



Institute for
Interlaboratory Studies

Results of Proficiency Test Total Phthalates in Polymers June 2022

Organized by: Institute for Interlaboratory Studies
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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 determination of Phthalates in Polymers every year. During the annual proficiency testing program of 2021/2022 it was decided to continue the proficiency test for the determination of Phthalates in Polymers.

In this interlaboratory study 182 laboratories in 35 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 #22620 and #22621. 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 red PVC granules was selected which was made positive on some Phthalates. After homogenization 200 subsamples of approximately 3 grams each were prepared and labelled #22620. This batch has been used before in the PT on Phthalates in Polymers iis16P04 (sample #16560). Therefore, homogeneity of the subsamples was assumed.

A batch of blue PVC rings was selected which was made positive with some Phthalates. After homogenization 200 subsamples of approximately 3 grams each were prepared and labelled #22621.

The homogeneity of the subsamples was checked by the determination of the added Phthalates using an in house method on 8 stratified randomly selected subsamples.

	BBP in %M/M	DBP in %M/M	DEHP in %M/M	DIBP in %M/M
sample #22621-1	0.0529	0.0473	0.0549	0.0492
sample #22621-2	0.0530	0.0485	0.0548	0.0495
sample #22621-3	0.0527	0.0474	0.0557	0.0493
sample #22621-4	0.0521	0.0466	0.0540	0.0486
sample #22621-5	0.0527	0.0476	0.0555	0.0501
sample #22621-6	0.0520	0.0462	0.0543	0.0489
sample #22621-7	0.0517	0.0456	0.0540	0.0487
sample #22621-8	0.0514	0.0459	0.0527	0.0482

Table 1: homogeneity test results of subsamples #22621

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	DBP in %M/M	DEHP in %M/M	DIBP in %M/M
r (observed)	0.0017	0.0027	0.0027	0.0017
reference method	iis memo 1701	iis memo 1701	iis memo 1701	iis memo 1701
0.3 x R (reference method)	0.0070	0.0063	0.0073	0.0066

Table 2: evaluation of the repeatabilities of subsamples #22621

The calculated repeatabilities are 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 #22620 and one sample labelled #22621 were sent on May 11, 2022.

2.5 ANALYZES

The participants were requested to determine on samples #22620 and #22621 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 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 appendices 1 and 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 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) 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. 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:

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

The $z_{(\text{target})}$ 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 no problems were encountered with the dispatch of the samples. Twenty participants reported test results after the final reporting date and one other participant was not able to report any test results. Not all participants were able to report all components requested.

In total 181 participants reported 1276 numerical test results. Observed were 43 outlying test results, which is 3.4%. 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 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 Phthalates ranges from 31.5% - 124.9%.

In 2017 iis decided 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% of the mean (iis memo 1701) multiplied by 2.8. This was used for the evaluation of the test results in this PT.

sample #22620

DEHP: This determination was not problematic. Seven 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. Six 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.

DNOP: 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 target reproducibility as derived from iis memo 1701.

DMP: 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.

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

sample #22621

BBP: This determination was not problematic. Six 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. Six 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. Seven 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.

DIBP: 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 the detection limit. 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 ($2.8 * \text{standard deviation}$) and the target reproducibility are presented in the next tables.

Component	unit	n	average	$2.8 * \text{sd}$	R(target)
DEHP	%M/M	173	0.145	0.039	0.065
DBP	%M/M	173	0.271	0.081	0.122
DNOP	%M/M	99	0.193	0.083	0.086
DMP	%M/M	106	0.066	0.023	0.030

Table 3: reproducibilities of tests on sample #22620

Component	unit	n	average	2.8 * sd	R(target)
BBP	%M/M	172	0.052	0.017	0.023
DEHP	%M/M	172	0.060	0.024	0.027
DBP	%M/M	171	0.051	0.012	0.023
DIBP	%M/M	167	0.051	0.012	0.023

Table 4: reproducibilities of tests on sample #22621

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 JUNE 2022 WITH PREVIOUS PTS

	June 2022	May 2021	June 2020	June 2019	May 2018
Number of reporting laboratories	181	178	162	202	188
Number of test results	1276	1010	1255	1475	1289
Number of statistical outliers	43	27	41	47	60
Percentage of statistical outliers	3.4%	2.7%	3.3%	3.2%	4.7%

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 to uncertainties observed in PTs over the years, expressed as relative standard deviation (RSD) of the PTS, see next table.

Component	June 2022	May 2021	June 2020	June 2019	2018-2006	Target
BBP	11%	15%	12%	--	11 - 25%	16%
DEHP	10 - 14%	12 - 14%	12%	15%	12 - 29%	16%
DBP	8 - 11%	11%	13%	14%	10 - 28%	16%
DIDP	--	14%	20%	16%	15 - 27%	16%
DINP ¹⁾	--	14%	--	23%	12 - 33%	16%
DNOP	15%	--	--	--	15 - 23%	16%
DCHP	--	--	13%	--	11 - 16%	16%
DEP	--	--	--	14 - 15%	8 - 13%	16%
DMP	12%	--	12 - 15%	14%	12%	16%
DNHP	--	--	--	--	10 - 17%	16%
DIBP	9%	--	11%	11%	9 - 16%	16%
DNPP	--	--	--	--	14 - 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 all 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 for the reported details. Based on the answers given by the participants the following can be summarized:

- About 60% of the participants reported to have used CPSC-CH-C1001-09.4 as test method, about 10% of the participants reported to have used IEC62321-8 and about 30% of the participants reported to have used an in-house method or other different test method.
- About 50% of the participants used the sample as received and about 55% after further cut and about 5% after further grinded.
- About 75% of the participants used less than 0.5 grams as sample intake, about 15% used 0.5 grams and about 10% used more than 0.5 grams as sample intake.
- In this proficiency test the majority (80%) of the participants reported to have used THF as extraction solvent.
- About 45% of the participants reported for extraction time 60 mins, about 20% 2 hrs or more and about 20% have reported 30 mins.
- About 15% of the participants reported for extraction temperature 30°C, 25% roomtemperature and about 35% 60°C.

As the majority of the group follow the same analytical procedures no separate statistical analysis has been performed.

5 DISCUSSION

Sample #22620 was used earlier as sample #16560 in iis16P04 (2016). In table 7 a comparison is given over the two proficiency tests.

	unit	sample #22620			sample #16560		
		n	average	R(calc)	n	average	R(calc)
DEHP	%M/M	173	0.145	0.039	156	0.145	0.053
DBP	%M/M	173	0.271	0.081	163	0.271	0.090
DNOP	%M/M	99	0.193	0.083	125	0.180	0.090
DMP	%M/M	106	0.066	0.023	86	0.066	0.022

Table 7: comparison of sample #22620 with sample #16560

It is observed that the group in this PT performed in line with the previous determination of DEHP, DBP, DNOP and DMP.

6 CONCLUSION

The majority of the group identified all added Phthalates correctly: #22620 contained DEHP, DBP, DMP and DNOP and sample #22621 contained BBP, DEHP, DBP and DIBP.

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 have rejected both samples #22620 and #22621 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 #22620; results in %M/M

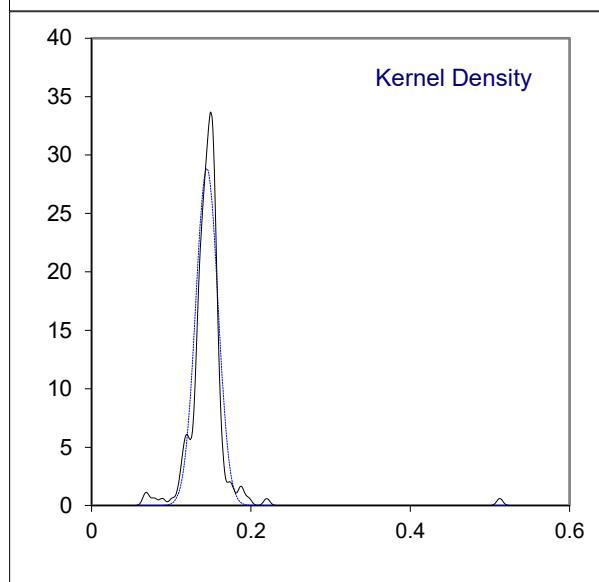
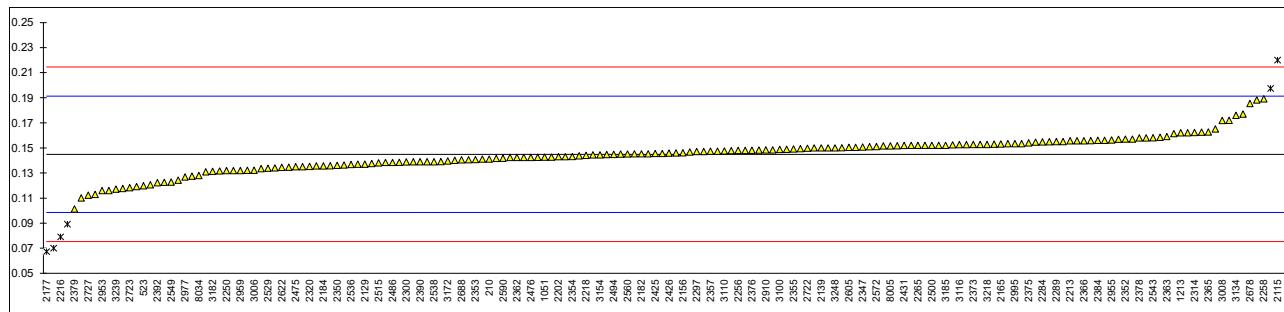
lab	method	value	mark	z(targ)	lab	method	value	mark	z(targ)
210	CPSC-CH-C1001-09.4	0.14103		-0.17	2373	CPSC-CH-C1001-09.4	0.1527		0.34
310	-----	-----		-----	2375	CPSC-CH-C1001-09.4	0.154		0.39
339	CPSC-CH-C1001-09.4	0.153		0.35	2376	ST2016	0.1482		0.14
523	CPSC-CH-C1001-09.4	0.1197		-1.09	2378	ISO14389	0.158		0.57
551	CPSC-CH-C1001-09.4	0.1769		1.38	2379	JFSL336/ST2016	0.1013		-1.88
622	IEC62321-8	0.1410		-0.17	2380	CPSC-CH-C1001-09.4	0.15267		0.34
623	In house	0.137		-0.34	2381	CPSC-CH-C1001-09.4	0.1545		0.42
826	IEC62321-8	0.139		-0.25	2382	ISO14389	0.1558		0.47
840	CPSC-CH-C1001-09.4	0.145		0.01	2384	IEC62321-8	0.15597		0.48
841	In house	0.1424		-0.11	2386	CPSC-CH-C1001-09.4	0.1426		-0.10
1051	GB/T22048	0.1426		-0.10	2387	IEC62321-8	0.1128		-1.38
1213	CPSC-CH-C1001-09.4	0.162		0.74	2390	CPSC-CH-C1001-09.4	0.1390		-0.25
2102		0.1309		-0.60	2392	IEC62321-8	0.1221		-0.98
2104	CPSC-CH-C1001-09.4	0.1974	C, R5	2.27	2406	CPSC-CH-C1001-09.4	0.1453		0.02
2108	EN14389	0.134	C	-0.47	2410	CPSC-CH-C1001-09.4	0.158		0.57
2115	CPC-CH-C1001-09.4	0.22	R1	3.24	2425	In house	0.1455		0.03
2121	ISO14389	0.15		0.22	2426	CPSC-CH-C1001-09.4	0.1459		0.04
2129	CPSC-CH-C1001-09.3	0.1370		-0.34	2429	CPSC-CH-C1001-09.4	0.1613		0.71
2132	CPSC-CH-C1001-09.4	0.1405		-0.19	2431	CPSC	0.1519		0.30
2137	KS M1991	0.1515		0.29	2442	CPSC-CH-C1001-09.4	0.136271		-0.37
2138	CPSC-CH-C1001-09.4	0.1389		-0.26	2460	CPSC-CH-C1001-09.4	0.152		0.31
2139	CPSC-CH-C1001-09.4	0.150		0.22	2474	ISO8124-6	0.1391		-0.25
2146	In house	0.1357		-0.40	2475		0.1350		-0.43
2156	CPSC-CH-C1001-09.4	0.1461		0.05	2476	CPSC-CH-C1001-09.4	0.1424		-0.11
2165	CPSC-CH-C1001-09.4	0.1531		0.36	2486	In house	0.13840773		-0.28
2170	CPSC-CH-C1001-09.4	0.1505		0.24	2492	GB/T20388	0.1569		0.52
2177	In house	0.067316	R1	-3.35	2494	CPSC-CH-C1001-09.4	0.14476		0.00
2179		0.13836254		-0.28	2500	CPSC-CH-C1001-09.4	0.152		0.31
2182		0.1453		0.02	2504	IEC62321-8	0.1322		-0.55
2184	CPSC-CH-C1001-09.4	0.1356		-0.40	2507	CPSC-CH-C1001-09.3	0.157		0.52
2201	CPSC-CH-C1001-09.4	0.1556		0.46	2510	In house	0.162		0.74
2202	IEC62321-8	0.1430		-0.08	2511	ISO16181-1	0.1225		-0.96
2213	CPSC-CH-C1001-09.4	0.1556		0.46	2514	ISO14389	0.142466		-0.10
2216	IEC62321-8	0.079	R1	-2.84	2515	CPSC-CH-C1001-09.4	0.138		-0.30
2218		0.1440		-0.04	2522	CPSC-CH-C1001-09.4	0.148		0.14
2236	In house	0.1385		-0.27	2529	CPSC-CH-C1001-09.4	0.13372		-0.48
2250	CPSC-CH-C1001-09.3	0.132		-0.55	2536	CPSC-CH-C1001-09.4	0.1368		-0.35
2255	CPSC-CH-C1001-09.4	0.1455		0.03	2538	In house	0.1390		-0.25
2256	ISO8124-6	0.148		0.14	2543	NBR16040	0.1581		0.57
2258	CPSC-CH-C1001-09.4	0.18919		1.91	2549	ISO14389	0.1228		-0.95
2265	CPSC-CH-C1001-09.4	0.152		0.31	2560		0.1451		0.01
2267		0.5123	R1	15.85	2567	CPSC-CH-C1001-09.4	0.1625		0.76
2284	CPSC-CH-C1001-09.4	0.1548		0.43	2569	CPSC-CH-C1001-09.4	0.14		-0.21
2286	JFSL	0.156		0.48	2572	CPSC-CH-C1001-09.4	0.151		0.26
2288	CPSC-CH-C1001-09.3	0.15234		0.32	2590	CPSC-CH-C1001-09.4	0.1417		-0.14
2289	CPSC-CH-C1001-09.4	0.155		0.44	2605	CPSC-CH-C1001-09.4	0.1504		0.24
2290	CPSC-CH-C1001-09.4	0.152		0.31	2622	ISO16181-1	0.1345	C	-0.45
2295	CPSC-CH-C1001-09.4	0.1446		-0.01	2668	CPSC-CH-C1001-09.4	0.132		-0.55
2297	CPSC-CH-C1001-09.4	0.147		0.09	2674	CPSC-CH-C1001-09.4	0.1444		-0.02
2300	ISO14389	0.1388		-0.26	2678	CPSC-CH-C1001-09.4	0.1854		1.75
2301	CPSC-CH-C1001-09.3	0.1101	C	-1.50	2688	KS M1991	0.14037		-0.19
2310	ISO14389	0.172		1.17	2720	CPSC-CH-C1001-09.4	0.1533		0.36
2311	CPSC-CH-C1001-09.4	0.150		0.22	2722	CPSC-CH-C1001-09.4	0.1497		0.21
2313	ISO14389	0.1471		0.10	2723	ISO16181-1	0.1183		-1.15
2314	ISO14389	0.1623		0.75	2727	ISO16181-1	0.1122		-1.41
2316	IEC62321-8	0.16511		0.87	2736	In house	<0.01	f?	<-5.82
2320	CPSC-CH-C1001-09.4	0.135169		-0.42	2737	ISO16181-1	0.135532	C	-0.40
2330	CPSC-CH-C1001-09.4	0.13154		-0.57	2741	ISO14389	0.1467		0.08
2347	CPSC-CH-C1001-09.4	0.1507		0.25	2758		0.1191	C	-1.11
2350	CPSC-CH-C1001-09.4	0.136		-0.38	2798	CPSC-CH-C1001-09.4	0.152		0.31
2352	CPSC-CH-C1001-09.4	0.157		0.52	2826	CPSC-CH-C1001-09.4	0.1416		-0.14
2353	IEC62321-8	0.1406		-0.18	2827	In house	0.1501		0.23
2354	CPSC-CH-C1001-09.4	0.1431		-0.08	2829	CPSC-CH-C1001-09.4	0.1242		-0.89
2355	CPSC-CH-C1001-09.4	0.1491		0.18	2835	EPA3545A/8270E	0.133426		-0.49
2357	EN14372	0.1473		0.11	2846	IEC62321-8	0.1346		-0.44
2361	GB/T22048	0.1423		-0.11	2864	CPSC-CH-C1001-09.4	0.143706		-0.05
2362	ISO8124-6	0.1423		-0.11	2900	IEC62321-8	0.1375	C	-0.32
2363	CPSC-CH-C1001-09.3	0.159		0.61	2910	CPSC-CH-C1001-09.4	0.1484		0.15
2365	CPSC-CH-C1001-09.4	0.1626		0.77	2948	CPSC-CH-C1001-09.4	0.127526	C	-0.75
2366	CPSC-CH-C1001-09.4	0.1557		0.47	2953	CPSC-CH-C1001-09.4	0.116		-1.25
2369	CPSC-CH-C1001-09.4	0.1509		0.26	2955	CPSC-CH-C1001-09.4	0.1562		0.49
2370	CPSC-CH-C1001-09.4	0.146		0.05	2959	CPSC-CH-C1001-09.4	0.132		-0.55

lab	method	value	mark	z(targ)	lab	method	value	mark	z(targ)
2960	CPSC-CH-C1001-09.4	0.1517	C	0.30	3185	CPSC-CH-C1001-09.4	0.1520		0.31
2977	CPSC-CH-C1001-09.4	0.12670		-0.78	3190	CPSC-CH-C1001-09.4	0.1494		0.20
2979		0.188175	C	1.87	3199	In house	0.143		-0.08
2995	EN62321-8	0.153335		0.37	3200	CPSC-CH-C1001-09.4	0.1534		0.37
3005		0.1478		0.13	3209	CPSC-CH-C1001-09.4	0.135		-0.43
3006	IEC62321-8	0.1322	C	-0.55	3210	In house	0.1160		-1.25
3007	In house	0.117622		-1.18	3214	CPSC-CH-C1001-09.4	0.1527		0.34
3008	In house	0.1718		1.16	3218	CPSC-CH-C1001-09.3	0.1527		0.34
3100	CPSC-CH-C1001-09.4	0.1488		0.17	3225	CPSC-CH-C1001-09.4	0.1473		0.11
3110	CPSC-CH-C1001-09.4	0.1475		0.11	3230	In house	0.14887365		0.17
3116	CPSC-CH-C1001-09.4	0.1526		0.33	3233	In house	0.155		0.44
3118	CPSC-CH-C1001-09.4	0.1584	C	0.58	3237	CPSC-CH-C1001-09.4	0.1452	C	0.01
3134	In house	0.176		1.34	3239	IEC62321-8	0.1171	C	-1.20
3153	CPSC-CH-C1001-09.4	0.1483		0.15	3248	CPSC-CH-C1001-09.4	0.150		0.22
3154	In house	0.1444		-0.02	8005	ISO8124-6	0.1515		0.29
3163	CPSC-CH-C1001-09.3	0.07	R1	-3.23	8008	JTSS ST2016	0.1549		0.43
3172	ISO8124-6	0.1396		-0.23	8030	CPSC-CH-C1001-09.4	0.1206		-1.05
3176	EN14372	0.0891	R5	-2.41	8034	In house	0.128		-0.73
3182	CPSC-CH-C1001-09.4	0.1312		-0.59	8035	In house	0.1484		0.15

normality suspect
n 173
outliers 7
mean (n) 0.14486
st.dev. (n) 0.013837 RSD = 10%
R(calc.) 0.03874
st.dev.(iis memo 1701) 0.023177
R(iis memo 1701) 0.06490

lab 2104 first reported 1974 %M/M
lab 2108 first reported 0.0675
lab 2301 first reported 0.0946
lab 2622 first reported 0.0947
lab 2737 first reported 0.1097807
lab 2758 first reported 0.0986
lab 2900 first reported 0.1796

lab 2948 reported 1275.26 %M/M
lab 2960 reported 1517 %M/M
lab 2979 first reported 0.2249
lab 3006 first reported 0.1057
lab 3118 first reported 0.1966
lab 3237 first reported 0.1069
lab 3239 first reported 0.0066



