



Test Report

Number : TWNC00138791

Applicant: Bestchem Corp.
No 15 Lane 192 Sec 2
Nan San Rd Lu-Chu Hsiang
Taoyuan Hsien Taiwan ROC

Date : Nov 18, 2009

Sample Description:

One (1) can of submitted sample said to be :
Material Name & Code : NPL-9800
Material Colour & Code : White
Material Composition : Printng Paste
Category : Adult
Test Type : SI (Supplier Inner Test)
Buyer's Name : adidas
Vendor's Name : -
Supplier/Contact Person : Bestchem Corp.
Country Of Supplier : -
Lot No./Purchase Order No. : -
Date Sample Received : Nov 10, 2009
Date Test Started : Nov 11, 2009

Test Conducted:

As requested by the applicant, for details please refer to attached pages.

Conclusion:

Please see page two.

Authorized By:

On Behalf Of Intertek Testing Services
Taiwan Limited



K. Y. Liang
Director

This report shall not be reproduced
except in full, without the written
approval of the laboratory.



Test Report

Number : TWNC00138791

Conclusion:

<u>Tested Sample</u>	<u>Standard</u>	<u>Result</u>
Submitted Sample	adidas A-01 Policy Version No.07 Testing Requirements	
	- Azo Dyes (Amines)	M
	- Formaldehyde	M
	- Heavy Metal Analysis	M
	- Total Cadmium	M
	- Total Lead	M
	- Chromium VI	M
	- Monobutyltin (MBT)	M
	- Dibutyltin (DBT)	M
	- Tributyltin (TBT)	M
	- Triphenyltin (TPhT)	M
	- Phthalate	M
	- PVC Detection	M
	- Nonylphenol (NP)	M
	- NP/OP/NPEO (SUM)	M
	- Disperse Dyes And Dyestuffs	M
	- Pentachlorophenol (PCP)	M
	- Trichlorophenol (TriCP) and Tetrachlorophenol (TeCP)	M
	- o-Phenylphenol (o-PP)	M
	- Chlorinated Organic Carriers (COC)	M
	- Short Chained Chlorinated Paraffins (C10-C13) (SUM)	M
	- Volatile Organic Solvent (VOC)	M
	- Benzo(a)Pyrene (BaP)	M
	- Polycyclic Aromatic Hydrocarbons (PAHs)	M
	- Dimethyl Fumarate (DMF)	M
	- Flame Retardant	M

Remark : M = Meet buyer's requirement

Authorized By:
On Behalf Of Intertek Testing Services
Taiwan Limited



K. Y. Liang
Director

This report shall not be reproduced
except in full, without the written
approval of the laboratory.



Number: TWNC00138791

Test Conducted

1. Detection Of Amines In Dyestuff

By Gas Chromatography-Mass Selective Detector (GC-MSD) analysis.

- (I) Test Method : Textile Method (§64 LFGB BVL B82.02-2)
Leather Method (§64 LFGB BVL B82.02-3)
Polyester Method (§64 LFGB BVL B82.02-4)

<u>Forbidden Amine</u>	<u>CAS No.</u>	<u>Result</u> <u>Non-</u> <u>Polyester</u> <u>Submitted Sample</u>
1. 4-Aminobiphenyl	92-67-1	N
2. Benzidine	92-87-5	N
3. 4-Chloro-O-Toluidine	95-69-2	N
4. 2-Naphthylamine	91-59-8	N
5. o-Aminoazotoluene	97-56-3	N
6. 2-Amino-4-Nitrotoluene	99-55-8	N
7. p-Chloroaniline	106-47-8	N
8. 2,4-Diaminoanisole	615-05-4	N
9. 4,4'-Diaminodiphenylmethane	101-77-9	N
10. 3,3'-Dichlorobenzidine	91-94-1	N
11. 3,3'-Dimethoxybenzidine	119-90-4	N
12. 3,3'-Dimethylbenzidine	119-93-7	N
13. 3,3'-Dimethyl-4,4'diaminodiphenylmethane	838-88-0	N
14. p-Cresidine	120-71-8	N
15. 4,4'-Methylene-Bis(2-Chloroaniline)	101-14-4	N
16. 4,4'-Oxydianiline	101-80-4	N
17. 4,4'-Thiodianiline	139-65-1	N
18. o-Toluidine	95-53-4	N
19. 2,4-Toluylenediamine	95-80-7	N
20. 2,4,5-Trimethylaniline	137-17-7	N
21. 2-Methoxyaniline	90-04-0	N
22. 2,4-Dimethylaniline	95-68-1	N
23. 2,6-Dimethylaniline	87-62-7	N

