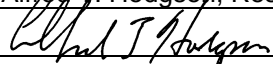


BERKELEY ANALYTICAL ASSOCIATES, LLC
 815 Harbour Way South, Suite 6
 Richmond, CA 94804
 Ph.: 510-236-2325; Fax: 510-236-2335
 E-mail: baalab@berkeleyanalytical.com

**CONTENT OF PHTHALATE ESTERS IN CHILDREN'S TOYS
 & CHILDCARE ITEMS
 By Method CPSC-CH-C1001-09.2
 and U.S. EPA Method 8270D**

Laboratory Test Report

Page 1; Customer & Product Sample Information

Report Certification	
Report number.....	448-001-01-PHTHLT-Sep1809
Report date.....	September 18, 2009
Certified by (Name/Title).....	Alfred T. Hodgson, Research Director
Signature	
Date.....	September 21, 2009

Customer Information	
Manufacturer or organization.....	I Spy a family
City/State/Country.....	Kirkland, WA, USA
Contact name/Title.....	Molly Rhoten / Owner
Phone number.....	425-941-3704

Product Sample Information	
Product name / Number.....	The Trip Clip
Product description.....	Clipboard, pen clip and orange pen
Customer sample ID.....	Not given
Date sample manufactured.....	Not given
Date sample collected.....	Not given
Date sample shipped.....	September 14, 2009
Date sample received by lab.....	September 16, 2009
Condition of received sample.....	No observed problems
Lab sample tracking number.....	448-001-01
Analysis date.....	September 17, 2009
Analyst.....	N. Li

Page 2; Test Results

Test Results – The results of the quantitative analysis of the test item for its extractable content of six target phthalate esters by Method CPSC-CH-C1001-09 are presented in Tables 1 and 2.

Table 1. Quantitative GC/MS Analysis of test item for content of 3 phthalate esters, CPSIA, Sec. 108 (a); Test Item 448-001-01 (The Trip Clip)

Compound	CAS #	MW	MDL ^a (% Weight)	Phthalate Content (% Weight)				
				Composite A ^b			Composite B ^c	
				A1	A2	A3	B1	B2
Di-n-Butyl phthalate	84-74-2	278	0.001	Nd ^d	Nd	Nd	Nd	Nd
Benzyl butyl phthalate	85-68-7	312	0.001	Nd	Nd	Nd	Nd	Nd
Di-(2-Ethylhexyl) phthalate (DEHP)	117-81-7	390	0.001	Nd	Nd	Nd	Nd	Nd

- MDL (method detection limit) determined by extraction & analysis of low level standard spiked to sand; calculation assumes 0.05 g sample, 15 mL final volume and no dilution.
- Components of Composite A are: A1 – 0.0334 g clear pen refill; A2 – 0.0352 g orange pen shell; A3 – 0.0295 g clear pen shell.
- Components of Composite B are: B1 – 0.0271 g white pen clip; B2 – 0.0294 g blue clipboard.
- Nd = not detected; value below MDL.

Table 2. Quantitative GC/MS Analysis of test item for content of 3 phthalate esters, CPSIA, Sec. 108 (b) (1); Test Item 448-001-01 (The Trip Clip)

Compound	CAS #	MW	MDL ^a (% Weight)	Phthalate Content (% Weight)				
				Composite A ^b			Composite B ^c	
				A1	A2	A3	B1	B2
Di-n-octyl phthalate	117-84-0	390	0.001	Nd ^d	Nd	Nd	Nd	Nd
Diisononyl phthalate (DINP)	68515-48-0 28553-12-0	~418	0.012	Nd	Nd	Nd	Nd	Nd
Diisodecyl phthalate (DIOP)	68515-49-1 26761-40-0	~446	0.013	Nd	Nd	Nd	Nd	Nd

- MDL (method detection limit) determined by extraction & analysis of low level standard spiked to sand; calculation assumes 0.05 g sample, 15 mL final volume and no dilution.
- Components of Composite A are: A1 – 0.0334 g clear pen refill; A2 – 0.0352 g orange pen shell; A3 – 0.0295 g clear pen shell.
- Components of Composite B are: B1 – 0.0271 g white pen clip; B2 – 0.0294 g blue clipboard.
- Nd = not detected; value below MDL.

Summary of Test Results – The tested plasticized components in the tested item 448-001-01 (The Trip Clip), did not contain any of the six phthalate esters of concern above the 0.1 percent by weight criterion given in CPSIA, Sec. 108 (a) and Sec. 108 (b) (1).