Determination of DBP - Dibutyl phthalate on sample #22620; results in %M/M

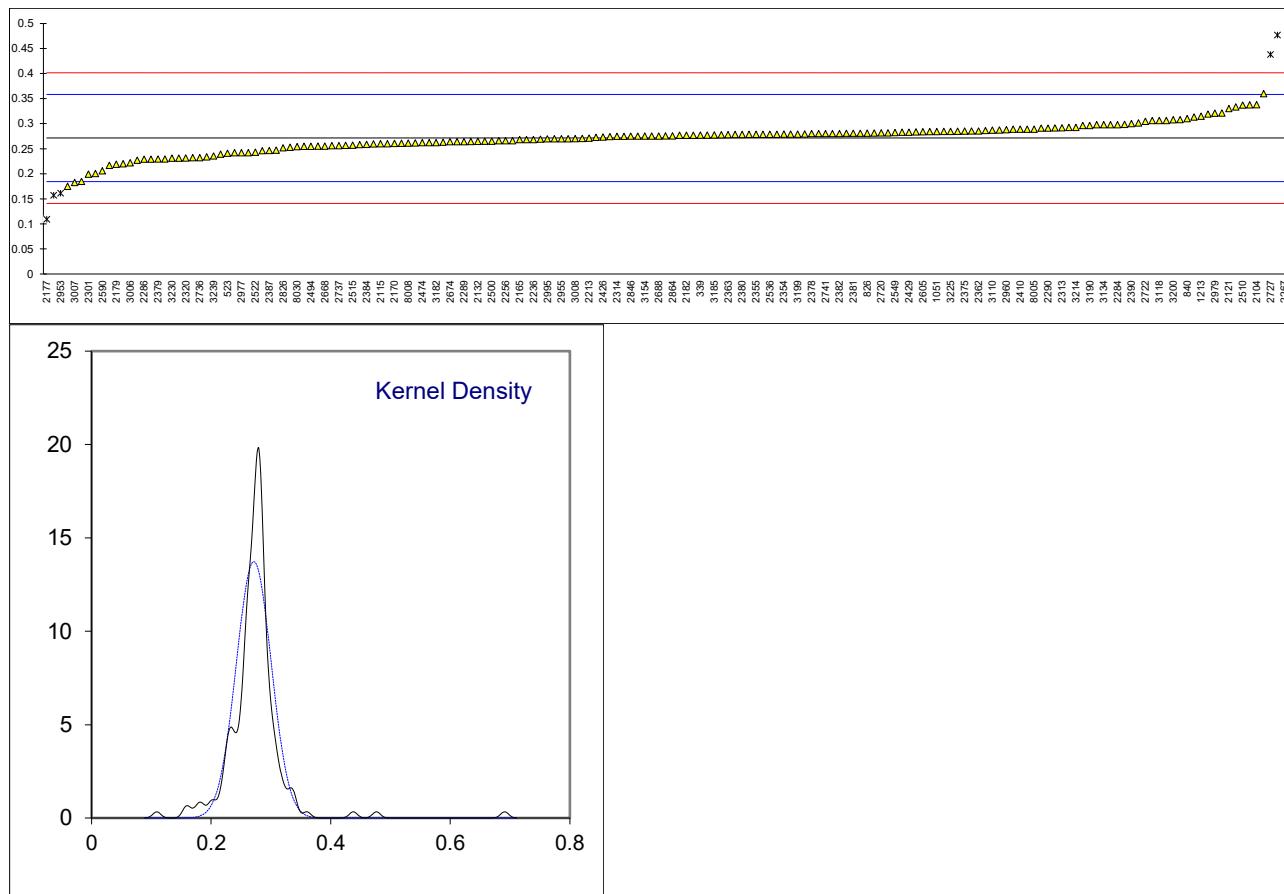
lab	method	value	mark	z(targ)	lab	method	value	mark	z(targ)
210	CPSC-CH-C1001-09.4	0.255842		-0.36	2373	CPSC-CH-C1001-09.4	0.2843		0.30
310	-----	-----		-----	2375	CPSC-CH-C1001-09.4	0.285		0.31
339	CPSC-CH-C1001-09.4	0.277		0.13	2376	ST2016	0.2834		0.28
523	CPSC-CH-C1001-09.4	0.2407		-0.71	2378	ISO14389	0.28		0.20
551	CPSC-CH-C1001-09.4	0.2168		-1.26	2379	JFSL336/ST2016	0.2293		-0.97
622	IEC62321-8	0.3377		1.53	2380	CPSC-CH-C1001-09.4	0.27829		0.16
623	In house	0.291		0.45	2381	CPSC-CH-C1001-09.4	0.2808		0.22
826	IEC62321-8	0.281		0.22	2382	ISO14389	0.2802		0.20
840	CPSC-CH-C1001-09.4	0.310		0.89	2384	IEC62321-8	0.25856		-0.29
841	In house	0.3012		0.69	2386	CPSC-CH-C1001-09.4	0.2771		0.13
1051	GB/T22048	0.2842		0.30	2387	IEC62321-8	0.2464		-0.57
1213	CPSC-CH-C1001-09.4	0.315		1.01	2390	CPSC-CH-C1001-09.4	0.30	C	0.66
2102		0.2419		-0.68	2392	IEC62321-8	0.2754		0.09
2104	CPSC-CH-C1001-09.4	0.3378	C	1.53	2406	CPSC-CH-C1001-09.4	0.2926		0.49
2108	EN14389	0.227	C	-1.02	2410	CPSC-CH-C1001-09.4	0.289		0.41
2115	CPC-CH-C1001-09.4	0.26		-0.26	2425	In house	0.2660		-0.12
2121	ISO14389	0.33		1.35	2426	CPSC-CH-C1001-09.4	0.2733		0.05
2129	CPSC-CH-C1001-09.3	0.2473		-0.55	2429	CPSC-CH-C1001-09.4	0.2829		0.27
2132	CPSC-CH-C1001-09.4	0.2648		-0.15	2431	CPSC	0.2889		0.40
2137	KS M1991	0.2548		-0.38	2442	CPSC-CH-C1001-09.4	0.281679		0.24
2138	CPSC-CH-C1001-09.4	0.2698		-0.04	2460	CPSC-CH-C1001-09.4	0.265		-0.15
2139	CPSC-CH-C1001-09.4	0.232		-0.91	2474	ISO8124-6	0.2621		-0.21
2146	In house	0.1748		-2.22	2475		0.2785		0.17
2156	CPSC-CH-C1001-09.4	0.2529		-0.42	2476	CPSC-CH-C1001-09.4	0.2582		-0.30
2165	CPSC-CH-C1001-09.4	0.2680		-0.08	2486	In house	0.28081279		0.22
2170	CPSC-CH-C1001-09.4	0.2604		-0.25	2492	GB/T20388	0.2778		0.15
2177	In house	0.10896	R1	-3.74	2494	CPSC-CH-C1001-09.4	0.25485		-0.38
2179		0.21915542		-1.20	2500	CPSC-CH-C1001-09.4	0.265		-0.15
2182		0.2768		0.13	2504	IEC62321-8	0.2420		-0.68
2184	CPSC-CH-C1001-09.4	0.2807		0.22	2507	CPSC-CH-C1001-09.3	0.263		-0.19
2201	CPSC-CH-C1001-09.4	0.2846		0.31	2510	In house	0.337		1.51
2202	IEC62321-8	0.2750		0.08	2511	ISO16181-1	0.2549		-0.38
2213	CPSC-CH-C1001-09.4	0.2712		0.00	2514	ISO14389	0.276712		0.12
2216	IEC62321-8	0.264		-0.17	2515	CPSC-CH-C1001-09.4	0.257		-0.33
2218		0.2680		-0.08	2522	CPSC-CH-C1001-09.4	0.243		-0.65
2236	In house	0.2680		-0.08	2529	CPSC-CH-C1001-09.4	0.27853		0.17
2250	CPSC-CH-C1001-09.3	0.246		-0.58	2536	CPSC-CH-C1001-09.4	0.2785		0.17
2255	CPSC-CH-C1001-09.4	0.2700		-0.03	2538		-----		-----
2256	ISO8124-6	0.266		-0.12	2543	NBR16040	0.3190		1.10
2258	CPSC-CH-C1001-09.4	0.47657	R1	4.73	2549	ISO14389	0.2821		0.25
2265	CPSC-CH-C1001-09.4	0.306		0.80	2560		0.2875		0.37
2267		0.6911	R1	9.67	2567	CPSC-CH-C1001-09.4	0.298		0.61
2284	CPSC-CH-C1001-09.4	0.2981		0.62	2569	CPSC-CH-C1001-09.4	0.28		0.20
2286	JFSL	0.229		-0.98	2572	CPSC-CH-C1001-09.4	0.289		0.41
2288	CPSC-CH-C1001-09.3	0.29620		0.57	2590	CPSC-CH-C1001-09.4	0.2059		-1.51
2289	CPSC-CH-C1001-09.4	0.264		-0.17	2605	CPSC-CH-C1001-09.4	0.2837		0.28
2290	CPSC-CH-C1001-09.4	0.291		0.45	2622	ISO16181-1	0.2313	C	-0.92
2295	CPSC-CH-C1001-09.4	0.2595		-0.27	2668	CPSC-CH-C1001-09.4	0.255		-0.38
2297	CPSC-CH-C1001-09.4	0.266		-0.12	2674	CPSC-CH-C1001-09.4	0.2639		-0.17
2300	ISO14389	0.36	C	2.04	2678	CPSC-CH-C1001-09.4	0.3213		1.15
2301	CPSC-CH-C1001-09.3	0.1992		-1.66	2688	KS M1991	0.27541		0.09
2310	ISO14389	0.2985		0.63	2720	CPSC-CH-C1001-09.4	0.2815		0.23
2311	CPSC-CH-C1001-09.4	0.2840		0.29	2722	CPSC-CH-C1001-09.4	0.3047		0.77
2313	ISO14389	0.2916		0.47	2723	ISO16181-1	0.3332		1.42
2314	ISO14389	0.2747		0.08	2727	ISO16181-1	0.4378	R1	3.83
2316	IEC62321-8	0.22946	C	-0.96	2736	In house	0.2322		-0.90
2320	CPSC-CH-C1001-09.4	0.231339		-0.92	2737	ISO16181-1	0.256089		-0.35
2330	CPSC-CH-C1001-09.4	0.27548		0.10	2741	ISO14389	0.2801		0.20
2347	CPSC-CH-C1001-09.4	0.2828		0.26	2758		0.2391	C	-0.74
2350	CPSC-CH-C1001-09.4	0.269		-0.05	2798	CPSC-CH-C1001-09.4	0.313		0.96
2352	CPSC-CH-C1001-09.4	0.2790		0.18	2826	CPSC-CH-C1001-09.4	0.2517		-0.45
2353	IEC62321-8	0.2785		0.17	2827	In house	0.2747		0.08
2354	CPSC-CH-C1001-09.4	0.2789		0.17	2829	CPSC-CH-C1001-09.4	0.2913		0.46
2355	CPSC-CH-C1001-09.4	0.2785		0.17	2835	EPA3545A/8270E	0.233497		-0.87
2357	EN14372	0.2782		0.16	2846	IEC62321-8	0.2749		0.08
2361	GB/T22048	0.2852		0.32	2864	CPSC-CH-C1001-09.4	0.275525		0.10
2362	ISO8124-6	0.2852		0.32	2900	IEC62321-8	0.2567		-0.34
2363	CPSC-CH-C1001-09.3	0.278		0.15	2910	CPSC-CH-C1001-09.4	0.2705		-0.02
2365	CPSC-CH-C1001-09.4	0.2802		0.20	2948	CPSC-CH-C1001-09.4	0.200275	C	-1.64
2366	CPSC-CH-C1001-09.4	0.2768		0.13	2953	CPSC-CH-C1001-09.4	0.161	R5	-2.54
2369	CPSC-CH-C1001-09.4	0.2643		-0.16	2955	CPSC-CH-C1001-09.4	0.2699		-0.03
2370	CPSC-CH-C1001-09.4	0.308		0.84	2959	CPSC-CH-C1001-09.4	0.229		-0.98

lab	method	value	mark	z(targ)	lab	method	value	mark	z(targ)
2960	CPSC-CH-C1001-09.4	0.2881	C	0.39	3185	CPSC-CH-C1001-09.4	0.2775		0.14
2977	CPSC-CH-C1001-09.4	0.24190		-0.68	3190	CPSC-CH-C1001-09.4	0.2962		0.57
2979		0.3208		1.14	3199	In house	0.279		0.18
2995	EN62321-8	0.269537		-0.04	3200	CPSC-CH-C1001-09.4	0.30756		0.83
3005		0.2614		-0.23	3209	CPSC-CH-C1001-09.4	0.260		-0.26
3006	IEC62321-8	0.2218		-1.14	3210	In house	0.1572	R5	-2.63
3007	In house	0.182364		-2.05	3214	CPSC-CH-C1001-09.4	0.2926		0.49
3008	In house	0.2703		-0.02	3218	CPSC-CH-C1001-09.3	0.2812		0.23
3100	CPSC-CH-C1001-09.4	0.2740		0.06	3225	CPSC-CH-C1001-09.4	0.2843		0.30
3110	CPSC-CH-C1001-09.4	0.2870		0.36	3230	In house	0.23114594		-0.93
3116	CPSC-CH-C1001-09.4	0.2863		0.34	3233	In house	0.298		0.61
3118	CPSC-CH-C1001-09.4	0.3060		0.80	3237	CPSC-CH-C1001-09.4	0.2609	C	-0.24
3134	In house	0.298		0.61	3239	IEC62321-8	0.2354		-0.83
3153	CPSC-CH-C1001-09.4	0.2621		-0.21	3248	CPSC-CH-C1001-09.4	0.306		0.80
3154	In house	0.2753		0.09	8005	ISO8124-6	0.2890		0.41
3163	CPSC-CH-C1001-09.3	0.22		-1.18	8008	JTSS ST2016	0.2610		-0.24
3172	ISO8124-6	0.2725		0.03	8030	CPSC-CH-C1001-09.4	0.2540		-0.40
3176	EN14372	0.1845		-2.00	8034		-----		
3182	CPSC-CH-C1001-09.4	0.2621		-0.21	8035	In house	0.2793		0.18

normality suspect
n 173
outliers 6
mean (n) 0.27134
st.dev. (n) 0.029074 RSD = 11%
R(calc.) 0.08141
st.dev.(iis memo 1701) 0.043414
R(iis memo 1701) 0.12156

lab 2104 first reported 3378 %M/M
lab 2108 first reported 0.1142
lab 2300 first reported 0.0997
lab 2316 first reported 0.18108
lab 2390 first reported 0.4292

lab 2622 first reported 0.164
lab 2758 first reported 0.2370
lab 2948 reported 2002.75 %M/M
lab 2960 reported 2881 %M/M
lab 3237 first reported 0.2296



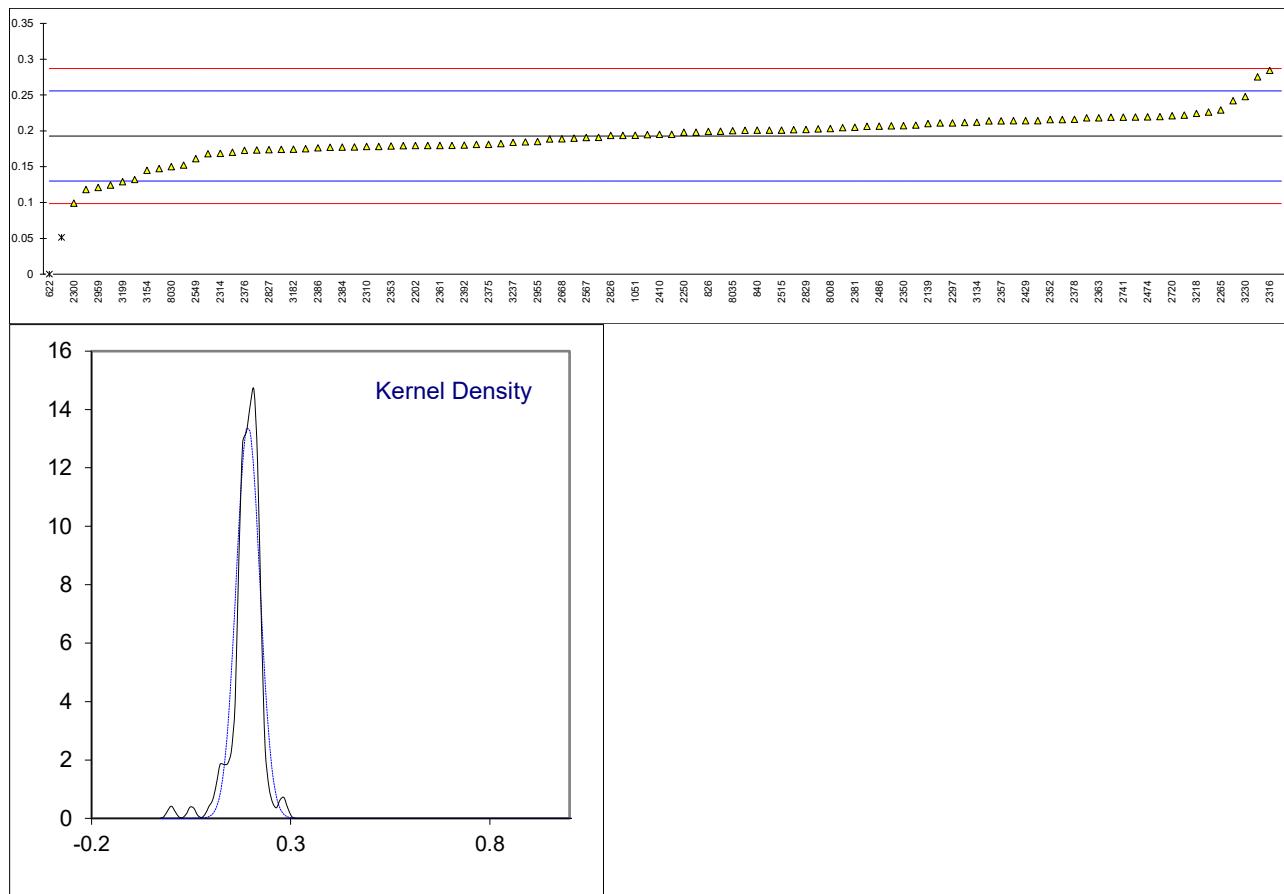
Determination of DNOP - Di-n-octyl phthalate on sample #22620; results in %M/M

lab	method	value	mark	z(targ)	lab	method	value	mark	z(targ)
210		----		----	2373	CPSC-CH-C1001-09.4	0.2141		0.69
310		----		----	2375	CPSC-CH-C1001-09.4	0.181		-0.38
339	CPSC-CH-C1001-09.4	not detected		----	2376	ST2016	0.1729		-0.64
523	CPSC-CH-C1001-09.4	not detected		----	2378	ISO14389	0.216		0.75
551	CPSC-CH-C1001-09.4	0.2198		0.88	2379	JFSL336/ST2016	0.1473		-1.47
622	IEC62321-8	0	C,R1	-6.25	2380	CPSC-CH-C1001-09.4	0.19364		0.03
623	In house	not detected		----	2381	CPSC-CH-C1001-09.4	0.2050		0.40
826	IEC62321-8	0.199		0.20	2382	ISO14389	0.2156		0.74
840	CPSC-CH-C1001-09.4	0.201		0.27	2384	IEC62321-8	0.17720		-0.51
841	In house	0.2139		0.68	2386	CPSC-CH-C1001-09.4	0.1763		-0.53
1051	GB/T22048	0.1937		0.03	2387		not analyzed		----
1213		Not applicable		----	2390		----		----
2102		Not detected		----	2392	IEC62321-8	0.1801		-0.41
2104	CPSC-CH-C1001-09.4	0.2753	C	2.67	2406	CPSC-CH-C1001-09.4	0.1947		0.06
2108	EN14389	0.174	C	-0.61	2410	CPSC-CH-C1001-09.4	0.195		0.07
2115		----		----	2425	In house	0.2068		0.45
2121		----		----	2426	CPSC-CH-C1001-09.4	0.1844		-0.27
2129	CPSC-CH-C1001-09.3	<0.02	f-?	<-5.60	2429	CPSC-CH-C1001-09.4	0.2140		0.69
2132	CPSC-CH-C1001-09.4	0.1908		-0.06	2431		----		----
2137		----		----	2442	CPSC-CH-C1001-09.4	0.201		0.27
2138	CPSC-CH-C1001-09.4	na		----	2460		----		----
2139	CPSC-CH-C1001-09.4	0.210		0.56	2474	ISO8124-6	0.2193		0.86
2146		not determined		----	2475		----		----
2156	CPSC-CH-C1001-09.4	<0.01	f-?	<-5.93	2476	CPSC-CH-C1001-09.4	0.1792		-0.44
2165		----		----	2486	In house	0.20636242		0.44
2170		----		----	2492		----		----
2177		----		----	2494	CPSC-CH-C1001-09.4	not detected		----
2179		----		----	2500	CPSC-CH-C1001-09.4	0.208		0.49
2182		----		----	2504		Not Analyzed		----
2184	CPSC-CH-C1001-09.4	not detected		----	2507		----		----
2201	CPSC-CH-C1001-09.4	0.2261		1.08	2510	In house	0.198		0.17
2202	IEC62321-8	0.1793		-0.44	2511		----		----
2213		----		----	2514	ISO14389	0.182192		-0.34
2216	IEC62321-8	Not Detected		----	2515	CPSC-CH-C1001-09.4	0.201		0.27
2218		----		----	2522		----		----
2236	In house	0.1732		-0.64	2529		----		----
2250	CPSC-CH-C1001-09.3	0.198		0.17	2536	CPSC-CH-C1001-09.4	0.2027		0.32
2255	CPSC-CH-C1001-09.4	0.1810		-0.38	2538		----		----
2256		----		----	2543	NBR16040	0.1181		-2.42
2258	CPSC-CH-C1001-09.4	not detected		----	2549	ISO14389	0.1611		-1.03
2265	CPSC-CH-C1001-09.4	0.229		1.17	2560		<0.01	f-?	<-5.93
2267		----		----	2567	CPSC-CH-C1001-09.4	0.1905		-0.07
2284	CPSC-CH-C1001-09.4	0.1886		-0.14	2569	CPSC-CH-C1001-09.4	0.17		-0.74
2286	JFSL	0.152		-1.32	2572	CPSC-CH-C1001-09.4	0.177		-0.51
2288		Unmeasured		----	2590		----		----
2289	CPSC-CH-C1001-09.4	0.218		0.82	2605		----		----
2290	CPSC-CH-C1001-09.4	0.178		-0.48	2622	ISO16181-1	0.132		-1.97
2295		----		----	2668	CPSC-CH-C1001-09.4	0.189		-0.12
2297	CPSC-CH-C1001-09.4	0.211		0.59	2674		not applicable		----
2300	ISO14389	0.0989		-3.04	2678		----		----
2301	CPSC-CH-C1001-09.3	not detect.	C	----	2688		----		----
2310	ISO14389	0.178		-0.48	2720	CPSC-CH-C1001-09.4	0.2211		0.92
2311	CPSC-CH-C1001-09.4	0.1680		-0.80	2722		----		----
2313	ISO14389	0.1796		-0.43	2723	ISO16181-1	Not detected		----
2314	ISO14389	0.1686		-0.78	2727	ISO16181-1	not detected		----
2316	IEC62321-8	0.28434		2.97	2736	In house	<0.01	f-?	<-5.93
2320	CPSC-CH-C1001-09.4	0.218834		0.84	2737		----		----
2330	CPSC-CH-C1001-09.4	Not detected		----	2741	ISO14389	0.2189		0.85
2347	CPSC-CH-C1001-09.4	0.2140		0.69	2758		not detected		----
2350	CPSC-CH-C1001-09.4	0.207		0.46	2798		----		----
2352	CPSC-CH-C1001-09.4	0.2155		0.74	2826	CPSC-CH-C1001-09.4	0.1936		0.03
2353	IEC62321-8	0.1787		-0.46	2827	In house	0.1736		-0.62
2354	CPSC-CH-C1001-09.4	0.1775		-0.50	2829	CPSC-CH-C1001-09.4	0.2018		0.29
2355	CPSC-CH-C1001-09.4	0.2063		0.44	2835	EPA3545A/8270E	not detected		----
2357	EN14372	0.2139		0.68	2846		----		----
2361	GB/T22048	0.1793		-0.44	2864	CPSC-CH-C1001-09.4	not detected		----
2362	ISO8124-6	0.1793		-0.44	2900		----		----
2363	CPSC-CH-C1001-09.3	0.218		0.82	2910		not applicable		----
2365	CPSC-CH-C1001-09.4	0.2192		0.86	2948	CPSC-CH-C1001-09-4	ND		----
2366	CPSC-CH-C1001-09.4	0.2115		0.61	2953	CPSC-CH-C1001-09.4	0.242		1.60
2369	CPSC-CH-C1001-09.4	0.1992		0.21	2955	CPSC-CH-C1001-09.4	0.1850		-0.25
2370	CPSC-CH-C1001-09.4	0.222		0.95	2959	CPSC-CH-C1001-09.4	0.121		-2.33

