none	none	none
3166	Yes	Used as received	0.25	DCM	---	ambient
3172	---	---	---	---	---	---
3176	Yes	Further cut	0,1	THF/ACN	30	Room Temperature
3182	Yes	Further grinded	0.05 g	THF:n-Hexane (1:2)	120 mins	Room Temperature
3185	Yes	Further cut	0.05g	Tetrahydrofuran	Shake for 150min	Room temperature.
3200	Yes	Further cut	---	---	---	---
3209	Yes	Further cut	0.05g	THF and n-hexane	60min	room temp
3210	---	---	---	---	---	---
3214	Yes	Further cut	0.5 gram	THF/n-Hexane	1 hr	70 °C
3218	Yes	Used as received	0.05g	Tetrahydrofuran/TFH	60min	60
3225	Yes	Further cut	0.2	THF:n-hexane	60	70
3228	Yes	Further cut	2g	THF & Hexane	N.A.	N.A
3237	Yes	Further cut	0,1 gr	Hexane/ THF (2:1)	30	40
3239	Yes	Further grinded	0.1g	Hexane	360min	150degC
3248	Yes	Further cut	0.05g	THF+ACN (1:2)	30mins	room temperature
8005	Yes	Used as received	1g	acetone/n-hexane (3:7)	720 mins	40°C
8008	---	---	---	---	---	---
8015	Yes	Further cut	50 mg	THF	15	20
8030	Yes	Further cut	1 gram	Hexane : Acetone	12 hr.	40 C

*) lab 1051: The number of cycle at least 4 times per hour
**) lab 2532: The retention time of DINP in the sample #21595 was shifted in relation to our standard.

APPENDIX 4

Number of participants per country

4 labs in BANGLADESH
2 labs in BRAZIL
1 lab in BULGARIA
2 labs in CAMBODIA
1 lab in CANADA
1 lab in CZECH REPUBLIC
1 lab in EGYPT
1 lab in FINLAND
3 labs in FRANCE
12 labs in GERMANY
2 labs in GUATEMALA
20 labs in HONG KONG
12 labs in INDIA
2 labs in INDONESIA
1 lab in IRELAND
7 labs in ITALY
2 labs in JAPAN
1 lab in LATVIA
3 labs in MALAYSIA
1 lab in MAURITIUS
2 labs in MEXICO
1 lab in MOROCCO
34 labs in P.R. of CHINA
3 labs in PAKISTAN
1 lab in PHILIPPINES
1 lab in PORTUGAL
1 lab in SERBIA
4 labs in SINGAPORE
1 lab in SLOVAKIA
8 labs in SOUTH KOREA
2 labs in SPAIN
3 labs in SRI LANKA
1 lab in SWITZERLAND
5 labs in TAIWAN
6 labs in THAILAND
3 labs in THE NETHERLANDS
2 labs in TUNISIA
5 labs in TURKEY
8 labs in U.S.A.
1 lab in UNITED KINGDOM
9 labs in VIETNAM

APPENDIX 5

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) / R1	= outlier in Rosner's outlier test
R(0.05) / R5	= straggler in Rosner's outlier test
E	= calculation difference between reported test result and result calculated by iis
W	= test result withdrawn on request of participant
ex	= test result excluded from statistical evaluation
n.a.	= not applicable
n.e.	= not evaluated
n.d.	= not detected
f+?	= possibly a false positive test result?
f-?	= possibly a false negative test result?

Literature

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