Page 3, Background, Sample Preparation, GC/MS Analysis

Background – Pursuant to the “Consumer Product Safety Improvement Act of 2008, Section 108, Prohibition on Sale of Certain Products Containing Specified Phthalates” it is unlawful within 180 days after the date of enactment for any person to manufacture for sale, offer for sale, distribute in commerce, or import into the United States any children’s toy or child care article that contains concentrations of more than 0.1 percent of di-(2-ethylhexyl) phthalate (DEHP), dibutyl phthalate (DBP), or benzyl butyl phthalate (BBP). Furthermore, it is unlawful within the same time period and until a final rule is promulgated for any person to manufacture for sale, offer for sale, distribute in commerce, or import into the United States any children’s toy that can be placed in a child’s mouth or child care article that contains concentrations of more than 0.1 percent of diisononyl phthalate (DINP), diisodecyl phthalate (DIDP), or di-n-octyl phthalate (DnOP).

On August 7, 2009, CPSC published the “Statement of Policy: Testing of Component Parts with respect to Section 108 of the CPSIA” and the corresponding testing method CPSC-CH-C1001-09.2. In this statement, the component parts that may contain phthalates are tested instead of the whole toy because a whole-toy result may dilute the result of the component part that contains very high phthalate content.

Method – CPSC Test Method CPSC-CH-C1001-09.2, July 27, 2009 was used for this test.

Sample Preparation – The whole product was weighed. Representative pieces with no dimension exceeding 3 mm were scraped off the blue hard plastic clipboard. Representative pieces with no dimension exceeding 5 mm were cut randomly from the white hard plastic pen clip and approximately 0.7 g of the cut materials was cryogenically milled under liquid nitrogen until the final sizes of the individual material fragments were less than 1 mm in all dimensions. An aliquot of the scraped blue plastic clipboard and milled white pen clip sample were weighed separately and combined to make composite A. Composite A was transferred to a 20-mL scintillation vial for extraction following the CPSC method. Representative pieces with no dimension exceeding 5 mm were cut randomly from the clear hard plastic pen shell, orange hard plastic pen shell and clear hard plastic pen refiller respectively and approximately 1 g of each of the cut materials was cryogenically milled individually under liquid nitrogen until the final sizes of the individual material fragments were less than 1 mm in all dimensions. An aliquot of the milled clear plastic pen shell, orange plastic pen shell and clear plastic pen refiller sample were weighed separately and combined to make composite B. Composite B was transferred to a 20-mL scintillation vial for extraction following the CPSC method. A Laboratory Method Blank was concurrently treated and analyzed.

GC/MS Analysis of Target Phthalate Esters – The GC/MS method used for the analysis of phthalates esters is based on U.S. EPA Method 8270D “Semivolatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS).” Prior to analysis, internal standards (ISTDs) are added to the sample extract. The ISTDs are acenaphthene-d10, phenanthrene-d10 and chrysene-d12. The sample extract is introduced into a GC/MS system (Model 3800GC/4000 MS/MS, Varian) using splitless injection. The GC is fitted with a 30-m, 0.25-mm ID, 0.25- μ m film low-polarity column. The MS detector is operated in the SCAN mode over a mass range of m/z 50-450. Calibration curves are prepared using standard solutions purchased from accredited suppliers. Multi-point, internal standard calibrations referenced to one of the nearest eluting internal standards are constructed using an extracted ion for quantitation and one or more additional extracted ions for peak confirmation. A method detection limit (MDL) is determined by spiking a low level standard to sand and processing the sample through the extraction and analysis procedures according to the procedure in EPA 40CFR 136, Appendix B.

Page 4, Calculations

Phthalate Content Calculations – Phthalate Content in % Weight for each sample is calculated using Equation 1:

$$PhthalateContent(\%Weight) = \frac{FinalConc.(ng / ul) \times FV^* (ml) \times 10^3 ul / ml \times DF^*}{SampleMassExtracted(g) \times 10^9 ng / g} \times 100 \quad (1)$$

*FV = Final extract volume; DF = Dilution factor

Calculations for testing of composite samples – Composite testing of similar plasticized parts is appropriate and may be used to obtain valid analytical results. Composite testing of different parts must be done with adequate care, planning, and understanding of the limitations and propagation of error in measurements or the test may fail to detect excessive phthalates in one individual component due to dilution. All of the mass of a phthalate found in the extract for the composite are attributed to the weight of each individual plasticized component as though it originated solely from one component. The phthalate concentration calculation is carried out for each component by using the actual weight of the component. If the calculation indicates a failure with respect to the criterion, then each component must be extracted and analyzed separately to determine compliance.

Page 5, Photograph of Material

Figure 1. Test Item 448-001-01 (The Trip Clip)



END OF REPORT