lab	method	value	mark	z(targ)	lab	method	value	mark	z(targ)
2960	CPSC-CH-C1001-09.4	0.2109	C	0.59	3185		----		----
2977	CPSC-CH-C1001-09.4	not detected	----		3190	CPSC-CH-C1001-09.4	0.1951		0.07
2979		< 0.001	f-?	<-6.22	3199	In house	0.129		-2.07
2995	EN62321-8	not detected	----		3200	CPSC-CH-C1001-09.4	0.18965		-0.10
3005		0.2016		0.29	3209	CPSC-CH-C1001-09.4	0.175		-0.58
3006		----		----	3210	In house	0.1244		-2.22
3007	In house	2.347724	R1	69.86	3214	CPSC-CH-C1001-09.4	0.2007		0.26
3008		not analyzed	----		3218	CPSC-CH-C1001-09.3	0.2243		1.02
3100	CPSC-CH-C1001-09.4	0.2044		0.38	3225		----		----
3110		----		----	3230	In house	0.24779628		1.78
3116		----		----	3233	In house	< 0.01	f-?	<-5.93
3118		----		----	3237	CPSC-CH-C1001-09.4	0.1838	C	-0.29
3134	In house	0.212		0.62	3239		----		----
3153		----		----	3248		----		----
3154	In house	0.1448		-1.56	8005		----		----
3163		----		----	8008	JTSS ST2016	0.2031		0.33
3172	ISO8124-6	< 0.0005	f-?	<-6.23	8030	CPSC-CH-C1001-09.4	0.1499		-1.39
3176	EN14372	0.0511	R1	-4.59	8034		----		----
3182	CPSC-CH-C1001-09.4	0.1742		-0.60	8035	In house	0.2001		0.24
normality									
n									
outliers									
mean (n)									
st.dev. (n)									
R(calc.)									
st.dev.(iis memo 1701)									
R(iis memo 1701)									

lab 622 first reported 12.9593
 lab 2104 first reported 2753 %M/M
 lab 2108 first reported 0.087

lab 2301 first reported 6.225
 lab 2960 reported 2109 %M/M
 lab 3237 first reported 0.1614



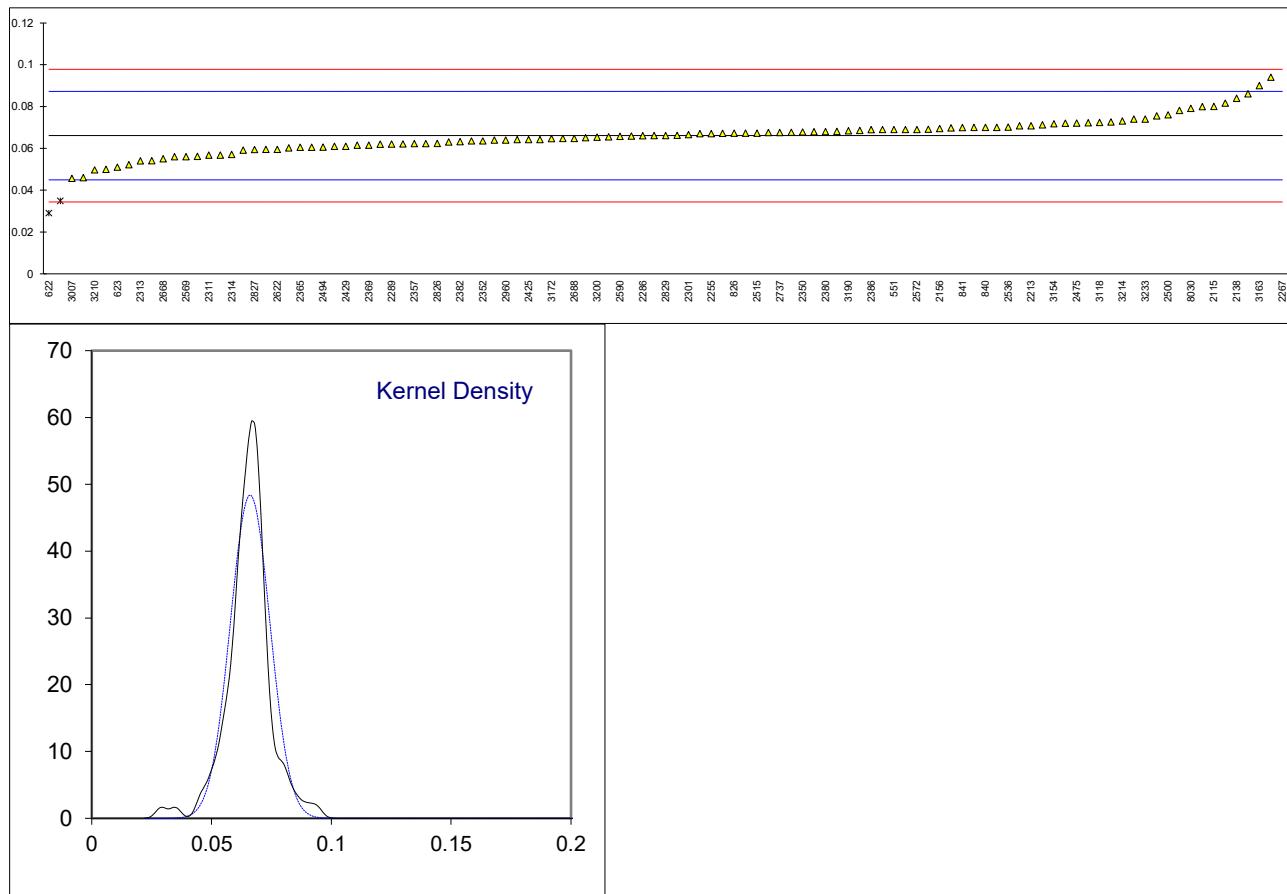
Determination of DMP - Dimethyl phthalate on sample #22620; results in %M/M

lab	method	value	mark	z(targ)	lab	method	value	mark	z(targ)
210	CPSC-CH-C1001-09.4	0.052162		-1.32	2373	CPSC-CH-C1001-09.4	0.0655		-0.06
310		-----		-----	2375	CPSC-CH-C1001-09.4	0.069		0.27
339		not analyzed		-----	2376		Not determined		-----
523		not analyzed		-----	2378	ISO14389	0.061		-0.48
551	CPSC-CH-C1001-09.4	0.069		0.27	2379	JFSL336/ST2016	0.0691		0.28
622	IEC62321-8	0.0290	C,R1	-3.51	2380	CPSC-CH-C1001-09.4	0.06800		0.18
623	In house	0.051		-1.43	2381	CPSC-CH-C1001-09.4	0.0672		0.10
826	IEC62321-8	0.0672		0.10	2382	ISO14389	0.0632		-0.28
840	CPSC-CH-C1001-09.4	0.070		0.37	2384	IEC62321-8	0.07995		1.31
841	In house	0.0699		0.36	2386	CPSC-CH-C1001-09.4	0.0689		0.26
1051		-----		-----	2387		not analyzed		-----
1213		Not applicable		-----	2390	CPSC-CH-C1001-09.4	0.0635		-0.25
2102		Not analyzed		-----	2392		Not determined		-----
2104		-----		-----	2406		-----		-----
2108	EN14389	0.0615	C	-0.44	2410	CPSC-CH-C1001-09.4	0.0708		0.44
2115	CPC-CH-C1001-09.4	0.08		1.31	2425	In house	0.0642		-0.18
2121		-----		-----	2426	CPSC-CH-C1001-09.4	0.0722		0.57
2129	CPSC-CH-C1001-09.3	0.0690		0.27	2429	CPSC-CH-C1001-09.4	0.0610		-0.48
2132	CPSC-CH-C1001-09.4	N/A		-----	2431		-----		-----
2137		-----		-----	2442	CPSC-CH-C1001-09.4	0.065871		-0.02
2138	CPSC-CH-C1001-09.4	0.0839		1.68	2460		-----		-----
2139	CPSC-CH-C1001-09.4	0.067		0.08	2474		-----		-----
2146		-----		-----	2475		0.0721		0.57
2156	CPSC-CH-C1001-09.4	0.0695		0.32	2476		-----		-----
2165		-----		-----	2486	In house	0.06795469		0.17
2170		-----		-----	2492		-----		-----
2177		-----		-----	2494	CPSC-CH-C1001-09.4	0.06058		-0.52
2179		-----		-----	2500	CPSC-CH-C1001-09.4	0.076		0.93
2182		-----		-----	2504		Not Analyzed		-----
2184		-----		-----	2507		-----		-----
2201	CPSC-CH-C1001-09.4	0.0661		0.00	2510	In house	0.074		0.75
2202		-----		-----	2511		-----		-----
2213	CPSC-CH-C1001-09.4	0.0708		0.44	2514	ISO14389	0.067671		0.15
2216		-----		-----	2515	CPSC-CH-C1001-09.4	0.0672		0.10
2218		-----		-----	2522		-----		-----
2236	In house	0.0630		-0.29	2529		-----		-----
2250		-----		-----	2536	CPSC-CH-C1001-09.4	0.0701		0.38
2255	CPSC-CH-C1001-09.4	0.067		0.08	2538		-----		-----
2256		-----		-----	2543		Not Analyzed		-----
2258	CPSC-CH-C1001-09.4	0.07812		1.13	2549	ISO14389	0.0541		-1.14
2265	CPSC-CH-C1001-09.4	0.072		0.56	2560		0.0681	C	0.19
2267		0.3314	R1	25.08	2567	CPSC-CH-C1001-09.4	0.0698		0.35
2284	CPSC-CH-C1001-09.4	0.0568		-0.88	2569	CPSC-CH-C1001-09.4	0.056		-0.96
2286	JFSL	0.066		-0.01	2572	CPSC-CH-C1001-09.4	0.069		0.27
2288		Unmeasured		-----	2590	CPSC-CH-C1001-09.4	0.0657		-0.04
2289	CPSC-CH-C1001-09.4	0.062		-0.39	2605		-----		-----
2290	CPSC-CH-C1001-09.4	0.070		0.37	2622	ISO16181-1	0.0595	C	-0.63
2295	CPSC-CH-C1001-09.4	0.0675		0.13	2668	CPSC-CH-C1001-09.4	0.055		-1.05
2297		Not applicable		-----	2674		not applicable		-----
2300	ISO14389	Not detected		-----	2678		-----		-----
2301	CPSC-CH-C1001-09.3	0.0666		0.05	2688	KS M1991	0.06472		-0.13
2310	ISO14389	0.056		-0.96	2720	CPSC-CH-C1001-09.4	0.0642		-0.18
2311	CPSC-CH-C1001-09.4	0.0568		-0.88	2722		-----		-----
2313	ISO14389	0.0540		-1.15	2723	ISO16181-1	0.0591		-0.66
2314	ISO14389	0.0571		-0.85	2727	ISO16181-1	0.0816		1.46
2316		Not Applicable		-----	2736	In house	0.0755		0.89
2320	CPSC-CH-C1001-09.4	0.072624		0.62	2737	ISO16181-1	0.0675344		0.13
2330	CPSC-CH-C1001-09.4	0.06509		-0.10	2741	ISO14389	0.0619		-0.40
2347	CPSC-CH-C1001-09.4	0.0642		-0.18	2758		not applicable		-----
2350	CPSC-CH-C1001-09.4	0.0678		0.16	2798	CPSC-CH-C1001-09.4	0.070		0.37
2352	CPSC-CH-C1001-09.4	0.0635		-0.25	2826	CPSC-CH-C1001-09.4	0.0624		-0.35
2353		Not determined		-----	2827	In house	0.0594		-0.63
2354		Not determined		-----	2829	CPSC-CH-C1001-09.4	0.0661		0.00
2355	CPSC-CH-C1001-09.4	0.0621		-0.38	2835	EPA3545A/8270E	0.068561		0.23
2357	EN14372	0.0622		-0.37	2846		-----		-----
2361		Not determined		-----	2864	CPSC-CH-C1001-09.4	0.067133		0.10
2362		Not determined		-----	2900		-----		-----
2363	CPSC-CH-C1001-09.3	0.0605		-0.53	2910		not applicable		-----
2365	CPSC-CH-C1001-09.4	0.0605		-0.53	2948	CPSC-CH-C1001-09.4	ND		-----
2366	CPSC-CH-C1001-09.4	0.0595		-0.63	2953	CPSC-CH-C1001-09.4	0.0349	R5	-2.95
2369	CPSC-CH-C1001-09.4	0.0615		-0.44	2955	CPSC-CH-C1001-09.4	0.0662		0.01
2370	CPSC-CH-C1001-09.4	0.0712		0.48	2959	CPSC-CH-C1001-09.4	0.064		-0.20

lab	method	value	mark	z(targ)	lab	method	value	mark	z(targ)
2960	CPSC-CH-C1001-09.4	0.064	C	-0.20	3185		----		----
2977		not analyzed		----	3190	CPSC-CH-C1001-09.4	0.0684		0.22
2979		0.05	C	-1.52	3199		----		----
2995		----		----	3200	CPSC-CH-C1001-09.4	0.06532		-0.08
3005		----		----	3209	CPSC-CH-C1001-09.4	N.A		----
3006		----		----	3210	In house	0.0497		-1.55
3007	In house	0.045624		-1.94	3214	CPSC-CH-C1001-09.4	0.0730		0.65
3008	In house	0.0861		1.89	3218	CPSC-CH-C1001-09.3	0.0647		-0.13
3100	CPSC-CH-C1001-09.4	0.0602		-0.56	3225		----		----
3110		----		----	3230	In house	0.05612145		-0.94
3116		----		----	3233	In house	0.074		0.75
3118	CPSC-CH-C1001-09.4	0.0724		0.59	3237	CPSC-CH-C1001-09.4	0.0622	C	-0.37
3134	In house	0.094		2.64	3239		----		----
3153		----		----	3248		----		----
3154	In house	0.0717		0.53	8005		----		----
3163	CPSC-CH-C1001-09.3	0.09		2.26	8008		----		----
3172	ISO8124-6	0.0646		-0.14	8030	CPSC-CH-C1001-09.4	0.0791		1.23
3176	EN14372	0.0460		-1.90	8034		----		----
3182		Not analyzed		----	8035		----		----
normality									
n		suspect							
outliers		106							
mean (n)		3							
st.dev. (n)		0.06612							
R(calc.)		0.008251		RSD = 12%					
st.dev.(iis memo 1701)		0.02310							
R(iis memo 1701)		0.010579							
		0.02962							

lab 622 first reported 0
 lab 2108 first reported 0.0309
 lab 2560 first reported 681 %M/M
 lab 2622 first reported 0.0448

lab 2960 reported 640 %M/M
 lab 2979 first reported 0.0919
 lab 3237 first reported 0.0541



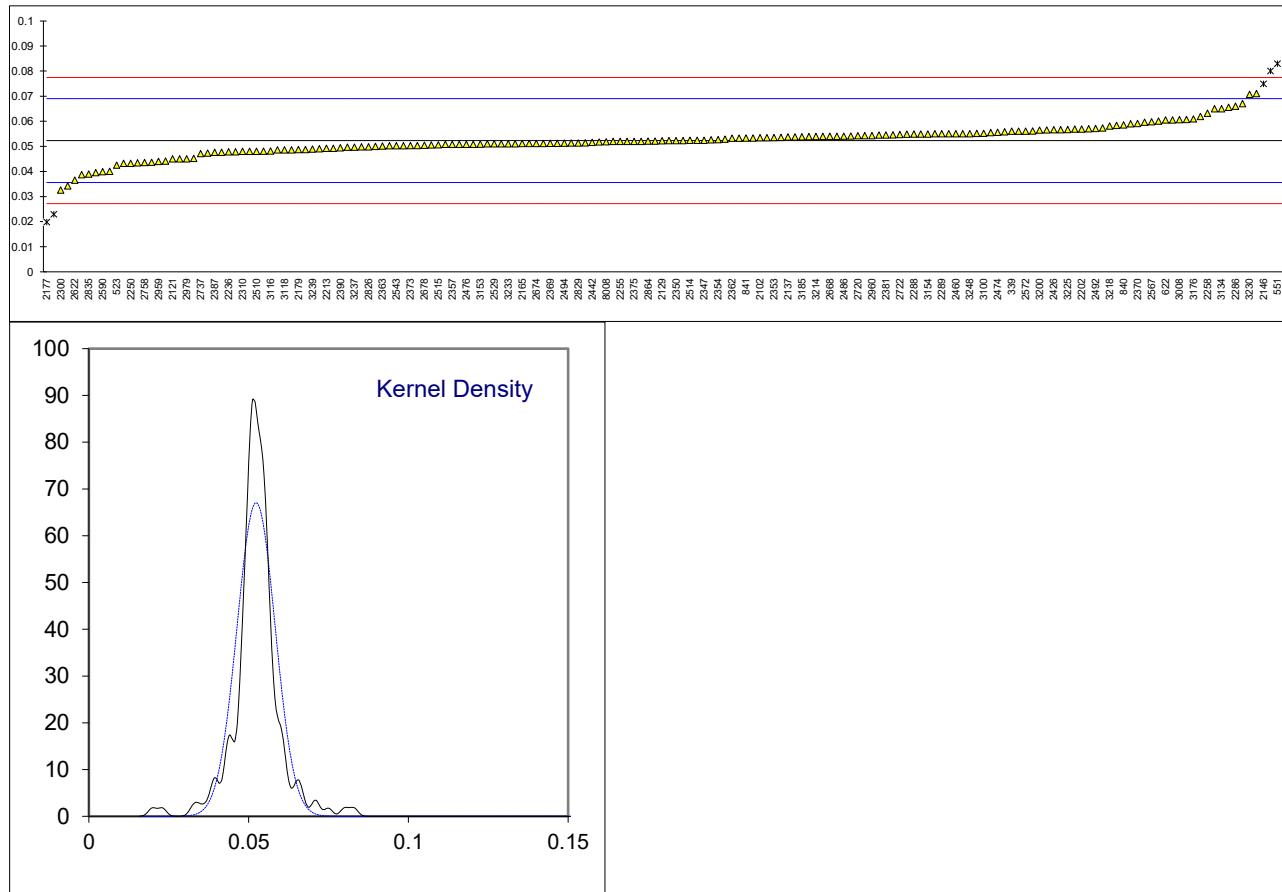
Determination of BBP - Benzyl butyl phthalate on sample #22621; results in %M/M

