



January 30, 2009

Project # 09.013

Powderhorn Industries
931 N. Park Ave, PO Box 1443
Montrose, Co 81402

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Attn: Robb Ruyle

Phthalates Analysis

Approximately 1 g of material from each sample was removed and extracted in dichloromethane (S. Rastogi, Chromatographia Vol. 47, No.784, 1998). GC/FID analysis was carried out with seven calibrated phthalate peaks including the six regulated phthalates by the CPSC regulations.

This report contains the results of GC/FID on samples submitted by R. Ruyle on 1/20/09.

Comment

GC integrations and chromatograms are attached. False positives on integrations are confirmed manually by a trained technician.

R. M. Fisher, PhD
Chief Scientist

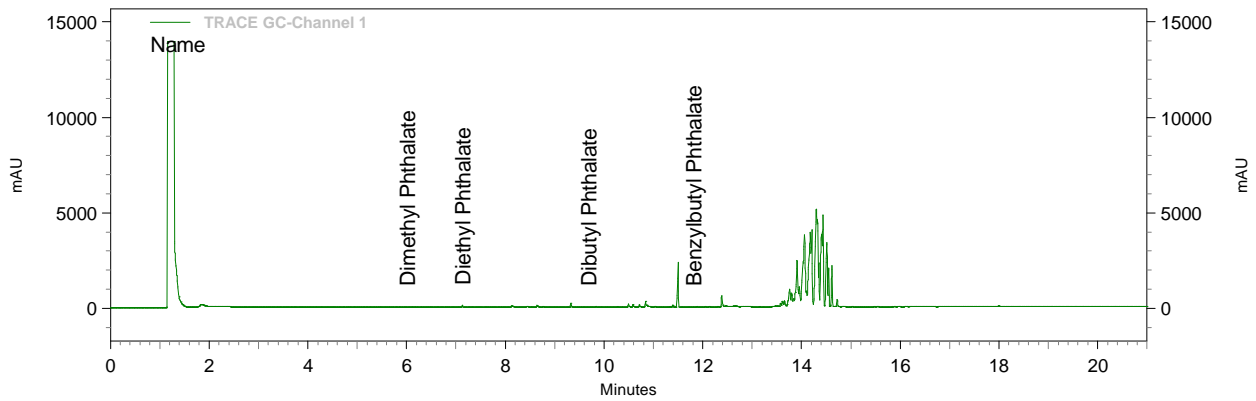
C. K. Brown
Laboratory Manager



LCM Sample ID	Client Sample ID	Description	Results (ppm)	
09.013-01	White terry/PVC laminate	Laminated fabric, white	DMP	57.5
			DEP	293.5
			DBP	61.7
			BBP	45.6
			DEHP	< 10.0
			DnOP	< 10.0
			DINP	< 25.0
			DIDP	< 25.0
09.013-02	Blue Terry/PVC laminate	Laminated fabric, blue	DMP	92.3
			DEP	72.3
			DBP	72.6
			BBP	< 10.0
			DEHP	< 10.0
			DnOP	< 10.0
			DINP	< 25.0
			DIDP	< 25.0
09.013-03	White nonwoven/ PVC laminate	Laminated fabric, white	DMP	20.0
			DEP	50.8
			DBP	71.8
			BBP	< 10.0
			DEHP	< 10.0
			DnOP	< 10.0
			DINP	< 25.0
			DIDP	123,700

Lab/Cor Materials - GC/FID Phthalate Analysis

Method Name: C:\ChromQuest\Projects\Default\Method\Modified Phthalate Method Tighter Windows.met
 Data: C:\ChromQuest\Projects\Default\Data\09.013-01a White bib 1.045g in 65ml DCM.dat
 User: System
 Acquired: 1/27/2009 12:14:16 PM
 Printed: 1/27/2009 1:07:23 PM
 Vial: 20



TRACE
GC-Channel 1
Results (System
(1/27/2009
12:35:27 PM)
(Original))