lab	method	value	mark	z(targ)	lab	method	value	mark	z(targ)
210	CPSC-CH-C1001-09.4	0.052273		0.00	2373	CPSC-CH-C1001-09.4	0.0503		-0.24
310		----		----	2375	CPSC-CH-C1001-09.4	0.052		-0.04
339	CPSC-CH-C1001-09.4	0.056		0.44	2376	ST2016	0.05355		0.15
523	CPSC-CH-C1001-09.4	0.04249		-1.17	2378	EN14372	0.0505		-0.22
551	CPSC-CH-C1001-09.4	0.0829	R1	3.66	2379	IEC62321-8	0.0526		0.04
622	IEC62321-8	0.0605		0.98	2380	CPSC-CH-C1001-09.4	0.05513		0.34
623	In house	0.048		-0.51	2381	CPSC-CH-C1001-09.4	0.0545		0.26
826	IEC62321-8	0.0511		-0.14	2382	ISO14389	0.0512		-0.13
840	CPSC-CH-C1001-09.4	0.0585		0.74	2384	IEC62321-8	0.05331		0.12
841	In house	0.0533		0.12	2386	CPSC-CH-C1001-09.4	0.0546		0.27
1051	GB/T22048	0.0561		0.45	2387	IEC62321-8	0.0476		-0.56
1213	CPSC-CH-C1001-09.4	0.0607		1.00	2390	CPSC-CH-C1001-09.4	0.0494		-0.35
2102		0.0534		0.13	2392	IEC62321-8	0.0540		0.20
2104	CPSC-CH-C1001-09.4	0.0710	C	2.23	2406	CPSC-CH-C1001-09.4	0.0565		0.50
2108	EN14389	0.0524		0.01	2410	CPSC-CH-C1001-09.4	0.0619		1.15
2115	CPSC-CH-C1001-09.4	0.08	R1	3.31	2425	In house	0.0478		-0.54
2121	ISO14389	0.045		-0.87	2426	CPSC-CH-C1001-09.4	0.0566		0.51
2129	CPSC-CH-C1001-09.3	0.0522		-0.01	2429	CPSC-CH-C1001-09.4	0.0558		0.42
2132	CPSC-CH-C1001-09.4	0.0555		0.38	2431	CPSC	0.0596		0.87
2137	KS M1991	0.0537		0.17	2442	CPSC-CH-C1001-09.4	0.051574		-0.09
2138	CPSC-CH-C1001-09.4	0.0670		1.76	2460	CPSC-CH-C1001-09.4	0.055		0.32
2139	CPSC-CH-C1001-09.4	0.055		0.32	2474	ISO8124-6	0.0556		0.39
2146	In house	0.0749	R5	2.70	2475		0.0486		-0.44
2156	CPSC-CH-C1001-09.4	0.0432		-1.09	2476	CPSC-CH-C1001-09.4	0.0508		-0.18
2165		0.0511		-0.14	2486	In house	0.05402985		0.21
2170	CPSC-CH-C1001-09.4	0.0583		0.72	2492	GB/T20388	0.0571		0.57
2177	In house	0.019816	R1	-3.88	2494	CPSC-CH-C1001-09.4	0.05128		-0.12
2179		0.0486815		-0.43	2500	CPSC-CH-C1001-09.4	0.052		-0.04
2182		0.0573		0.60	2504	IEC62321-8	0.0476		-0.56
2184	CPSC-CH-C1001-09.4	0.0502		-0.25	2507	CPSC-CH-C1001-09.3	0.065		1.52
2201		0.0569		0.55	2510	In house	0.048		-0.51
2202	IEC62321-8	0.0569		0.55	2511	CPSC-CH-C1001-09.4	0.0503		-0.24
2213	CPSC-CH-C1001-09.4	0.0492		-0.37	2514	ISO14389	0.052398		0.01
2216	IEC62321-8	0.045		-0.87	2515	CPSC-CH-C1001-09.4	0.0506		-0.20
2218	CPSC-CH-C1001-09.4	0.0566		0.51	2522	CPSC-CH-C1001-09.4	0.056		0.44
2236	In house	0.0478		-0.54	2529	CPSC-CH-C1001-09.4	0.05100		-0.16
2250	In house	0.0432		-1.09	2536		0.0534		0.13
2255	CPSC-CH-C1001-09.4	0.0520		-0.04	2538	In house	0.0497		-0.31
2256	ISO8124-6	0.055		0.32	2543	NBR16040	0.0502		-0.25
2258	CPSC-CH-C1001-09.4	0.06315		1.30	2549	ISO14389	0.0541		0.21
2265	CPSC-CH-C1001-09.4	0.052		-0.04	2560	ISO14389	0.0537		0.17
2267		0.2165	R1	19.62	2567	CPSC-CH-C1001-09.4	0.0598		0.90
2284	CPSC-CH-C1001-09.4	0.0508		-0.18	2569	CPSC-CH-C1001-09.4	0.0395		-1.53
2286	JFSL	0.066		1.64	2572	CPSC-CH-C1001-09.4	0.056		0.44
2288	CPSC-CH-C1001-09.3	0.054896		0.31	2590	CPSC-CH-C1001-09.4	0.0399		-1.48
2289	CPSC-CH-C1001-09.4	0.055		0.32	2605	CPSC-CH-C1001-09.4	0.0549		0.31
2290	CPSC-CH-C1001-09.4	0.057		0.56	2622	CPSC-CH-C1001-09.4	0.0365		-1.89
2295	CPSC-CH-C1001-09.4	0.0513		-0.12	2668	CPSC-CH-C1001-09.4	0.054		0.20
2297	CPSC-CH-C1001-09.4	0.052		-0.04	2674	CPSC-CH-C1001-09.4	0.0511		-0.14
2300	ISO14389	0.0326		-2.35	2678	CPSC-CH-C1001-09.4	0.0504		-0.23
2301	CPSC-CH-C1001-09.3	0.03417722		-2.17	2688	KS M1991	0.05102		-0.15
2310	ISO14389	0.048		-0.51	2720	CPSC-CH-C1001-09.4	0.0542		0.23
2311	CPSC-CH-C1001-09.4	0.0441		-0.98	2722	CPSC-CH-C1001-09.4	0.0547		0.29
2313	ISO14389	0.0545		0.26	2723	ISO16181-1	0.0487		-0.43
2314	ISO14389	0.0514		-0.11	2727	ISO16181-1	0.0434		-1.06
2316	IEC62321-8	0.06010		0.93	2736	In house	0.0473		-0.60
2320	CPSC-CH-C1001-09.4	0.054299		0.24	2737	ISO16181-1	0.047100		-0.62
2330	CPSC-CH-C1001-09.4	0.05175		-0.07	2741	ISO14389	0.0498		-0.30
2347	CPSC-CH-C1001-09.4	0.0524		0.01	2758		0.0435	C	-1.05
2350	CPSC-CH-C1001-09.4	0.0523		0.00	2798	CPSC-CH-C1001-09.4	0.059		0.80
2352	CPSC-CH-C1001-09.4	0.0510		-0.16	2826	CPSC-CH-C1001-09.4	0.0498		-0.30
2353	IEC62321-8	0.05350		0.14	2827	In house	0.0510		-0.16
2354	CPSC-CH-C1001-09.4	0.05265		0.04	2829	CPSC-CH-C1001-09.4	0.0513		-0.12
2355	CPSC-CH-C1001-09.4	0.0500		-0.28	2835	EPA3545A/8270E	0.038907		-1.60
2357	EN14372	0.0508		-0.18	2846	IEC62321-8	0.0655		1.58
2361	GB/T22048	0.05323		0.11	2864	CPSC-CH-C1001-09.4	0.052096		-0.03
2362	ISO8124-6	0.05323		0.11	2900	IEC62321-8	0.0508		-0.18
2363	CPSC-CH-C1001-09.3	0.0501		-0.26	2910	CPSC-CH-C1001-09.4	0.0521		-0.02
2365	CPSC-CH-C1001-09.4	0.0508		-0.18	2948	CPSC-CH-C1001-09.4	0.048026	C	-0.51
2366	CPSC-CH-C1001-09.4	0.0523		0.00	2953	CPSC-CH-C1001-09.4	0.0452		-0.85
2369	CPSC-CH-C1001-09.4	0.0512		-0.13	2955	CPSC-CH-C1001-09.4	0.0548		0.30
2370	IEC62321-8	0.0591		0.81	2959	CPSC-CH-C1001-09.4	0.044		-0.99

lab	method	value	mark	z(targ)	lab	method	value	mark	z(targ)
2960	CPSC-CH-C1001-09.4	0.0543	C	0.24	3185	CPSC-CH-C1001-09.4	0.0538		0.18
2977	CPSC-CH-C1001-09.4	0.03868		-1.63	3190	CPSC-CH-C1001-09.4	0.0550		0.32
2979		0.045	C	-0.87	3199	In house	0.040		-1.47
2995	EN62321-8	0.053823		0.18	3200	CPSC-CH-C1001-09.4	0.05642		0.49
3005		0.0511		-0.14	3209	CPSC-CH-C1001-09.4	0.0540		0.20
3006	IEC62321-8	0.04363		-1.04	3210	In house	0.0486		-0.44
3007	In house	0.022923	R1	-3.51	3214	CPSC-CH-C1001-09.4	0.0539		0.19
3008	In house	0.0606		0.99	3218	CPSC-CH-C1001-09.3	0.0581		0.69
3100	ISO8124-6	0.0552		0.35	3225	CPSC-CH-C1001-09.4	0.0567		0.53
3110	CPSC-CH-C1001-09.4	<0.08		----	3230	In house	0.07074110		2.20
3116	JTS ST2016	0.0481		-0.50	3233	In house	0.051		-0.16
3118	CPSC-CH-C1001-09.4	0.0486	C	-0.44	3237	CPSC-CH-C1001-09.4	0.0497	C	-0.31
3134	In house	0.065		1.52	3239	IEC62321-8	0.0489		-0.41
3153	CPSC-CH-C1001-09.4	0.0509		-0.17	3248	CPSC-CH-C1001-09.4	0.055		0.32
3154	In house	0.0549		0.31	8005	ISO8124-6	0.0492		-0.37
3163		----		----	8008	JTSS ST2016	0.0518		-0.06
3172	ISO8124-6	0.0490		-0.39	8030	ISO8124-6	0.0502		-0.25
3176	EN14372	0.0609		1.03	8034		----		----
3182	CPSC-CH-C1001-09.4	0.0528		0.06	8035	In house	0.0605		0.98
normality									
n									
outliers									
mean (n)									
st.dev. (n)									
R(calc.)									
st.dev.(iis memo 1701)									
R(iis memo 1701)									
RSD = 11%									

lab 2104 first reported 710 %M/M
 lab 2108 first reported 0.0264
 lab 2758 first reported 0.0355
 lab 2948 reported 480.26 %M/M

lab 2960 reported 543 %M/M
 lab 2979 first reported 0.0817
 lab 3118 first reported 0.0731
 lab 3237 first reported 0.0192



Determination of DEHP - Di-(2-ethylhexyl) phthalate on sample #22621; results in %M/M

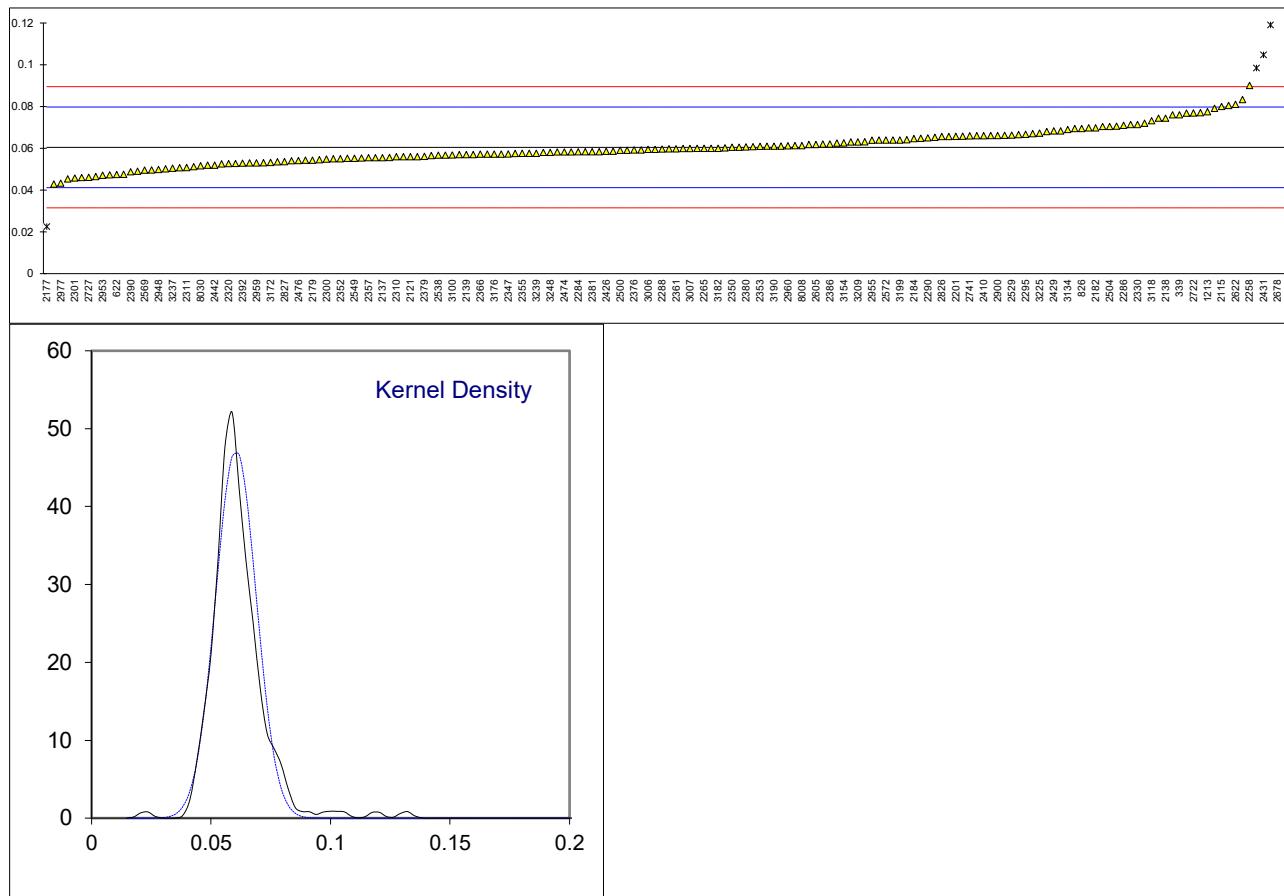
lab	method	value	mark	z(targ)	lab	method	value	mark	z(targ)
210	CPSC-CH-C1001-09.4	0.080469		2.07	2373	CPSC-CH-C1001-09.4	0.0582		-0.23
310		----		----	2375	CPSC-CH-C1001-09.4	0.055		-0.56
339	CPSC-CH-C1001-09.4	0.076		1.61	2376	ST2016	0.05916		-0.13
523	CPSC-CH-C1001-09.4	0.0507		-1.01	2378	EN14372	0.0555		-0.51
551	CPSC-CH-C1001-09.4	0.0984	R1	3.92	2379	IEC62321-8	0.0561		-0.45
622	IEC62321-8	0.0474		-1.35	2380	CPSC-CH-C1001-09.4	0.06063		0.02
623	In house	0.046		-1.49	2381	CPSC-CH-C1001-09.4	0.0584		-0.21
826	IEC62321-8	0.0695		0.93	2382	ISO14389	0.0565		-0.41
840	CPSC-CH-C1001-09.4	0.0698		0.97	2384	IEC62321-8	0.05999		-0.05
841	In house	0.0658		0.55	2386	CPSC-CH-C1001-09.4	0.0620		0.16
1051	GB/T22048	0.0704		1.03	2387	IEC62321-8	0.0476		-1.33
1213	CPSC-CH-C1001-09.4	0.0775	C	1.76	2390	CPSC-CH-C1001-09.4	0.0487		-1.22
2102		0.0592		-0.13	2392	IEC62321-8	0.0529		-0.78
2104	CPSC-CH-C1001-09.4	0.0760	C	1.61	2406	CPSC-CH-C1001-09.4	0.0791		1.93
2108	EN14389	0.0608		0.04	2410	CPSC-CH-C1001-09.4	0.0660		0.57
2115	CPSC-CH-C1001-09.4	0.08		2.02	2425	In house	0.0531		-0.76
2121	ISO14389	0.056		-0.46	2426	CPSC-CH-C1001-09.4	0.0586		-0.19
2129	CPSC-CH-C1001-09.3	0.0602		-0.03	2429	CPSC-CH-C1001-09.4	0.0683		0.81
2132	CPSC-CH-C1001-09.4	0.0630		0.26	2431	CPSC	0.1047	R1	4.57
2137	KS M1991	0.0555		-0.51	2442	CPSC-CH-C1001-09.4	0.05196		-0.88
2138	CPSC-CH-C1001-09.4	0.0744		1.44	2460	CPSC-CH-C1001-09.4	0.072		1.19
2139	CPSC-CH-C1001-09.4	0.057		-0.36	2474	ISO8124-6	0.0582		-0.23
2146	In house	0.0706		1.05	2475		0.0575		-0.31
2156	CPSC-CH-C1001-09.4	0.0453		-1.57	2476	CPSC-CH-C1001-09.4	0.0541		-0.66
2165		0.0552		-0.54	2486	In house	0.05452736		-0.61
2170	CPSC-CH-C1001-09.4	0.0618		0.14	2492	GB/T20388	0.0535		-0.72
2177	In house	0.022491	R1	-3.92	2494	CPSC-CH-C1001-09.4	0.06524		0.49
2179		0.0543413		-0.63	2500	CPSC-CH-C1001-09.4	0.059		-0.15
2182		0.0698		0.97	2504	IEC62321-8	0.0704		1.03
2184	CPSC-CH-C1001-09.4	0.0646		0.43	2507	CPSC-CH-C1001-09.3	0.064		0.37
2201		0.0657		0.54	2510	In house	0.119	R1	6.05
2202	IEC62321-8	0.0695		0.93	2511	CPSC-CH-C1001-09.4	0.0553		-0.53
2213	CPSC-CH-C1001-09.4	0.0662		0.59	2514	ISO14389	0.06000		-0.05
2216	IEC62321-8	0.049		-1.18	2515	CPSC-CH-C1001-09.4	0.0641		0.38
2218	CPSC-CH-C1001-09.4	0.0714		1.13	2522	CPSC-CH-C1001-09.4	0.056		-0.46
2236	In house	0.0648		0.45	2529	CPSC-CH-C1001-09.4	0.06626		0.60
2250	In house	0.0519		-0.88	2536		0.0556		-0.50
2255	CPSC-CH-C1001-09.4	0.0620		0.16	2538	In house	0.0567		-0.39
2256	ISO8124-6	0.057		-0.36	2543	NBR16040	0.0605		0.00
2258	CPSC-CH-C1001-09.4	0.09009		3.06	2549	ISO14389	0.0552		-0.54
2265	CPSC-CH-C1001-09.4	0.060		-0.05	2560	ISO14389	0.0613		0.09
2267		0.7558	R1	71.88	2567	CPSC-CH-C1001-09.4	0.077		1.71
2284	CPSC-CH-C1001-09.4	0.0583		-0.22	2569	CPSC-CH-C1001-09.4	0.0495		-1.13
2286	JFSL	0.071		1.09	2572	CPSC-CH-C1001-09.4	0.064		0.37
2288	CPSC-CH-C1001-09.3	0.059641		-0.08	2590	CPSC-CH-C1001-09.4	0.0631		0.27
2289	CPSC-CH-C1001-09.4	0.068		0.78	2605	CPSC-CH-C1001-09.4	0.0618		0.14
2290	CPSC-CH-C1001-09.4	0.065		0.47	2622	CPSC-CH-C1001-09.4	0.0810	C	2.12
2295	CPSC-CH-C1001-09.4	0.0667		0.65	2668	CPSC-CH-C1001-09.4	0.058		-0.25
2297	CPSC-CH-C1001-09.4	0.057		-0.36	2674	CPSC-CH-C1001-09.4	0.0567		-0.39
2300	ISO14389	0.0548		-0.58	2678	CPSC-CH-C1001-09.4	0.1315	R1	7.34
2301	CPSC-CH-C1001-09.3	0.04576949		-1.52	2688	KS M1991	0.06106		0.06
2310	ISO14389	0.056		-0.46	2720	CPSC-CH-C1001-09.4	0.0599		-0.06
2311	CPSC-CH-C1001-09.4	0.0508		-1.00	2722	CPSC-CH-C1001-09.4	0.0769		1.70
2313	ISO14389	0.0660		0.57	2723	ISO16181-1	0.0502		-1.06
2314	ISO14389	0.0572		-0.34	2727	ISO16181-1	0.0461		-1.48
2316	IEC62321-8	0.05822		-0.23	2736	In house	<0.01	f-?	<-5.22
2320	CPSC-CH-C1001-09.4	0.052677		-0.80	2737	ISO16181-1	0.049588		-1.12
2330	CPSC-CH-C1001-09.4	0.0714	C	1.13	2741	ISO14389	0.0659		0.56
2347	CPSC-CH-C1001-09.4	0.0573		-0.33	2758		0.0666	C	0.63
2350	CPSC-CH-C1001-09.4	0.0605		0.00	2798	CPSC-CH-C1001-09.4	0.053		-0.77
2352	CPSC-CH-C1001-09.4	0.0550		-0.56	2826	CPSC-CH-C1001-09.4	0.0656		0.53
2353	IEC62321-8	0.06091		0.05	2827	In house	0.0536		-0.71
2354	CPSC-CH-C1001-09.4	0.05836		-0.22	2829	CPSC-CH-C1001-09.4	0.0584		-0.21
2355	CPSC-CH-C1001-09.4	0.0576		-0.30	2835	EPA3545A/8270E	0.042853		-1.82
2357	EN14372	0.0555		-0.51	2846	IEC62321-8	0.0661		0.58
2361	GB/T22048	0.05979		-0.07	2864	CPSC-CH-C1001-09.4	0.076796		1.69
2362	ISO8124-6	0.05979		-0.07	2900	IEC62321-8	0.0661		0.58
2363	CPSC-CH-C1001-09.3	0.0560		-0.46	2910	CPSC-CH-C1001-09.4	0.0590		-0.15
2365	CPSC-CH-C1001-09.4	0.0576		-0.30	2948	CPSC-CH-C1001-09.4	0.049815	C	-1.10
2366	CPSC-CH-C1001-09.4	0.0572		-0.34	2953	CPSC-CH-C1001-09.4	0.0471		-1.38
2369	CPSC-CH-C1001-09.4	0.0527		-0.80	2955	CPSC-CH-C1001-09.4	0.0639		0.36
2370	IEC62321-8	0.0683		0.81	2959	CPSC-CH-C1001-09.4	0.053		-0.77

lab	method	value	mark	z(targ)	lab	method	value	mark	z(targ)
2960	CPSC-CH-C1001-09.4	0.0612	C	0.08	3185	CPSC-CH-C1001-09.4	0.0610		0.06
2977	CPSC-CH-C1001-09.4	0.04332		-1.77	3190	CPSC-CH-C1001-09.4	0.0610		0.06
2979		0.064	C	0.37	3199	In house	0.064		0.37
2995	EN62321-8	0.074383		1.44	3200	CPSC-CH-C1001-09.4	0.05949		-0.10
3005		0.0543		-0.64	3209	CPSC-CH-C1001-09.4	0.0630		0.26
3006	IEC62321-8	0.05945		-0.10	3210	In house	0.0473		-1.36
3007	In house	0.059937		-0.05	3214	CPSC-CH-C1001-09.4	0.0670		0.68
3008	In house	0.0512		-0.96	3218	CPSC-CH-C1001-09.3	0.0625		0.21
3100	ISO8124-6	0.0568		-0.38	3225	CPSC-CH-C1001-09.4	0.0672		0.70
3110	CPSC-CH-C1001-09.4	<0.08		----	3230	In house	0.08334937		2.37
3116	JTS ST2016	0.0586		-0.19	3233	In house	0.054		-0.67
3118	CPSC-CH-C1001-09.4	0.0732		1.32	3237	CPSC-CH-C1001-09.4	0.0505	C	-1.03
3134	In house	0.069		0.88	3239	IEC62321-8	0.0576	C	-0.30
3153	CPSC-CH-C1001-09.4	0.0656		0.53	3248	CPSC-CH-C1001-09.4	0.058		-0.25
3154	In house	0.0626		0.22	8005	ISO8124-6	0.0572		-0.34
3163		----		----	8008	JTSS ST2016	0.0613		0.09
3172	ISO8124-6	0.0532		-0.75	8030	ISO8124-6	0.0516		-0.92
3176	EN14372	0.0572		-0.34	8034	In house	0.0465		-1.44
3182	CPSC-CH-C1001-09.4	0.0600		-0.05	8035	In house	0.0525		-0.82

normality OK
n 172
outliers 6
mean (n) 0.06046
st.dev. (n) 0.008441 RSD = 14%
R(calc.) 0.02364
st.dev.(iis memo 1701) 0.009673
R(iis memo 1701) 0.02709

lab 1213 first reported 0.0846
lab 2104 first reported 760 %M/M
lab 2108 first reported 0.0306
lab 2330 first reported 0.12552
lab 2622 first reported 0.0288
lab 2758 first reported 0.0567

lab 2948 reported 498.15 %M/M
lab 2960 reported 612 %M/M
lab 2979 first reported 0.10193
lab 3237 first reported 0.0388
lab 3239 first reported 0.0273



Determination of DBP - Dibutyl phthalate on sample #22621; results in %M/M

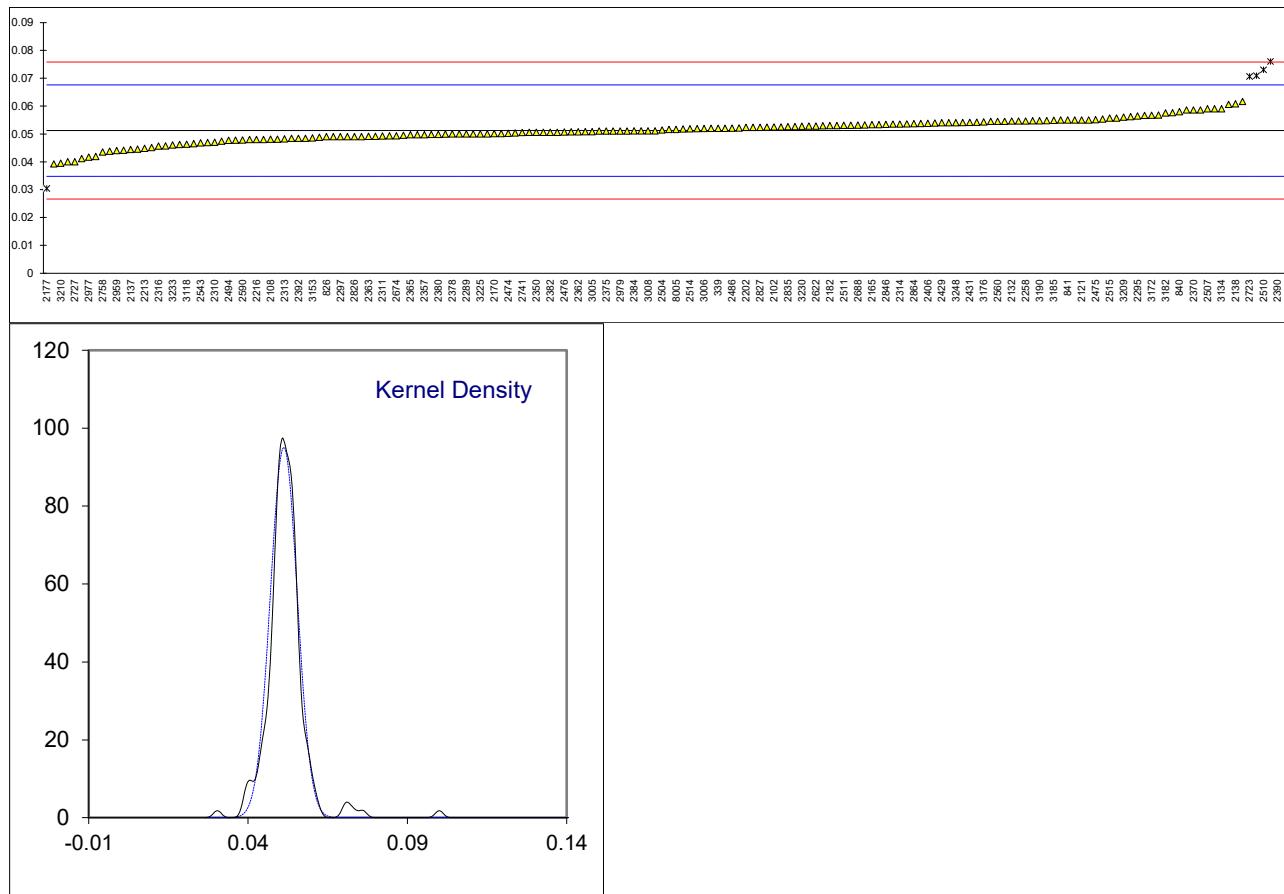
lab	method	value	mark	z(targ)	lab	method	value	mark	z(targ)
210	CPSC-CH-C1001-09.4	0.05332		0.26	2373	CPSC-CH-C1001-09.4	0.0519		0.08
310		----		----	2375	CPSC-CH-C1001-09.4	0.051		-0.03
339	CPSC-CH-C1001-09.4	0.052		0.10	2376	ST2016	0.05011		-0.14
523	CPSC-CH-C1001-09.4	0.04996		-0.15	2378	EN14372	0.05		-0.15
551	CPSC-CH-C1001-09.4	0.0465		-0.58	2379	IEC62321-8	0.0506		-0.08
622	IEC62321-8	0.0508		-0.05	2380	CPSC-CH-C1001-09.4	0.04985		-0.17
623	In house	0.048		-0.39	2381	CPSC-CH-C1001-09.4	0.0495		-0.21
826	IEC62321-8	0.0490		-0.27	2382	ISO14389	0.0506		-0.08
840	CPSC-CH-C1001-09.4	0.0580		0.83	2384	IEC62321-8	0.05108		-0.02
841	In house	0.0550		0.46	2386	CPSC-CH-C1001-09.4	0.0528		0.19
1051	GB/T22048	0.0523		0.13	2387	IEC62321-8	0.0469		-0.53
1213	CPSC-CH-C1001-09.4	0.0568		0.68	2390	CPSC-CH-C1001-09.4	0.10	C,R1	5.95
2102		0.0525		0.16	2392	IEC62321-8	0.0484		-0.34
2104	CPSC-CH-C1001-09.4	0.0606	C	1.14	2406	CPSC-CH-C1001-09.4	0.0538		0.31
2108	EN14389	0.0481	C	-0.38	2410	CPSC-CH-C1001-09.4	0.0562		0.61
2115	CPSC-CH-C1001-09.4	0.04		-1.37	2425	In house	0.0488		-0.30
2121	ISO14389	0.055		0.46	2426	CPSC-CH-C1001-09.4	0.0566		0.66
2129	CPSC-CH-C1001-09.3	0.0457		-0.67	2429	CPSC-CH-C1001-09.4	0.0540		0.34
2132	CPSC-CH-C1001-09.4	0.0546		0.41	2431	CPSC	0.0541		0.35
2137	KS M1991	0.0444		-0.83	2442	CPSC-CH-C1001-09.4	0.052626		0.17
2138	CPSC-CH-C1001-09.4	0.0608		1.17	2460	CPSC-CH-C1001-09.4	0.049		-0.27
2139	CPSC-CH-C1001-09.4	0.049		-0.27	2474	ISO8124-6	0.0502		-0.12
2146	In house	0.0451		-0.75	2475		0.0551		0.47
2156	CPSC-CH-C1001-09.4	0.0419		-1.14	2476	CPSC-CH-C1001-09.4	0.0507		-0.06
2165		0.0533		0.25	2486	In house	0.0520398		0.10
2170	CPSC-CH-C1001-09.4	0.0501		-0.14	2492	GB/T20388	0.0545		0.40
2177	In house	0.030383	R1	-2.54	2494	CPSC-CH-C1001-09.4	0.04772		-0.43
2179		0.0411103		-1.23	2500	CPSC-CH-C1001-09.4	0.050		-0.15
2182		0.0530		0.22	2504	IEC62321-8	0.0514		0.02
2184	CPSC-CH-C1001-09.4	0.0511		-0.01	2507	CPSC-CH-C1001-09.3	0.059		0.95
2201		0.0547		0.42	2510	In house	0.073	R1	2.66
2202	IEC62321-8	0.0523		0.13	2511	CPSC-CH-C1001-09.4	0.0531		0.23
2213	CPSC-CH-C1001-09.4	0.0448		-0.78	2514	ISO14389	0.051855		0.08
2216	IEC62321-8	0.048		-0.39	2515	CPSC-CH-C1001-09.4	0.0557		0.55
2218	CPSC-CH-C1001-09.4	0.0497		-0.19	2522	CPSC-CH-C1001-09.4	0.048		-0.39
2236	In house	0.0484		-0.34	2529	CPSC-CH-C1001-09.4	0.06163		1.27
2250	In house	0.0438		-0.91	2536		0.0546		0.41
2255	CPSC-CH-C1001-09.4	0.051		-0.03	2538	In house	0.0484		-0.34
2256	ISO8124-6	0.050		-0.15	2543	NBR16040	0.0468		-0.54
2258	CPSC-CH-C1001-09.4	0.05461		0.41	2549	ISO14389	0.0481		-0.38
2265	CPSC-CH-C1001-09.4	0.055		0.46	2560	ISO14389	0.0545		0.40
2267		0.1987	R1	18.00	2567	CPSC-CH-C1001-09.4	0.059		0.95
2284	CPSC-CH-C1001-09.4	0.0576		0.78	2569	CPSC-CH-C1001-09.4	0.052		0.10
2286	JFSL	0.051		-0.03	2572	CPSC-CH-C1001-09.4	0.054		0.34
2288	CPSC-CH-C1001-09.3	0.052454		0.15	2590	CPSC-CH-C1001-09.4	0.0478		-0.42
2289	CPSC-CH-C1001-09.4	0.050		-0.15	2605	CPSC-CH-C1001-09.4	0.0539		0.33
2290	CPSC-CH-C1001-09.4	0.055		0.46	2622	CPSC-CH-C1001-09.4	0.0528	C	0.19
2295	CPSC-CH-C1001-09.4	0.0564		0.63	2668	CPSC-CH-C1001-09.4	0.055		0.46
2297	CPSC-CH-C1001-09.4	0.049		-0.27	2674	CPSC-CH-C1001-09.4	0.0493		-0.23
2300	ISO14389	0.076	C,R1	3.02	2678	CPSC-CH-C1001-09.4	0.0709	R1	2.40
2301	CPSC-CH-C1001-09.3	0.0535	C	0.28	2688	KS M1991	0.05315		0.24
2310	ISO14389	0.047		-0.52	2720	CPSC-CH-C1001-09.4	0.0521		0.11
2311	CPSC-CH-C1001-09.4	0.0492		-0.25	2722	CPSC-CH-C1001-09.4	0.0548		0.44
2313	ISO14389	0.0482		-0.37	2723	ISO16181-1	0.0706	R1	2.36
2314	ISO14389	0.0535		0.28	2727	ISO16181-1	0.0400		-1.37
2316	IEC62321-8	0.04564		-0.68	2736	In house	0.0586		0.90
2320	CPSC-CH-C1001-09.4	0.044531		-0.82	2737	ISO16181-1	0.044126		-0.87
2330	CPSC-CH-C1001-09.4	0.05452		0.40	2741	ISO14389	0.0505		-0.09
2347	CPSC-CH-C1001-09.4	0.0518		0.07	2758		0.0435	C	-0.94
2350	CPSC-CH-C1001-09.4	0.0506		-0.08	2798	CPSC-CH-C1001-09.4	0.053		0.22
2352	CPSC-CH-C1001-09.4	0.0520		0.10	2826	CPSC-CH-C1001-09.4	0.0490		-0.27
2353	IEC62321-8	0.04930		-0.23	2827	In house	0.0523		0.13
2354	CPSC-CH-C1001-09.4	0.05060		-0.08	2829	CPSC-CH-C1001-09.4	0.0553		0.50
2355	CPSC-CH-C1001-09.4	0.0491		-0.26	2835	EPA3545A/8270E	0.052592	C	0.17
2357	EN14372	0.0497		-0.19	2846	IEC62321-8	0.0534		0.27
2361	GB/T22048	0.05074		-0.06	2864	CPSC-CH-C1001-09.4	0.053668		0.30
2362	ISO8124-6	0.05074		-0.06	2900	IEC62321-8	0.0474		-0.47
2363	CPSC-CH-C1001-09.3	0.0491		-0.26	2910	CPSC-CH-C1001-09.4	0.0490		-0.27
2365	CPSC-CH-C1001-09.4	0.0497		-0.19	2948	CPSC-CH-C1001-09.4	0.054075	C	0.35
2366	CPSC-CH-C1001-09.4	0.0498		-0.17	2953	CPSC-CH-C1001-09.4	0.0392		-1.47
2369	CPSC-CH-C1001-09.4	0.0516		0.05	2955	CPSC-CH-C1001-09.4	0.0525		0.16
2370	IEC62321-8	0.0586		0.90	2959	CPSC-CH-C1001-09.4	0.044		-0.88

lab	method	value	mark	z(targ)	lab	method	value	mark	z(targ)
2960	CPSC-CH-C1001-09.4	0.0536	C	0.29	3185	CPSC-CH-C1001-09.4	0.0549		0.45
2977	CPSC-CH-C1001-09.4	0.04169		-1.16	3190	CPSC-CH-C1001-09.4	0.0547		0.42
2979		0.051	C	-0.03	3199	In house	0.051		-0.03
2995	EN62321-8	0.058599		0.90	3200	CPSC-CH-C1001-09.4	0.05375		0.31
3005		0.0508		-0.05	3209	CPSC-CH-C1001-09.4	0.0560		0.58
3006	IEC62321-8	0.05193		0.09	3210	In house	0.0395		-1.43
3007	In house	0.047773		-0.42	3214	CPSC-CH-C1001-09.4	0.0531		0.23
3008	In house	0.0511		-0.01	3218	CPSC-CH-C1001-09.3	0.0557		0.55
3100	ISO8124-6	0.0542		0.36	3225	CPSC-CH-C1001-09.4	0.05		-0.15
3110	CPSC-CH-C1001-09.4	<0.08		-----	3230	In house	0.05274302		0.19
3116	JTS ST2016	0.0529		0.20	3233	In house	0.046		-0.64
3118	CPSC-CH-C1001-09.4	0.0463		-0.60	3237	CPSC-CH-C1001-09.4	0.0462	C	-0.61
3134	In house	0.059		0.95	3239	IEC62321-8	0.0511	C	-0.01
3153	CPSC-CH-C1001-09.4	0.0486		-0.32	3248	CPSC-CH-C1001-09.4	0.054		0.34
3154	In house	0.0503		-0.11	8005	ISO8124-6	0.0516		0.05
3163		-----		-----	8008	JTSS ST2016	0.0500		-0.15
3172	ISO8124-6	0.0567		0.67	8030	ISO8124-6	0.0532		0.24
3176	EN14372	0.0543		0.38	8034		-----		-----
3182	CPSC-CH-C1001-09.4	0.0575		0.77	8035	In house	0.0506		-0.08

normality OK
n 171
outliers 7
mean (n) 0.05122
st.dev. (n) 0.004196 RSD = 8%
R(calc.) 0.01175
st.dev.(iis memo 1701) 0.008195
R(iis memo 1701) 0.02295

lab 2104 first reported 606 %M/M
lab 2108 first reported 0.0242
lab 2300 first reported 0.2241
lab 2301 first reported 0.035276482
lab 2390 first reported 0.1389
lab 2622 first reported 0.0327
lab 2758 first reported 0.0390

lab 2835 first reported 0.035861
lab 2948 reported 540.75 %M/M
lab 2960 reported 536 %M/M
lab 2979 first reported 0.07983
lab 3237 first reported 0.0415
lab 3239 first reported 0.0361