Pk #	Name	Retention Time	Area	ESTD concentration
29	Dimethyl Phthalate	6.017	286282	0.847
38	Diethyl Phthalate	7.132	1563282	4.321
61	Dibutyl Phthalate	9.692	366819	0.908
78	Benzylbutyl Phthalate	11.817	296779	0.671
	Bis(2-ethylhexyl) Phthalate			0.000 BDL
	Di-n-Octyl Phthalate			0.000 BDL
	Diisodecyl Phthalate		488034176	2170.232

Instrument Name: GC/FID Software Version: Version 3.1.6
 Acquisition Method: C:\ChromQuest\Projects\Default\Method\Modified Phthalate Method Tighter Windows.met

Lab/Cor Materials - GC/FID Phthalate Analysis

Method Name: C:\ChromQuest\Projects\Default\Method\Modified Phthalate Method Tighter
Windows.met
Data: C:\ChromQuest\Projects\Default\Data\09.013-01a White bib 1.045g in 65ml DCM.dat
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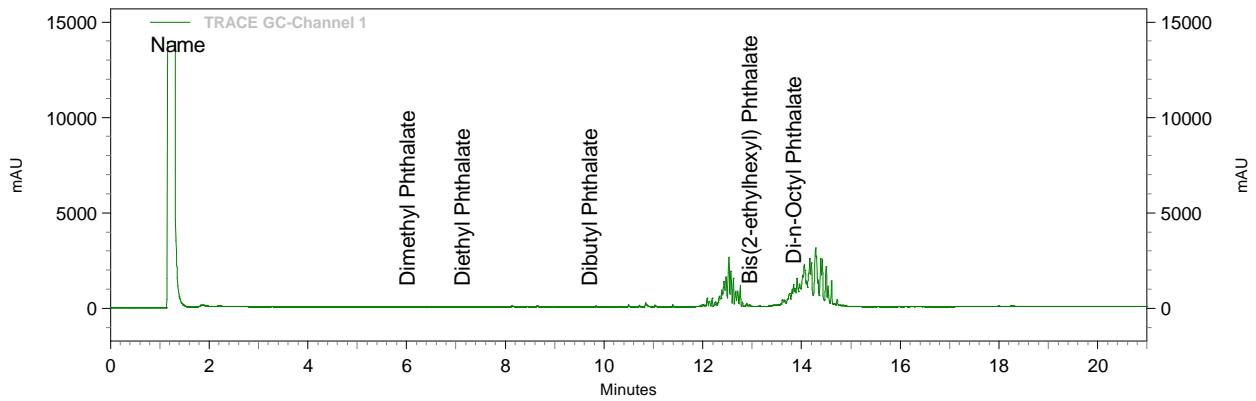
Diisononyl 946917888 2154.962
Phthalate

Totals			1437465226	4331.941
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Instrument Name: GC/FID **Software Version:** Version 3.1.6
Acquisition Method: C:\ChromQuest\Projects\Default\Method\Modified Phthalate Method Tighter
Windows.met

Lab/Cor Materials - GC/FID Phthalate Analysis

Method Name: C:\ChromQuest\Projects\Default\Method\Modified Phthalate Method Tighter Windows.met
 Data: C:\ChromQuest\Projects\Default\Data\09.013-02 Blue bib 1.079g in 75ml DCM.dat
 User: System
 Acquired: 1/27/2009 12:40:32 PM
 Printed: 1/27/2009 1:06:02 PM
 Vial: 21



TRACE
GC-Channel 1
Results (System
(1/27/2009
1:01:38 PM)
(Original))

Pk #	Name	Retention Time	Area	ESTD concentration
29	Dimethyl Phthalate	6.010	385843	1.141
37	Diethyl Phthalate	7.125	323205	0.893
60	Dibutyl Phthalate	9.698	362456	0.897
	Benzylbutyl Phthalate			0.000 BDL
87	Bis(2-ethylhexyl) Phthalate	12.940	4399539	9.300
93	Di-n-Octyl Phthalate	13.840	50415058	106.690
	Diisodecyl Phthalate		324204800	1441.702

Instrument Name: GC/FID Software Version: Version 3.1.6
 Acquisition Method: C:\ChromQuest\Projects\Default\Method\Modified Phthalate Method Tighter Windows.met