Determination of DIBP - Di-iso-butyl phthalate on sample #22621; results in %M/M

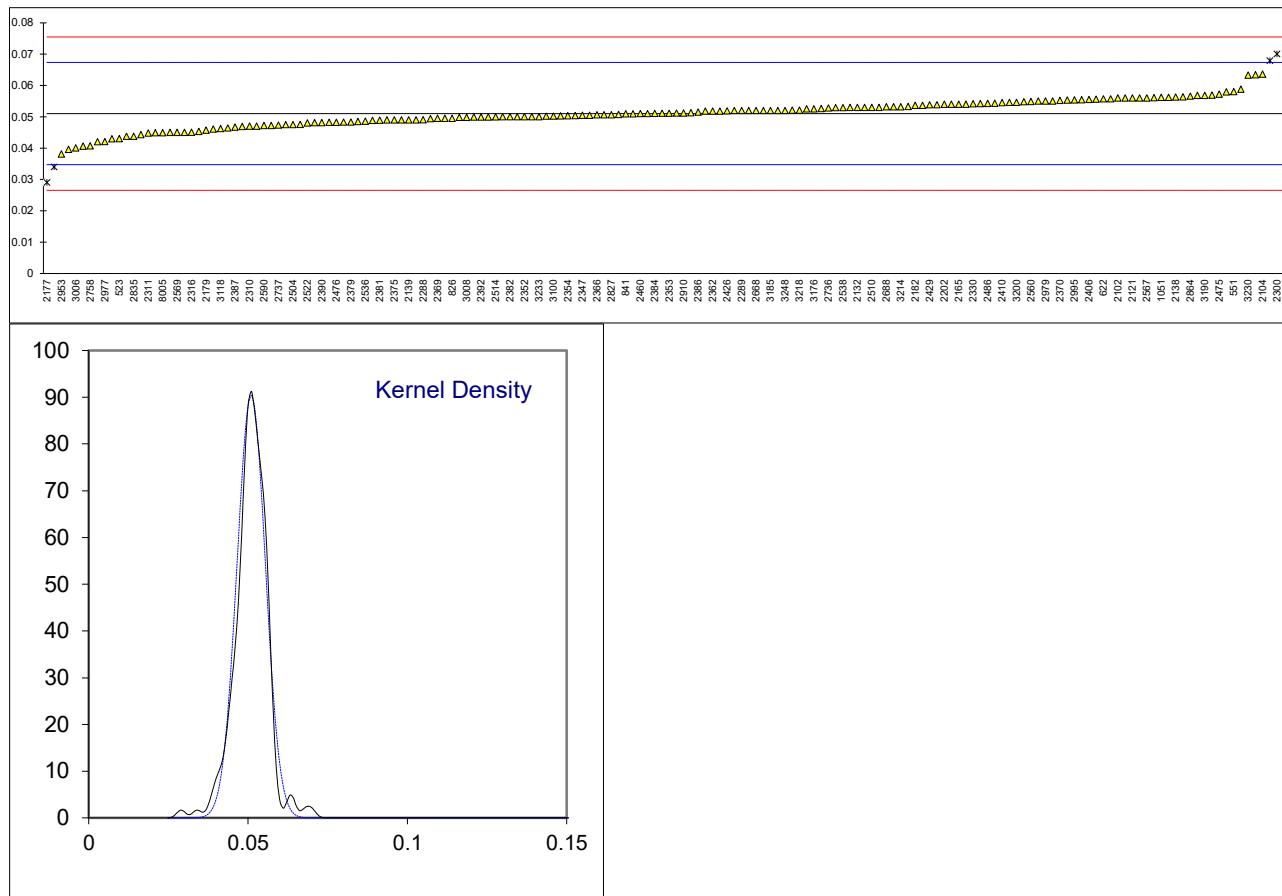
lab	method	value	mark	z(targ)	lab	method	value	mark	z(targ)
210	CPSC-CH-C1001-09.4	0.04375		-0.89	2373	CPSC-CH-C1001-09.4	0.0494		-0.20
310		----		----	2375	CPSC-CH-C1001-09.4	0.049		-0.25
339	CPSC-CH-C1001-09.4	0.053		0.24	2376		Not determined		----
523	CPSC-CH-C1001-09.4	0.04302		-0.98	2378	EN14372	0.0498		-0.15
551	CPSC-CH-C1001-09.4	0.0580		0.86	2379	IEC62321-8	0.0483		-0.33
622	IEC62321-8	0.0557		0.57	2380	CPSC-CH-C1001-09.4	0.04884		-0.27
623	In house	0.047		-0.49	2381	CPSC-CH-C1001-09.4	0.0489		-0.26
826	IEC62321-8	0.0495		-0.19	2382	ISO14389	0.050		-0.12
840	CPSC-CH-C1001-09.4	0.0556		0.56	2384	IEC62321-8	0.05108		0.01
841	In house	0.0509		-0.01	2386	CPSC-CH-C1001-09.4	0.0515		0.06
1051	GB/T22048	0.0562		0.64	2387	IEC62321-8	0.0467		-0.53
1213	CPSC-CH-C1001-09.4	0.0568		0.71	2390	CPSC-CH-C1001-09.4	0.0481		-0.36
2102		0.0560		0.61	2392	IEC62321-8	0.0499		-0.14
2104	CPSC-CH-C1001-09.4	0.0636	C	1.54	2406	CPSC-CH-C1001-09.4	0.0555		0.55
2108	EN14389	0.0481	C	-0.36	2410	CPSC-CH-C1001-09.4	0.0545		0.43
2115	CPSC-CH-C1001-09.4	0.05		-0.12	2425	In house	0.0475		-0.43
2121	ISO14389	0.056		0.61	2426	CPSC-CH-C1001-09.4	0.0519		0.11
2129	CPSC-CH-C1001-09.3	0.0464		-0.57	2429	CPSC-CH-C1001-09.4	0.0538		0.34
2132	CPSC-CH-C1001-09.4	0.0530		0.24	2431	CPSC	0.0525		0.18
2137	KS M1991	0.0483		-0.33	2442	CPSC-CH-C1001-09.4	0.05114		0.02
2138	CPSC-CH-C1001-09.4	0.0563	C	0.65	2460	CPSC-CH-C1001-09.4	0.051		0.00
2139	CPSC-CH-C1001-09.4	0.049		-0.25	2474	ISO8124-6	0.0511		0.01
2146	In house	0.0443		-0.82	2475		0.0572		0.76
2156	CPSC-CH-C1001-09.4	0.0449		-0.75	2476	CPSC-CH-C1001-09.4	0.0482		-0.34
2165		0.0540		0.37	2486	In house	0.05422885		0.39
2170	CPSC-CH-C1001-09.4	0.0509		-0.01	2492		-----		-----
2177	In house	0.029019	R1	-2.69	2494	CPSC-CH-C1001-09.4	0.05000		-0.12
2179		0.0457557		-0.64	2500	CPSC-CH-C1001-09.4	0.051		0.00
2182		0.0536		0.32	2504	IEC62321-8	0.0475		-0.43
2184	CPSC-CH-C1001-09.4	0.0499		-0.14	2507	CPSC-CH-C1001-09.3	0.056		0.61
2201		0.0561		0.62	2510	In house	0.053		0.24
2202	IEC62321-8	0.0540		0.37	2511	CPSC-CH-C1001-09.4	0.0569		0.72
2213	CPSC-CH-C1001-09.4	0.0518		0.10	2514	ISO14389	0.049955		-0.13
2216	IEC62321-8	0.045		-0.74	2515	CPSC-CH-C1001-09.4	0.0532		0.27
2218	CPSC-CH-C1001-09.4	0.0529		0.23	2522	CPSC-CH-C1001-09.4	0.048		-0.37
2236	In house	0.0485		-0.31	2529	CPSC-CH-C1001-09.4	0.05791		0.84
2250	In house	0.0453		-0.70	2536		0.0486		-0.30
2255	CPSC-CH-C1001-09.4	0.0490		-0.25	2538	In house	0.0529		0.23
2256	ISO8124-6	0.052		0.12	2543	NBR16040	0.0503		-0.09
2258	CPSC-CH-C1001-09.4	0.05631		0.65	2549	ISO14389	0.0504		-0.08
2265	CPSC-CH-C1001-09.4	0.054		0.37	2560	ISO14389	0.0549		0.48
2267		0.2779	R1	27.80	2567	CPSC-CH-C1001-09.4	0.056		0.61
2284	CPSC-CH-C1001-09.4	0.0588		0.95	2569	CPSC-CH-C1001-09.4	0.045		-0.74
2286	JFSL	0.0530		0.24	2572	CPSC-CH-C1001-09.4	0.054		0.37
2288	CPSC-CH-C1001-09.3	0.049017		-0.24	2590	CPSC-CH-C1001-09.4	0.0472		-0.47
2289	CPSC-CH-C1001-09.4	0.052		0.12	2605	CPSC-CH-C1001-09.4	0.0505		-0.06
2290	CPSC-CH-C1001-09.4	0.055		0.49	2622	CPSC-CH-C1001-09.4	0.0562	C	0.64
2295	CPSC-CH-C1001-09.4	0.0543		0.40	2668	CPSC-CH-C1001-09.4	0.052		0.12
2297	CPSC-CH-C1001-09.4	0.050		-0.12	2674	CPSC-CH-C1001-09.4	0.0506		-0.05
2300	ISO14389	0.07	C,R5	2.33	2678	CPSC-CH-C1001-09.4	0.0546		0.44
2301	CPSC-CH-C1001-09.3	0.0461	C	-0.60	2688	KS M1991	0.05317		0.26
2310	ISO14389	0.047		-0.49	2720	CPSC-CH-C1001-09.4	0.0554		0.54
2311	CPSC-CH-C1001-09.4	0.0448		-0.76	2722	CPSC-CH-C1001-09.4	0.0548		0.46
2313	ISO14389	0.0520		0.12	2723	ISO16181-1	0.0679	R5	2.07
2314	ISO14389	0.0490		-0.25	2727	ISO16181-1	0.0340	R5	-2.08
2316	IEC62321-8	0.04505		-0.73	2736	In house	0.0528		0.22
2320	CPSC-CH-C1001-09.4	0.063406		1.52	2737	ISO16181-1	0.047311		-0.45
2330	CPSC-CH-C1001-09.4	0.05415		0.38	2741	ISO14389	0.0490		-0.25
2347	CPSC-CH-C1001-09.4	0.0505		-0.06	2758		0.0407		-1.26
2350	CPSC-CH-C1001-09.4	0.0560		0.61	2798	CPSC-CH-C1001-09.4	0.052		0.12
2352	CPSC-CH-C1001-09.4	0.0500		-0.12	2826	CPSC-CH-C1001-09.4	0.0499		-0.14
2353	IEC62321-8	0.05113		0.01	2827	In house	0.0506		-0.05
2354	CPSC-CH-C1001-09.4	0.05032		-0.09	2829	CPSC-CH-C1001-09.4	0.0513		0.03
2355	CPSC-CH-C1001-09.4	0.0521		0.13	2835	EPA3545A/8270E	0.043752		-0.89
2357	EN14372	0.0482		-0.34	2846	IEC62321-8	0.0553		0.53
2361	GB/T22048	0.05179		0.10	2864	CPSC-CH-C1001-09.4	0.056587		0.68
2362	ISO8124-6	0.05179		0.10	2900	IEC62321-8	0.0450		-0.74
2363	CPSC-CH-C1001-09.3	0.0495		-0.19	2910	CPSC-CH-C1001-09.4	0.0512		0.02
2365	CPSC-CH-C1001-09.4	0.0502		-0.10	2948	CPSC-CH-C1001-09.4	0.042026	C	-1.10
2366	CPSC-CH-C1001-09.4	0.0506		-0.05	2953	CPSC-CH-C1001-09.4	0.0381		-1.58
2369	CPSC-CH-C1001-09.4	0.0495		-0.19	2955	CPSC-CH-C1001-09.4	0.0542		0.39
2370	IEC62321-8	0.0552		0.51	2959	CPSC-CH-C1001-09.4	0.043		-0.98

lab	method	value	mark	z(targ)	lab	method	value	mark	z(targ)
2960	CPSC-CH-C1001-09.4	0.053	C	0.24	3185	CPSC-CH-C1001-09.4	0.0520		0.12
2977	CPSC-CH-C1001-09.4	0.04207		-1.10	3190	CPSC-CH-C1001-09.4	0.0568		0.71
2979		0.055	C	0.49	3199	In house	<0.005	f-?	<-5.64
2995	EN62321-8	0.055354		0.53	3200	CPSC-CH-C1001-09.4	0.0546		0.44
3005		0.0526		0.19	3209	CPSC-CH-C1001-09.4	0.0520		0.12
3006	IEC62321-8	0.04001	C	-1.35	3210	In house	0.0406		-1.28
3007		----		----	3214	CPSC-CH-C1001-09.4	0.0532		0.27
3008	In house	0.0498		-0.15	3218	CPSC-CH-C1001-09.3	0.0521		0.13
3100	ISO8124-6	0.0502		-0.10	3225	CPSC-CH-C1001-09.4	0.0538		0.34
3110	CPSC-CH-C1001-09.4	<0.08		----	3230	In house	0.0633	C	1.51
3116		----		----	3233	In house	0.050		-0.12
3118	CPSC-CH-C1001-09.4	0.0462		-0.59	3237	CPSC-CH-C1001-09.4	0.0476	C	-0.42
3134	In house	0.055		0.49	3239	IEC62321-8	0.0396		-1.40
3153	CPSC-CH-C1001-09.4	0.0507		-0.04	3248	CPSC-CH-C1001-09.4	0.052		0.12
3154	In house	0.0533		0.28	8005	ISO8124-6	0.0449		-0.75
3163		----		----	8008		----		----
3172	ISO8124-6	0.0557	C	0.57	8030	ISO8124-6	0.0472		-0.47
3176	EN14372	0.0525		0.18	8034		----		----
3182	CPSC-CH-C1001-09.4	0.0469		-0.50	8035	In house	0.0536		0.32

normality OK
n 167
outliers 5
mean (n) 0.05101
st.dev. (n) 0.004415 RSD = 9%
R(calc.) 0.01236
st.dev.(iis memo 1701) 0.008162
R(iis memo 1701) 0.02285

lab 2104 first reported 636 %M/M
lab 2108 first reported 0.0242
lab 2138 first reported 0.0664
lab 2300 first reported 0.0304
lab 2301 first reported 0.032978015
lab 2622 first reported 0.0315
lab 2948 reported 420.26 %M/M

lab 2960 reported 530 %M/M
lab 2979 first reported 0.08098
lab 3006 first reported 0.03437
lab 3172 first reported 0.0364
lab 3230 first reported 0.072762271
lab 3237 first reported 0.0435



APPENDIX 2

BBP = Benzyl butyl phthalate
 DIDP = Di-iso-decyl phthalate
 DINP = Di-iso-nonyl phthalate
 DNOP = Di-n-octyl phthalate
 DCHP = Dicyclohexyl phthalate
 DEP = Diethyl phthalate
 DMP = Dimethyl phthalate
 DNHP = Di-n hexyl phthalate
 DIBP = Di-iso-butyl phthalate
 DPHP = Di(2-propylheptyl) phthalate
 DNPP = Di-n-pentyl phthalate
 DUP = Diundecyl phthalate
 DPrP = Di-n-propyl phthalate
 DMEP = Di-(2-methoxyethyl) phthalate
 Other = Total Other Phthalates

Summary of other Phthalates in sample #22620: results in %M/M

Lab	BBP	DIDP	DINP	DCHP	DEP	DNHP	DIBP
210	----	----	----	----	----	----	----
310	-----	-----	-----	-----	-----	-----	-----
339	not detected	not detected	not detected	not detected	not analyzed	not detected	0.003
523	not detected	not detected	not detected	not detected	not analyzed	not detected	not detected
551	-----	-----	-----	-----	-----	-----	-----
622	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0030
623	not detected	not detected	0.004				
826	-----	-----	-----	-----	-----	-----	-----
840	not detected	not detected	not detected				
841	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
1051	-----	-----	-----	-----	-----	-----	-----
1213	Not detected	Not detected	Not detected				
2102	Not detected	Not detected	Not detected	Not analyzed	Not analyzed	Not analyzed	Not detected
2104	-----	-----	-----	-----	-----	-----	-----
2108	-----	-----	-----	-----	-----	-----	-----
2115	-----	-----	-----	-----	-----	-----	-----
2121	-----	-----	-----	-----	-----	-----	-----
2129	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
2132	<0.01	<0.01	<0.01	<0.01	N/A	<0.01	<0.01
2137	-----	-----	-----	-----	-----	-----	-----
2138	na	na	na	na	na	na	na
2139	-----	-----	-----	-----	-----	-----	-----
2146	not detected	not detected	not detected	-----	-----	-----	not determined
2156	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01
2165	not detected	-----	not detected	not detected	-----	not detected	not detected
2170	-----	-----	-----	-----	-----	-----	-----
2177	-----	-----	-----	-----	-----	-----	-----
2179	-----	-----	-----	-----	-----	-----	-----
2182	-----	-----	-----	-----	-----	-----	-----
2184	not detected	not detected	not detected	not detected	-----	not detected	not detected
2201	not detected	not detected	not detected				
2202	N.D.	N.D.	N.D.	-----	-----	N.D.	N.D.
2213	-----	-----	-----	-----	-----	-----	-----
2216	Not Detected	Not Detected	Not Detected	-----	-----	-----	Not Detected
2218	-----	-----	-----	-----	-----	-----	-----
2236	Not Detected	Not Detected	Not Detected				
2250	-----	-----	-----	0.05988	-----	-----	-----
2255	Not Detected	Not Detected	Not Detected				
2256	-----	-----	-----	-----	-----	-----	-----
2258	not detected	not detected	not detected				
2265	<0,01	<0,01	<0,01	<0,01	<0,01	<0,01	<0,01
2267	-----	-----	-----	-----	-----	-----	0.03523
2284	nd	nd	nd	nd	nd	nd	nd
2286	<0.005	<0.025	<0.025	<0.005	<0.005	<0.005	<0.005
2288	<0.01	Unmeasured	Unmeasured	Unmeasured	Unmeasured	Unmeasured	<0.01
2289	-----	-----	-----	-----	-----	-----	-----
2290	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2295	-----	-----	-----	-----	-----	-----	-----
2297	Not detected	Not detected	Not detected	Not detected	Not applicable	Not detected	Not detected
2300	Not detected	Not detected	0.0022				

Lab	BBP	DIDP	DINP	DCHP	DEP	DNHP	DIBP
2301	----	----	----	----	----	----	----
2310	not detected						
2311	Not Detected	<0.005					
2313	Not Detected						
2314	----	----	----	----	----	----	----
2316	Not Detected	Not Detected	Not Detected	Not Applicable	Not Applicable	Not Applicable	Not Detected
2320	<0.003	<0.005	<0.005	<0.003	<0.003	<0.003	<0.003
2330	Not detected						
2347	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2350	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
2352	----	----	----	----	----	----	----
2353	Not detected	Not detected	Not detected	Not determined	Not determined	Not determined	Not detected
2354	Not detected	Not detected	Not detected	Not detected	Not determined	Not detected	Not detected
2355	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
2357	----	----	----	----	----	----	----
2361	Not detected	Not detected	Not detected	Not determined	Not determined	Not determined	Not detected
2362	Not detected	Not detected	Not detected	Not determined	Not determined	Not determined	Not detected
2363	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2365	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2366	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
2369	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2370	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
2373	not detected						
2375	----	----	----	----	----	----	----
2376	Not detected	Not detected	Not detected	Not determined	Not determined	Not determined	Not determined
2378	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2379	Not detected						
2380	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2381	----	----	----	----	----	----	----
2382	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
2384	not detect<0.05	not detect<0.01	not detect<0.01	not detect<0.05	not detect<0.05	not detect<0.05	not detect<0.05
2386	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2387	not detect<0.05	not analyzed	not detect<0.05				
2390	----	----	----	----	----	----	0.0064
2392	Not detected	Not detected	Not detected	Not determined	Not determined	Not determined	Not detected
2406	not detected	not detected	not detected	not detected	-----	not detected	not detected
2410	----	----	----	----	----	----	----
2425	Not Detected						
2426	Not Detected						
2429	----	----	----	----	----	----	----
2431	----	----	----	----	----	----	----
2442	Not Detected						
2460	0.0	0.0	0.0	0.0	-----	0.0	0.0
2474	----	----	----	----	----	----	----
2475	----	----	----	----	----	----	----
2476	ND	ND	ND	ND	-----	ND	ND
2486	----	----	----	----	----	----	----
2492	----	----	----	----	----	----	----
2494	not detected						
2500	not detected						
2504	< 0.010	Not Detected	Not Detected	Not Analyzed	Not Analyzed	Not Analyzed	< 0.010
2507	<0.100	<0.100	----	----	----	----	----
2510	Not determined						
2511	----	----	----	----	----	----	----
2514	----	----	----	----	----	----	----
2515	----	----	----	----	----	----	----
2522	<0.01	----	<0.01	<0.01	----	<0.01	<0.01
2529	----	----	----	----	----	----	----
2536	Not Detected						
2538	----	----	----	----	----	----	0.2491
2543	0.0005	0.0044	Not Detected	Not Analyzed	Not Analyzed	Not Analyzed	0.0047
2549	Not Detected						
2560	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2567	<0.01%	<0.01%	<0.01%	<0.01%	<0.01%	<0.01%	<0.01%
2569	Not Detected						
2572	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2590	----	----	----	----	----	----	0.00326
2605	<0.0100	----	<0.0100	<0.0100	----	<0.0100	<0.0100
2622	----	----	----	----	----	----	0.00197
2668	Not detected						
2674	not determined	not applicable	not determined	not determined	not applicable	not determined	not determined
2678	Not detected	----	Not detected	Not detected	----	Not detected	Not detected
2688	----	----	----	----	----	----	----
2720	not detected						
2722	Not detected	----	Not detected	Not detected	----	Not detected	Not detected
2723	Not detected	0.0037					
2727	not detected						

Lab	BBP	DIDP	DINP	DCHP	DEP	DNHP	DIBP
2736	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2737	----	----	----	----	----	----	----
2741	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2758	not detected	0.0023	not detected	not detected	not detected	not applicable	0.0023
2798	-----	-----	-----	-----	-----	-----	-----
2826	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected
2827	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
2829	not detected	not detected	not detected	not detected	not detected	not detected	not detected
2835	Not detected	not detected	not detected	-----	not detected	-----	0.002796
2846	-----	-----	-----	-----	-----	-----	-----
2864	not detected	not detected	not detected	not detected	not detected	not detected	not detected
2900	N.D	-----	-----	-----	-----	-----	N.D
2910	not detected	not applicable	not detected	not detected	not applicable	not detected	not detected
2948	ND	ND	ND	ND	ND	ND	ND
2953	-----	0.00151	-----	-----	-----	-----	0.00232
2955	not detected	not detected	not detected	not detected	not detected	not detected	not detected
2959	-----	-----	-----	-----	-----	-----	-----
2960	-----	-----	-----	-----	-----	-----	-----
2977	not detected	not detected	not detected	not analyzed	not analyzed	not detected	0,00326 %
2979	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.004
2995	not detected	0.002274	0.013022	-----	-----	-----	0.003115
3005	-----	-----	-----	-----	-----	-----	-----
3006	<0.01	-----	-----	-----	-----	-----	<0.01
3007	Non Detected	0.002002	Non Detected	-----	0.001913	-----	-----
3008	not detected	not analyzed	not analyzed	not analyzed	not detected	not analyzed	not detected
3100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
3110	-----	-----	-----	-----	-----	-----	-----
3116	-----	-----	-----	-----	-----	-----	-----
3118	-----	-----	-----	-----	-----	-----	-----
3134	not detected	not detected	not detected	-----	not detected	not detected	not detected
3153	-----	-----	-----	-----	-----	-----	-----
3154	-----	-----	-----	-----	-----	-----	0.0027
3163	-----	-----	-----	-----	-----	-----	-----
3172	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
3176	-----	-----	-----	-----	-----	-----	-----
3182	Not detected	Not detected	Not detected	Not detected	Not analyzed	Not analyzed	Not analyzed
3185	not detect<0.01	-----	not detect<0.01	not detect<0.01	-----	not detect<0.01	not detect<0.01
3190	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
3199	<0.005	<0.005	<0.005	<0.005	-----	<0.005	<0.005
3200	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
3209	-----	-----	-----	-----	-----	-----	-----
3210	<0.002	<0.005	<0.005	<0.002	<0.002	<0.002	0.0027
3214	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
3218	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
3225	<0.005	-----	<0.005	<0.005	-----	-----	<0.005
3230	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected
3233	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
3237	-----	-----	-----	-----	-----	-----	-----
3239	not detected	-----	-----	-----	-----	-----	not detected
3248	-----	-----	-----	-----	-----	-----	-----
8005	-----	-----	-----	-----	-----	-----	-----
8008	-----	-----	-----	-----	-----	-----	-----
8030	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected
8034	-----	-----	-----	-----	-----	-----	-----
8035	-----	-----	-----	-----	-----	-----	0.0041

Summary of other Phthalates in sample #22620; results in %M/M – continued

Lab	DPHP	DNPP	DUP	DPrP	DMEP	Other
210	----	----	----	----	----	----
310	----	----	----	----	----	----
339	not analyzed	not detected	not detected	not analyzed	not analyzed	not analyzed
523	not analyzed	not detected	not analyzed	not analyzed	not analyzed	----
551	----	----	----	----	----	----
622	0.0000	----	0.0000	0.0000	0.0000	----
623	not detected					
826	----	----	----	----	----	----
840	not detected	----				
841	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
1051	----	----	----	----	----	----
1213	Not detected					
2102	Not analyzed					
2104	----	----	----	----	----	----
2108	----	----	----	----	----	----
2115	----	----	----	----	----	----
2121	----	----	----	----	----	----
2129	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
2132	N/A	<0.01	N/A	N/A	N/A	N/A
2137	----	----	----	----	----	----
2138	na	na	na	na	na	na
2139	----	----	----	----	----	----
2146	----	----	----	----	----	----
2156	----	<0.01	----	----	<0.01	----
2165	----	not detected	----	----	----	----
2170	----	----	----	----	----	----
2177	----	----	----	----	----	----
2179	----	----	----	----	----	----
2182	----	----	----	----	----	----
2184	----	not detected	----	----	----	----
2201	not detected					
2202	----	----	----	----	----	----
2213	----	----	----	----	----	----
2216	----	----	----	----	----	----
2218	----	----	----	----	----	----
2236	----	Not Detected	----	----	----	----
2250	----	----	----	----	----	----
2255	Not Detected					
2256	----	----	----	----	----	----
2258	not detected					
2265	< 0,01	< 0,01	< 0,01	< 0,01	< 0,01	< 0,01
2267	----	----	----	----	----	----
2284	nd	nd	nd	nd	nd	nd
2286	----	<0.005	----	<0.005	<0.005	0.603
2288	Unmeasured	Unmeasured	Unmeasured	Unmeasured	Unmeasured	Unmeasured
2289	----	----	----	----	----	----
2290	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2295	----	----	----	----	----	----
2297	Not applicable	Not detected	Not applicable	Not applicable	Not detected	Not applicable
2300	Not analyzed	Not detected	Not analyzed	Not detected	Not detected	Not analyzed
2301	----	----	----	----	----	----
2310	not detected					
2311	Not Detected					
2313	Not Detected					
2314	----	----	----	----	----	----
2316	Not Applicable	Not Detected				
2320	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
2330	Not detected					
2347	<0.005	<0.005	<0.005	<0.005	<0.005	----
2350	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
2352	----	----	----	----	----	----
2353	Not determined					
2354	Not determined	Not detected	Not determined	Not determined	Not determined	Not determined
2355	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
2357	----	----	----	----	----	----
2361	Not determined					
2362	Not determined					
2363	<0.005	<0.005	<0.005	<0.005	<0.005	0.7155
2365	<0.005	<0.005	<0.005	<0.005	<0.005	----
2366	<0.015	<0.015	<0.015	<0.015	<0.015	not analysed
2369	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2370	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
2373	not detected	0.7166				
2375	----	----	----	----	----	----
2376	Not determined					

Lab	DHP	DNPP	DUP	DPrP	DMEP	Other
2378	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2379	Not detected	Not analyzed				
2380	<0.005	<0.005	<0.005	<0.005	<0.005	----
2381	----	----	----	----	----	----
2382	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
2384	not detect<0.05	----				
2386	<0,005	<0,005	<0,005	<0,005	<0,005	<0,005
2387	not analyzed	not analyzed	not analyzed	not analyzed	----	----
2390	----	----	----	----	----	----
2392	Not determined	Not determined				
2406	----	not detected	----	----	----	----
2410	----	----	----	----	----	----
2425	Not Detected	Not Detected				
2426	Not Detected	Not Detected				
2429	----	----	----	----	----	----
2431	----	----	----	----	----	----
2442	Not Detected	Not Detected				
2460	0.0	----	----	----	----	0.417
2474	----	----	----	----	----	----
2475	----	----	----	----	----	----
2476	ND	----	----	----	----	----
2486	----	----	----	----	----	----
2492	----	----	----	----	----	----
2494	not detected	not detected				
2500	not determined	not detected	not determined	not determined	not determined	not determined
2504	Not Analyzed	Not Analyzed				
2507	----	----	----	----	----	----
2510	Not analyzed	----				
2511	----	----	----	----	----	----
2514	----	----	----	----	----	----
2515	----	----	----	----	----	----
2522	-----<0.01	-----	-----	-----	-----	-----
2529	-----	-----	-----	-----	-----	-----
2536	Not Detected	Not Detected				
2538	----	----	----	----	----	----
2543	Not Analyzed	Not Analyzed				
2549	Not Detected	Not Detected				
2560	-----<0.01	-----<0.01	-----<0.01	-----<0.01	-----<0.01	-----
2567	<0.01%	<0.01%	<0.01%	<0.01%	<0.01%	<0.01%
2569	Not Detected	0.646				
2572	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2590	----	----	----	----	----	----
2605	----	<0.0100	----	----	----	----
2622	----	----	----	----	----	----
2668	Not detected	Not detected				
2674	not applicable	not determined	not applicable	not applicable	not applicable	----
2678	----	Not detected	----	----	----	----
2688	----	----	----	----	----	----
2720	not analyzed	not detected	not detected	not detected	not detected	not analyzed
2722	----	Not detected	----	----	----	----
2723	Not detected	Not analyzed				
2727	----	not detected	----	not detected	not detected	----
2736	NA	<0.01	NA	NA	NA	NA
2737	----	----	----	----	----	----
2741	<0.005	<0.005	<0.005	<0.005	<0.005	----
2758	not applicable	not applicable	not detected	not applicable	not detected	not applicable
2798	-----	-----	-----	-----	-----	-----
2826	Not detected	Not detected				
2827	Not Detected	Not Detected				
2829	not detected	not detected				
2835	----	----	----	----	----	----
2846	----	----	----	----	----	----
2864	----	not detected	----	----	----	----
2900	----	----	----	----	----	----
2910	not applicable	not detected	not applicable	not applicable	not applicable	----
2948	ND	ND	ND	ND	ND	3278.26
2953	----	----	----	----	----	----
2955	not detected	not detected				
2959	----	----	----	----	----	----
2960	----	----	----	----	----	----
2977	not analyzed	not detected	not detected	not analyzed	not detected	not analyzed
2979	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
2995	----	----	----	----	----	----
3005	----	----	----	----	----	----
3006	----	----	----	----	----	----
3007	----	----	----	----	----	2.697249
3008	not analyzed	not analyzed				

Lab	DPHP	DNPP	DUP	DPrP	DMEP	Other
3100	--	<0.01	--	<0.01	<0.01	--
3110	-----	-----	-----	-----	-----	-----
3116	-----	-----	-----	-----	-----	-----
3118	-----	-----	-----	-----	-----	-----
3134	-----	-----	-----	-----	-----	not detected
3153	-----	-----	-----	-----	-----	-----
3154	-----	-----	-----	-----	-----	-----
3163	-----	-----	-----	-----	-----	-----
3172	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	-----
3176	-----	-----	-----	-----	-----	-----
3182	Not analyzed	Not analyzed	Not analyzed	Not analyzed	Not analyzed	Not analyzed
3185	-----	not detect<0.01	-----	-----	-----	-----
3190	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
3199	-----	<0.005	-----	-----	-----	-----
3200	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
3209	-----	-----	-----	-----	-----	-----
3210	-----	<0.002	<0.002	<0.002	<0.002	-----
3214	-----	<0.0050	<0.0050	<0.0050	<0.0050	-----
3218	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
3225	-----	-----	-----	-----	-----	-----
3230	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected
3233	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
3237	-----	-----	-----	-----	-----	-----
3239	-----	-----	-----	-----	-----	-----
3248	-----	-----	-----	-----	-----	-----
8005	-----	-----	-----	-----	-----	-----
8008	-----	-----	-----	-----	-----	-----
8030	Not detected	Not detected	Not detected	Not detected	Not detected	Not analyzed
8034	-----	-----	-----	-----	-----	-----
8035	-----	-----	-----	-----	-----	-----

Summary of other Phthalates in sample #22621: results in %M/M

Lab	DIDP	DINP	DNOP	DCHP	DEP	DMP	DNHP
210	----	----	----	----	----	----	----
310	----	----	----	----	----	----	----
339	not detected	not detected	not detected	not detected	not analyzed	not analyzed	not detected
523	not detected	not detected	not detected	not detected	not analyzed	not analyzed	not detected
551	----	----	0.1361	----	----	0.00425	----
622	0.0000	0.0000	0.1073	0.0000	0.0000	0.0000	0.0000
623	not detected	not detected	not detected	not detected	not detected	not detected	not detected
826	----	----	----	----	----	----	----
840	not detected	not detected	not detected	not detected	not detected	not detected	not detected
841	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
1051	----	----	----	----	----	----	----
1213	not detected	not detected	not detected	not detected	not detected	not detected	not detected
2102	Not detected	Not detected	Not detected	Not analyzed	Not analyzed	Not analyzed	Not analyzed
2104	----	----	----	----	----	----	----
2108	----	----	----	----	----	----	----
2115	----	----	----	----	----	----	----
2121	----	----	----	----	----	----	----
2129	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
2132	<0.01	<0.01	<0.01	<0.01	N/A	N/A	<0.01
2137	----	----	----	----	----	----	----
2138	na	na	na	na	na	na	na
2139	----	----	----	----	----	----	----
2146	not detected	not detected	not detected	----	----	----	----
2156	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01
2165	----	not detected	----	not detected	----	----	not detected
2170	----	----	----	----	----	----	----
2177	----	----	----	----	----	----	----
2179	----	----	----	----	----	----	----
2182	----	----	----	----	----	----	----
2184	not detected	not detected	not detected	not detected	not detected	----	not detected
2201	not detected	not detected	not detected	not detected	not detected	not detected	not detected
2202	N.D.	N.D.	N.D.	----	----	----	N.D.
2213	----	----	----	----	----	----	----
2216	None Detected	Not Detected	Not Detected	----	----	----	----
2218	----	----	----	----	----	----	----
2236	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
2250	----	----	----	----	----	----	----
2255	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
2256	----	----	----	----	----	----	----
2258	not detected	not detected	not detected	0.10811	not detected	not detected	not detected
2265	----	----	----	----	----	----	----
2267	----	----	----	----	----	----	----
2284	----	----	----	----	----	----	----
2286	<0.025	<0.025	<0.005	<0.005	<0.005	<0.005	<0.005
2288	Unmeasured	Unmeasured	Unmeasured	Unmeasured	Unmeasured	Unmeasured	Unmeasured
2289	----	----	----	----	----	----	----
2290	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2295	----	----	----	----	----	----	----
2297	Not detected	Not detected	Not detected	Not detected	Not applicable	Not applicable	Not detected
2300	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected
2301	----	#####	----	----	----	----	----
2310	not detected	not detected	not detected	not detected	not detected	not detected	not detected
2311	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
2313	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
2314	----	----	----	----	----	----	----
2316	Not Detected	Not Detected	Not Detected	Not Applicable	Not Applicable	Not Applicable	Not Applicable
2320	<0.005	<0.005	<0.003	<0.003	<0.003	<0.003	<0.003
2330	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected
2347	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2350	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
2352	----	----	----	----	----	----	----
2353	Not detected	Not detected	Not detected	Not determined	Not determined	Not determined	Not determined
2354	Not detected	Not detected	Not detected	Not detected	Not determined	Not determined	Not detected
2355	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
2357	----	----	----	----	----	----	----
2361	Not detected	Not detected	Not detected	Not determined	Not determined	Not determined	Not determined
2362	Not detected	Not detected	Not detected	Not determined	Not determined	Not determined	Not determined
2363	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2365	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2366	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
2369	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2370	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
2373	not detected	not detected	not detected	not detected	not detected	not detected	not detected
2375	----	----	----	----	----	----	----
2376	Not detected	Not detected	Not detected	Not determined	Not determined	Not determined	Not determined

Lab	DIDP	DINP	DNOP	DCHP	DEP	DMP	DNHP
2378	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2379	Not detected						
2380	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2381	-----	-----	-----	-----	-----	-----	-----
2382	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
	Not Detected						
2384	[<0.01]	[<0.01]	[<0.005]	[<0.005]	[<0.005]	[<0.005]	[<0.005]
2386	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2387	not analyzed						
2390	-----	-----	-----	-----	-----	-----	-----
2392	Not detected	Not detected	Not detected	Not determined	Not determined	Not determined	Not determined
2406	not detected	not detected	not detected	not detected	-----	-----	not detected
2410	-----	-----	-----	-----	-----	-----	-----
2425	Not Detected						
2426	Not Detected						
2429	-----	-----	-----	-----	-----	-----	-----
2431	-----	-----	-----	-----	-----	-----	-----
2442	Not Detected						
2460	0.0	-----	0.0	-----	-----	-----	0.0
2474	-----	-----	-----	-----	-----	-----	-----
2475	-----	-----	-----	-----	-----	-----	-----
2476	ND	ND	ND	ND	-----	-----	ND
2486	-----	-----	-----	-----	-----	-----	-----
2492	-----	-----	-----	-----	-----	-----	-----
2494	not detected						
2500	not detected						
2504	Not Detected	Not Detected	Not Analyzed				
2507	<0.100	-----	-----	<0.100	-----	-----	-----
2510	Not determined						
2511	-----	-----	-----	-----	-----	-----	-----
2514	-----	-----	-----	-----	-----	-----	-----
2515	-----	-----	-----	-----	-----	-----	-----
2522	-----	<0.01	-----	<0.01	-----	-----	<0.01
2529	-----	-----	-----	-----	-----	-----	-----
2536	Not Detected						
2538	-----	-----	-----	-----	-----	-----	-----
2543	Not Detected	0.0053	0.0506	Not analyzed	Not analyzed	Not analyzed	Not analyzed
2549	Not Detected						
2560	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2567	<0.01%	<0.01%	<0.01%	<0.01%	<0.01%	<0.01%	<0.01%
2569	Not Detected						
2572	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2590	-----	-----	-----	-----	-----	-----	-----
2605	-----	<0.0100	-----	<0.0100	-----	-----	<0.0100
2622	-----	-----	-----	-----	-----	0.0029	-----
2668	Not detected						
2674	not applicable	not determined	not applicable	not determined	not applicable	not applicable	not determined
2678	-----	Not detected	-----	Not detected	-----	-----	Not detected
2688	-----	-----	-----	-----	-----	-----	-----
2720	not detected						
2722	-----	Not detected	-----	Not detected	-----	-----	Not detected
2723	Not detected	0.0031	Not detected				
2727	not detected	<0.01	not detected				
2736	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2737	-----	-----	-----	-----	-----	-----	-----
2741	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2758	0.0407	not detected	not detected	not detected	not detected	not applicable	not applicable
2798	-----	-----	-----	-----	-----	-----	-----
2826	Not detected						
2827	Not Detected						
2829	not detected						
2835	not detected	not detected	not detected	-----	not detected	0.001299	-----
2846	-----	-----	-----	-----	-----	-----	-----
2864	not determined						
2900	-----	-----	-----	-----	-----	-----	-----
2910	not applicable	not detected	not applicable	not detected	not applicable	not applicable	not detected
2948	ND						
2953	-----	-----	-----	-----	-----	-----	-----
2955	Not detected						
2959	-----	-----	-----	-----	-----	-----	-----
2960	-----	-----	-----	-----	-----	-----	-----
2977	not detected	not detected	not detected	not analyzed	not analyzed	not analyzed	not detected
2979	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
2995	not detected	0.002092	0.109206	-----	-----	-----	-----
3005	-----	-----	-----	-----	-----	-----	-----
3006	-----	-----	-----	-----	-----	-----	-----
3007	Non Detected	Non Detected	0.147236	-----	0.001898	Non Detected	-----
3008	not analyzed	not analyzed	not analyzed	not analyzed	not detected	not detected	not analyzed

Lab	DIDP	DINP	DNOP	DCHP	DEP	DMP	DNHP
3100	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
3110	----	----	----	----	----	----	----
3116	----	----	----	----	----	----	----
3118	----	----	----	----	----	----	----
3134	not detected	not detected	not detected	----	not detected	not detected	not detected
3153	----	----	----	----	----	----	----
3154	----	----	----	----	----	----	----
3163	----	----	----	----	----	----	----
3172	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
3176	----	----	----	----	----	----	----
3182	Not detected	Not detected	Not detected	Not detected	Not analyzed	Not analyzed	Not analyzed
3185	----	not detect<0.01	----	not detect<0.01	----	----	not detect<0.01
3190	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
3199	<0.005	<0.005	<0.005	<0.005	----	----	<0.005
3200	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
3209	----	----	----	----	----	----	----
3210	<0.005	<0.005	<0.002	<0.002	<0.002	<0.002	<0.002
3214	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
3218	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
3225	----	<0.005	----	<0.005	----	----	----
3230	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected
3233	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
3237	----	----	----	----	----	----	----
3239	----	----	----	----	----	----	----
3248	----	----	----	----	----	----	----
8005	----	----	----	----	----	----	----
8008	----	----	----	----	----	----	----
8030	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected
8034	----	----	----	----	----	----	----
8035	----	----	----	----	----	----	----

Summary of other Phthalates in sample #22621; results in %M/M – continued

Lab	DPHP	DNPP	DUP	DPrP	DMEP	Other
210	----	----	----	----	----	----
310	----	----	----	----	----	----
339	not analyzed	not detected	not analyzed	not analyzed	not analyzed	not analyzed
523	not analyzed	not detected	not analyzed	not analyzed	not analyzed	----
551	----	----	----	----	----	----
622	0.0000	----	0.0000	0.0000	0.0000	----
623	not detected					
826	----	----	----	----	----	----
840	not detected	----				
841	<0.003	<0.003	<0.003	<0.003	<0.003	----
1051	----	----	----	----	----	----
1213	not detected					
2102	Not analyzed					
2104	----	----	----	----	----	----
2108	----	----	----	----	----	----
2115	----	----	----	----	----	----
2121	----	----	----	----	----	----
2129	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
2132	N/A	<0.01	N/A	N/A	N/A	N/A
2137	----	----	----	----	----	----
2138	na	na	na	na	na	na
2139	----	----	----	----	----	----
2146	----	----	----	----	----	----
2156	----	<0.01	----	----	<0.01	----
2165	----	not detected	----	----	----	----
2170	----	----	----	----	----	----
2177	----	----	----	----	----	----
2179	----	----	----	----	----	----
2182	----	----	----	----	----	----
2184	----	not detected	----	----	----	----
2201	not detected					
2202	----	----	----	----	----	----
2213	----	----	----	----	----	----
2216	----	----	----	----	----	----
2218	----	----	----	----	----	----
2236	----	Not Detected	----	----	----	----
2250	----	----	----	----	----	----
2255	Not Detected					
2256	----	----	----	----	----	----
2258	not detected					
2265	----	----	----	----	----	----
2267	----	----	----	----	----	----
2284	----	----	----	----	----	----
2286	----	<0.005	----	<0.005	<0.005	0.241
2288	Unmeasured	Unmeasured	Unmeasured	Unmeasured	Unmeasured	Unmeasured
2289	----	----	----	----	----	----
2290	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2295	----	----	----	----	----	----
2297	Not applicable	Not detected	Not applicable	Not applicable	Not detected	Not applicable
2300	Not analyzed	Not detected	Not analyzed	Not detected	Not detected	Not analyzed
2301	----	----	----	----	----	----
2310	not detected					
2311	Not Detected					
2313	Not Detected					
2314	----	----	----	----	----	----
2316	Not Applicable	Not Detected				
2320	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
2330	Not detected					
2347	<0.005	<0.005	<0.005	<0.005	<0.005	----
2350	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
2352	----	----	----	----	----	----
2353	Not determined					
2354	Not determined	Not detected	Not determined	Not determined	Not determined	Not determined
2355	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015
2357	----	----	----	----	----	----
2361	Not determined					
2362	Not determined					
2363	<0.005	<0.005	<0.005	<0.005	<0.005	0.2047
2365	<0.005	<0.005	<0.005	<0.005	<0.005	----
2366	<0.015	<0.015	<0.015	<0.015	<0.015	not analysed
2369	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2370	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
2373	not detected	0.2098				
2375	----	----	----	----	----	----
2376	Not determined					