Lab/Cor Materials - GC/FID Phthalate Analysis

Method Name: C:\ChromQuest\Projects\Default\Method\Modified Phthalate Method Tighter
Windows.met
Data: C:\ChromQuest\Projects\Default\Data\09.013-02 Blue bib 1.079g in 75ml DCM.dat
User: System
Acquired: 1/27/2009 12:40:32 PM
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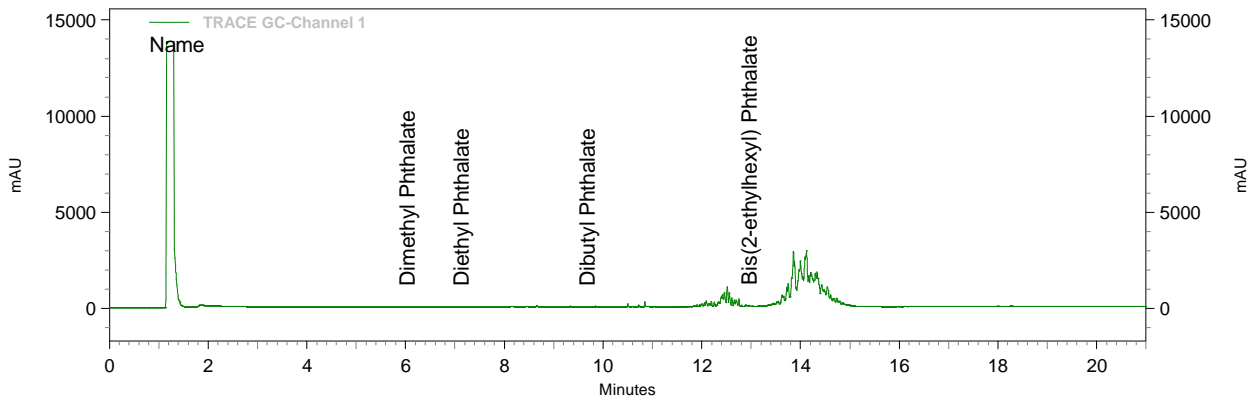
Diisononyl 677196800 1541.141
Phthalate

Totals			1057287701	3101.764
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Instrument Name: GC/FID Software Version: Version 3.1.6
Acquisition Method: C:\ChromQuest\Projects\Default\Method\Modified Phthalate Method Tighter
Windows.met

Lab/Cor Materials - GC/FID Phthalate Analysis

Method Name: C:\ChromQuest\Projects\Default\Method\Modified Phthalate Method Tighter Windows.met
 Data: C:\ChromQuest\Projects\Default\Data\09.013-03 1.070g in 75ml DCM.dat
 User: System
 Acquired: 1/28/2009 10:24:10 AM
 Printed: 1/30/2009 1:11:32 PM
 Vial: 23



TRACE
GC-Channel 1
Results (System
(1/28/2009
10:45:18 AM)
(Original))

Pk #	Name	Retention Time	Area	ESTD concentration
35	Dimethyl Phthalate	6.033	84323	0.249
42	Diethyl Phthalate	7.127	229014	0.633
66	Dibutyl Phthalate	9.675	361521	0.895
	Benzylbutyl Phthalate			0.000 BDL
97	Bis(2-ethylhexyl) Phthalate	12.960	2771546	5.859
	Di-n-Octyl Phthalate			0.000 BDL
	Diisodecyl Phthalate		357550112	1589.984

Instrument Name: GC/FID Software Version: Version 3.1.6
 Acquisition Method: C:\ChromQuest\Projects\Default\Method\Modified Phthalate Method Tighter Windows.met

Lab/Cor Materials - GC/FID Phthalate Analysis

Method Name: C:\ChromQuest\Projects\Default\Method\Modified Phthalate Method Tighter
Windows.met
Data: C:\ChromQuest\Projects\Default\Data\09.013-03 1.070g in 75ml DCM.dat
User: System
Acquired: 1/28/2009 10:24:10 AM
Printed: 1/30/2009 1:11:32 PM
Vial: 23

Diisononyl 843411776 1919.407
Phthalate

Totals			1204408292	3517.027
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Instrument Name: GC/FID Software Version: Version 3.1.6
Acquisition Method: C:\ChromQuest\Projects\Default\Method\Modified Phthalate Method Tighter
Windows.met