Lab	DHPH	DNPP	DUP	DPrP	DMEP	Other
2378	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
2379	Not detected	Not analyzed				
2380	<0.005	<0.005	<0.005	<0.005	<0.005	----
2381	----	----	----	----	----	----
2382	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
	Not Detected					
2384	[<0.005]	[<0.005]	[<0.005]	[<0.005]	[<0.005]	----
2386	<0,005	<0,005	<0,005	<0,005	<0,005	<0,005
2387	not analyzed	----				
2390	----	----	----	----	----	----
2392	Not determined					
2406	----	not detected	----	----	----	----
2410	----	----	----	----	----	----
2425	Not Detected					
2426	Not Detected					
2429	----	----	----	----	----	----
2431	----	----	----	----	----	----
2442	Not Detected					
2460	0.0	----	----	----	----	0.227
2474	----	----	----	----	----	----
2475	----	----	----	----	----	----
2476	----	ND	----	----	----	----
2486	----	----	----	----	----	----
2492	----	----	----	----	----	----
2494	not detected					
2500	not determined	not detected	not determined	not determined	not determined	not determined
2504	Not Analyzed					
2507	----	----	----	----	----	----
2510	Not determined	Not analysed	Not analysed	Not analysed	Not analysed	----
2511	----	----	----	----	----	----
2514	----	----	----	----	----	----
2515	----	----	----	----	----	----
2522	----	<0.01	----	----	----	----
2529	----	----	----	----	----	----
2536	Not Detected					
2538	----	----	----	----	----	----
2543	Not analyzed					
2549	Not Detected					
2560	----	<0.01	<0.01	<0.01	<0.01	----
2567	<0.01%	<0.01%	<0.01%	<0.01%	<0.01%	<0.01%
2569	Not Detected	0.186				
2572	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
2590	----	----	----	----	----	----
2605	----	<0.0100	----	----	----	----
2622	----	----	----	----	----	----
2668	Not detected					
2674	not applicable	not determined	not applicable	not applicable	not applicable	----
2678	----	----	----	----	----	----
2688	----	----	----	----	----	----
2720	not analyzed	not detected	not detected	not detected	not detected	not analyzed
2722	----	Not detected	----	----	----	----
2723	Not detected	Not analyzed				
2727	----	not detected	----	not detected	not detected	----
2736	NA	<0.01	NA	NA	NA	NA
2737	----	----	----	----	----	----
2741	<0.005	<0.005	<0.005	<0.005	<0.005	----
2758	not applicable	not applicable	not detected	not applicable	not detected	not applicable
2798	----	----	----	----	----	----
2826	Not detected					
2827	Not Detected					
2829	not detected					
2835	----	----	----	----	----	----
2846	----	----	----	----	----	----
2864	----	not determined	----	----	----	----
2900	----	----	----	----	----	----
2910	not applicable	not detected	not applicable	not applicable	not applicable	----
2948	ND	ND	ND	ND	ND	----
2953	----	----	----	----	----	----
2955	Not detected					
2959	----	----	----	----	----	----
2960	----	----	----	----	----	----
2977	not analyzed	not detected	not detected	not analyzed	not detected	not analyzed
2979	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
2995	----	----	----	----	----	----
3005	----	----	----	----	----	----
3006	----	----	----	----	----	----
3007	----	----	----	----	----	0.279776
3008	not analyzed					

Lab	DPHP	DNPP	DUP	DPrP	DMEP	Other
3100	--	<0.01	<0.01	<0.01	<0.01	--
3110	----	----	----	----	----	----
3116	----	----	----	----	----	----
3118	----	----	----	----	----	----
3134	----	----	----	----	----	not detected
3153	----	----	----	----	----	----
3154	----	----	----	----	----	----
3163	----	----	----	----	----	----
3172	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	----
3176	----	----	----	----	----	----
3182	Not analyzed	Not analyzed	Not analyzed	Not analyzed	Not analyzed	Not analyzed
3185	----	not detect. <0.01	----	----	----	----
3190	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
3199	----	<0.005	----	----	----	----
3200	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
3209	----	----	----	----	----	----
3210	----	<0.002	<0.002	<0.002	<0.002	----
3214	----	<0.0050	<0.0050	<0.0050	<0.0050	----
3218	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
3225	----	----	----	----	----	----
3230	Not detected	Not detected	Not detected	Not detected	Not detected	Not detected
3233	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
3237	----	----	----	----	----	----
3239	----	----	----	----	----	----
3248	----	----	----	----	----	----
8005	----	----	----	----	----	----
8008	----	----	----	----	----	----
8030	Not detected	Not detected	Not detected	Not detected	Not detected	Not analyzed
8034	----	----	----	----	----	----
8035	----	----	----	----	----	----

APPENDIX 3 Analytical details

Lab	ISO17025 accredited	sample further grinded or cut	sample intake (g)	extraction solvent	extraction time (min)	extraction temp (°C)
210	Yes	---				
310	---	---				
339	No	Further cut	0.1g	THF/hexane	30 min	ambiant temperature
523	Yes	Further cut	0.5 g	THF/ACN 1:2	60 min	25 °C
551	Yes	Further cut	0.1g	THF/n-Hexane	60 minutes	60°C
622	Yes	Further cut	0.3 gram	THF/ACN	60 minutes	27°C
623	Yes	Further cut	0.1	THF:Hexane	60	60
826	Yes	Used as received	0.3 g	THF	60 min	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	1 g	Dichloromethane	360 mins	The number of cycle at least 4 times/ hour
1213	---	---				
2102	Yes	Further cut	0.150	THF/hexane	60	Ambient
2104	Yes	Used as received	2.047	Dichloromethane	Shake 2 hours, standing 16 hours.	23
2108	Yes	Used as received	0.5 g	THF / Hexan	60 min	60°C
2115	Yes	Used as received	0.05g	THF:Hexane 1:2	138 min	Room temperature
2121	Yes	Further cut	0,3g	THF/Hexane	60 minutes	60°C
2129	Yes	Used as received	0,5g	THF	60 min	60°C
2132	Yes	Used as received	0.05 gram	THF and n-hexane	150 minutes	Room Temperature
2137	Yes	Further cut	0.3	THF:10mL ACN:20mL	120 MIN	40
2138	No	Used as received	about 0.1g	THF & ACN	about 90 minutes	40 C
2139	Yes	Further cut	0.05	THF / Hexane	60	60
2146	Yes	Further cut	0,050 g	THF	150	ambient temperature
2156	Yes	Further cut	0.05g	THF/Hexane	60 minutes	
2165	Yes	Used as received	0.2g	THF	60 minutes	60 °C
2170	Yes	Further cut	0.05g	THF/Hexane	90mins	40C
2177	No	Further grinded	0.1g	toluene	60minutes	110°C
2179	---	---	0.1g	toluene	60 minutes	110 °C
2182	Yes	Used as received	0.05	THF	30MIN	
2184	Yes	---	n.a.	n.a.	n.a.	n.a.
2201	Yes	Further cut	50mg	TFH	120min	Room temperature
2202	No	Used as received	0.5 g	Over 12 hrs	G3452-80570	Room temperature
2213	Yes	Further cut	app 0.70 grams 5.0978g between	THF and n-Hexane	30 minutes	23°C
2216	Yes	Further grinded	both samples	App 120 mL n-hexane	360 minutes	Reflux
2218	Yes	Further cut	0.5	THF/Hexane	120	40
2236	Yes	Further cut	0.0483 gm	THF/n-Hexane (1:2)	60	60
2250	Yes	Further cut	0,3 g	THF/ACN 1:2	120 min	40 °C
2255	Yes	Further cut	0.3	THF+n-Hexane	60	60
2256	Yes	Further cut	1.0019 g	DCM	60 mins	Room temperature
2258	Yes	Further cut	both 0.0666 g	THF/ACN	120 Minutes	40
2265	Yes	Further cut	0,3	THF	60	60
2267	---	---	0.15	hexaan	3 uur	
2284	Yes	Further cut	0.3g	THF/Hexane 2:1	60 min	60°C
2286	No	Further grinded	0.5g	Acetone/Hexane	16 hours	40°C
2288	Yes	Further grinded	0.1g	THF	60min	room temperature
2289	Yes	Further cut	0.05g	THF	30min	
2290	Yes	---				
2295	Yes	Further cut	0.05 grams	THF/n-hexane	120 minutes	22 C
2297	Yes	Used as received	0.3	THF/Acetonitrile	60	40
2300	Yes	Further cut	0.15 gram	THF and n-Hexane	60 minutes.	60°C
2301	Yes	Used as received	0.3 gram	THF:ACN	30min ifndu 2hours	40c
2310	Yes	Further cut	0.3	THF and Hexane	60 minutes	60 °C
2311	Yes	Further cut	0.1	THF/Hexane	60	60
2313	Yes	Further cut	0.3g	THF / ACN	60 °C	60 min
2314	Yes	Further cut	0.5 gms	THF/n-Hexane	60 minutes	60°C
2316	Yes	Further cut	0.3 gram	THF & ACN	60 minutes	--
2320	Yes	Further cut	0.1g	THF	60min	60°C
2330	Yes	Further cut	0.05 g	THF : Hexane ratio 1:2	30 min	40 °C
2347	---	---				
2350	Yes	Further cut	0.1g 0.2g	THF + ACN	2h 30min	60 °C
2352	Yes	Further cut	0.1g	THF+Hexane	60min	60°C
2353	Yes	Used as received	0.15	THF	60	50
2354	Yes	Used as received	0.05	THF	30	Room Temp
2355	Yes	Further cut	0.3g	THF	60min	60
2357	---	---				
2361	Yes	Used as received	1g	DCM	360	Soxhlet extraction

Lab	ISO17025 accredited	sample further grinded or cut	sample intake (g)	extraction solvent	extraction time (min)	extraction temp (°C)
2362	Yes	Used as received	1g	DCM	360	Soxhlet extraction
2363	Yes	Further cut	2.0g	THF	60min	60°C
2365	Yes	Further grinded	0.1g	THF:n-Hexane =1:2	60min	60°C
2366	Yes	Further cut	0.1	THF/n-hexane	60	60
2369	---	---		THF : HEX=10 : 20mL		
2370	Yes	Further cut	0.3g	THF : ACN=10 : 20mL	60 min	Room temperature
2373	Yes	Further cut	0.1g	THF, hexane	60min	60°C
2375	Yes	Further cut	0.05gr	THF	30 min	Room temperature
2376	Yes	Used as received	1g	Actone:n-Hexane (3:7)	840	40
2378	Yes	Used as received	0.3	THF:N-HEXANE	60min	60
2379	Yes	Further grinded	0.3 g	THF : ACN	60 min	60 °C
2380	Yes	Used as received	0.1 g	Tetrahydrofuran (THF)	60 Minute	60 °C
2381	Yes	Further cut	0.1 Gram	THF+n-Hexane	60 minutes.	60.
2382	Yes	Further cut	0.1g	THF	60min	60
2384	Yes	Further grinded	0.3g	tetrahydrofuran	60min	60°C
2386	Yes	Used as received	~ 0,5 g	THF	60 min	60 °C
2387	Yes	Further grinded	0.3g	tetrahydrofuran	60min	60
2390	Yes	Further cut	0.1g	THF / Hexane	60	60
2392	Yes	Further grinded	1.5 g	THF : ACN 1 : 2	60 min	60 degree calcius
2406	Yes	Further cut	0.05g	Tetrahydrofuran (THF)	30 minutes	Room temp.
2410	Yes	Further cut	0.2 g	THF	30 min	70 °C
2425	Yes	Further cut	0.3g	THF : n-Hexane (1:2)	60 minutes	60 °C
2426	Yes	Further cut	0.1gram	THF / n-Hexane	30min	24°C
2429	Yes	Further cut	0.1g	THF/n-Hexane	60min	60°C
2431	---	---	0.05g	THF : n-Hexane	180mins	Room temperature
2442	Yes	Further cut	0.1027g	THF and ACN	60 minutes	40 °C
2460	Yes	Further cut	0.05 g	5mLTHF:10mL Hexane	45 min	21°C at star
2474	Yes	Used as received	1.0 gram	Dichloromethane	soxhlet 6 hours	60°C
2475	Yes	Used as received	0.13g	toluene	60	60
2476	Yes	Further cut	0.15 gm	THF/Acetonitrile	30 min	22.5 °C
2486	Yes	Used as received	0.3002/- 0.3015g	THF : ACN (1:2)	120 minutes	40°C
2492	Yes	Further cut	0.3 g	THF:Hexane (1:2)	60 mins	60 degree
2494	Yes	Used as received	0.1 gram	THF/Hexane	60 minutes	60 °C
2500	Yes	Further cut	0.3g	THF	120 minutes	40°C
2504	Yes	Further cut	0.3 grams	THF/Hexane	60 min	room temperature
2507	Yes	Further grinded	0.05g	5mLTHF10mL Hexane	30 min (extraction)	35°C
2510	Yes	Used as received	0.005	Acetonitrile	1 minute	Not applicable
2511	Yes	Used as received				
2514	Yes	Further grinded	0.1095/0.1105 g	THF:n-hexane10:20 mL	60min +/- 5min	60°C +/- 5°C
2515	Yes	Used as received	0.3 grams	THF:ACN	30 minutes	40 °C
2522	Yes	Further cut	0.1 g	THF	150 min	Room temperature
2529	No	Used as received	0.0500-0.0800 g	THF/acetonitrile	30	
2536	Yes	Further cut	0.3005	THF: ACN (1:2)	30 minutes	40°C
		0,3 g per approach				
2538	Yes	Further cut	1.5 g	Tetrahydrofuran	120 min	60 °C
2543	Yes	Further cut	1.5 g		960 minutes (16 h)	approx. 80 °C
2549	Yes	Further cut	0.5 grams	THF + n-Hexane	60	60
2560	Yes	Further cut	0.3 gm	THF&Hexane mixture	60 minutes	60 °C
2567	Yes	Further grinded	0.05 gm	THF:Hexane	30 min	30 minutes
2569	Yes	Further cut	0.2 g	THF & ACN	30 min	60°C
2572	Yes	---				
2590	Yes	Used as received	0.3g	thf:hex 1:2	60 min	60°C
2605	Yes	Further cut	0.0500	THF	30	room temperature
		Hexane:acetone				
2622	Yes	Used as received	1 g and 0.1 g	Hexane:THF	60 min and 30 min	50 for both methods
2668	Yes	Further cut	0.2 gms	THF:Hexane (1:3)	60 minutes	60C
2674	Yes	Further cut	2.0g	THF/n-Hexane	not applicable	not applicable
2678	Yes	Further cut	0.05 g	THF + Hexane	30 min	Room temperature
2688	Yes	Used as received	0.3 g	THF	30 min	40 °C
2720	Yes	Further cut	0.05g	THF with n-Hexane	60min	room temperature
2722	Yes	Further cut	0.15g / trial	THF	30 min	50C
2723	Yes	Used as received	0.5g or 1g	Toluene	60 min	60°C
2727	Yes	Used as received	0.5	isooctane	60	60
2736	Yes	Used as received	0.5g	15 mL THF	1 hr	Room temp
2737	Yes	Other	0.5	THF/n-Hexane	60min	60
2741	Yes	Further cut	0.5	THF:n-hexane	60	60
2758	No	Further cut	0.15g	THF	60	60
2798	Yes	Further cut	0.3g	THF/Hex	30	50
2826	Yes	Further cut	0.1g	THF/ Hexane	30 mins	Room temperature
2827	Yes	Further cut	0.3g	THF/n-Hexane	60 mins	60 c

Lab	ISO17025 accredited	sample further grinded or cut	sample intake (g)	extraction solvent	extraction time (min)	extraction temp (°C)
2829	Yes	Further cut	0.05	THF/Hexane	30	30
2835	Yes	Further cut	Approx 0.5g	Methylene Chloride	5 minutes	100 degree celcius
2846	Yes	Further cut	0.534 ~ 0.579 g	THF & Methanol	Ultrasoinc 60min	40~50 degree
2864	Yes	Used as received	0.05	THF/Hexane	60	60
2900	Yes	Further cut	0.1068/0.1015g	THF - ACN	120 MINUTES	40 °C
2910	Yes	Further cut	1g	THF and Heaxane	30min	40
2948	Yes	Used as received	0.3 gm	THF/ACN	60minutes	60°C
2953	Yes	Further cut	0.1	THF / hexane	30	40
2955	Yes	Further cut	0.5	THF/n-Hexane	60	60
2959	---	---				
2960	Yes	Used as received	0.05g	THF/n-Hexane	30min	60°C
2977	No	Used as received	1 g	THF	60 min	60°C
2979	No	Used as received	0.05 g	THF	30	RT
2995	No	Other	0.5 mg	GC/MS pyrolysis	No need extraction	No need extraction
3005	No	Further cut	0.3 g	THF	60	40
3006	Yes	Further cut	0.5mg			
3007	Yes	Used as received	0.5096/0.5019 g	Tetrahydrofuran (THF)	60 minutes	Ambient temperature
3008	Yes	Used as received				
3100	Yes	Further cut	0.0553g	THF	30mins	room temperature
3110	---	---				
3116	Yes	Used as received	#22620, 0.3g #22621, 1g	#22620, THF:ACN 1:2 #21 Acetone: n-hexane	120mins, 720mins	40°C
3118	Yes	Further cut	0.05	Tetrahydrofuran	120	room temperature
3134	Yes	Further cut	0.025 grams	THF/hexane	for 2 hours	room temperature
3153	Yes	Used as received	0.1 gram	Tetrahydrofuran (THF)	150 minutes	Room Temperature
3154	Yes	Used as received	0,5	Toluene	60	50
3163	No		0.02g	ethanol	120min	100C
3172	Yes	---				
3176	Yes	Further cut	2 g	Diethylether / n-hexane	300 min	Boiling Point
3182	Yes	Further grinded	0.05 grams	n-Hexane :THF (2:1)	2 hours	room temperature
3185	Yes	Further cut	0.05g	Tetrahydrofuran	150min	Room temperature
3190	Yes	Used as received	0.05g	THF n-hexane	30min	room temperature
3199	No	Used as received	0.3	THF	120	40
3200	Yes	Used as received	0.05g	THF	1 Hour	Room temperature
3209	Yes	Further cut	0.05g	15ml	60min	room temp
3210	Yes	Used as received	1	Toluène	60	60
3214	Yes	Further cut	0.5	THF:Hexane=1:2	60	70
3218	Yes	Used as received	0.05g	TFH	30MIN+60MIN*2	/
3225	Yes	Further cut	0.1	THF/n-Hexane	60	70
3230	Yes	Further cut	0.1g	Tetrahydrofuran	60 minutes	60°C
3233	No	Further cut	0.3g	THF/ACN	120	40°C
3237	Yes	Further cut	0,1	THF/HEXANE	30	40
3239	Yes	Further grinded	0.1g	Hexane	360mins	150degC
3248	No	Used as received	0.05g	THF	30 mins	Room temperature
8005	Yes	Used as received	1g	Dichloromethane	360 mins	Reflux
8008	---	---				
8030	Yes	Further grinded	0.1g	THF : Hexane	30 minutes	60 °C
8034	Yes	Used as received	2g	THF diss Hexane prec		
8035	Yes	Used as received	2g per sample	THF diss Hexane prec		

APPENDIX 4**Number of participants per country**

8 labs in BANGLADESH
2 labs in BRAZIL
2 labs in CAMBODIA
1 lab in DENMARK
2 labs in EGYPT
1 lab in FINLAND
5 labs in FRANCE
8 labs in GERMANY
3 labs in GREECE
1 lab in GUATEMALA
24 labs in HONG KONG
11 labs in INDIA
5 labs in INDONESIA
1 lab in IRELAND
7 labs in ITALY
4 labs in JAPAN
10 labs in KOREA, Republic of
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 PORTUGAL
4 labs in SINGAPORE
1 lab in SPAIN
1 lab in SRI LANKA
2 labs in SWITZERLAND
4 labs in TAIWAN
5 labs in THAILAND
4 labs in THE NETHERLANDS
3 labs in TUNISIA
5 labs in TURKEY
5 labs in U.S.A.
8 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

- 1 iis Interlaboratory Studies, Protocol for the Organisation, Statistics & Evaluation, June 2018
- 2 ISO5725:86
- 3 ISO5725 parts 1-6:94
- 4 ISO13528:05
- 5 M. Thompson and R. Wood, J. AOAC Int, 76, 926, (1993)
- 6 W.J. Youden and E.H. Steiner, Statistical Manual of the AOAC, (1975)
- 7 P.L. Davies, Fr. Z. Anal. Chem, 331, 513, (1988)
- 8 J.N. Miller, Analyst, 118, 455, (1993)
- 9 Analytical Methods Committee, Technical Brief, No 4, January 2001
- 10 P.J. Lowthian and M. Thompson, The Royal Society of Chemistry, Analyst, 127, 1359-1364, (2002)
- 11 W. Horwitz and R. Albert, J. AOAC Int, 79.3, 589-621, (1996)
- 12 Bernard Rosner, Percentage Points for a Generalized ESD Many-Outlier Procedure, Technometrics, 25(2), 165-172, (1983)
- 13 R.G. Visser, Reliability of proficiency test results for metals and phthalates in plastics, Accred Qual Assur, 14, 29-34 (2009)
- 14 Annex XVII to REACH Regulation 1907/2006
- 15 iis memo 1701: Precision data of Phthalates in plastic, www.iisnl.com, News and Report page (July 2017)