- (II) Test Method : p-Aminoazobenzene (§64 LFGB BVL B82.02-9)

<u>Forbidden Amine</u>	<u>CAS No.</u>	<u>Result</u> <u>Non-</u> <u>Polyester</u> <u>Submitted Sample</u>
4-Aminoazobenzene	60-09-3	N

Limit : 20 ppm

Remarks : N = Not detected
Detection limit = 5 ppm
ppm = Parts per million = mg/kg



Number: TWNC00138791

Test Conducted

2. Formaldehyde Content

As per DIN EN ISO 14184-1: 1998 (for non-leather material except wood) and EN 717-3: 1996 (for wood material), by UV-Visible Spectrophotometer analysis.

<u>Tested Sample</u>	<u>Result (ppm)</u>	<u>adidas TLV (ppm)</u>
Submitted Sample	1	75 (For Adults)

Remark : ppm = Parts per million = mg/kg

3. Heavy Metal Analysis

<u>Element</u>	<u>Pre-Treatment</u>	<u>Test Method</u>	<u>Result (ppm)</u>	<u>adidas TLV (ppm)</u>
			<u>Submitted Sample</u>	<u>(For Adults)</u>
Sol. Antimony (Sb)	DIN EN ISO 105-E04	DIN EN ISO 11885	<1	10.0
Sol. Lead (Pb)	DIN EN ISO 105-E04	DIN EN ISO 11885	<0.3	1.0
Sol. Cadmium (Cd)	DIN EN ISO 105-E04	DIN EN ISO 11885	<0.03	0.1
Sol. Mercury (Hg)	DIN EN ISO 105-E04	DIN EN 1483	<0.01	0.02
Sol. Chromium (Cr)	DIN EN ISO 105-E04	DIN EN ISO 11885	<0.5	2.0

Remarks : ppm = Parts per million = mg/kg
Sol. = Soluble
< = Less than

4. Total Cadmium (Cd) Content

As per EN 1122: 2002 and DIN EN ISO 11885: 2008.

<u>Tested Sample</u>	<u>Result (ppm)</u>	<u>adidas TLV (ppm)</u>
Submitted Sample	ND	40

Remarks : ppm = Parts per million = mg/kg
ND = Not detected
Detection Limit = 2 ppm



Number: TWNC00138791

Test Conducted

5. Total Lead (Pb) Content

As per DIN EN ISO 11885: 2008, microwave digestion with H2O2/ HNO3 was used and determined by Inductively Coupled Plasma-Optical Emission Spectrometer (ICP-OES) analysis.

<u>Tested Sample</u>	<u>Result (ppm)</u>	<u>adidas TLV (ppm)</u>
Submitted Sample	ND	40

Remarks : ppm = Parts per million = mg/kg
ND = Not detected
Detection limit = 2 ppm

6. Chromium (VI) (Cr(VI)) Content

Samples were conditioned at 80°C for 24 hours with 20% humidity. Analysis was conducted with reference to EN ISO 17075: 2007 and the hexavalent chromium content was determined by UV-Vis Spectrophotometer.

<u>Tested Sample</u>	<u>Result (ppm)</u>	<u>adidas TLV (ppm)</u>
Submitted Sample	ND(<3)	ND(<3)

Remarks: ppm = Parts per million = mg/kg
ND = Not detected
< = Less than

7. Organotin Compounds Content

Pretreated with methanolic buffer with carbamate and with reference to ISO 17353: 2004, determined by Gas Chromatography-Mass Selective Detector (GC-MSD) analysis.

<u>Compounds</u>	<u>Result (ppm)</u>	<u>adidas TLV (ppm)</u>
	<u>Submitted Sample</u>	
Monobutyltin (MBT)	ND	1
Dibutyltin (DBT)	ND	1
Tributyltin (TBT)	ND	ND
Triphenyltin (TPhT)	ND	1(For Adults)

Remarks : ppm = Parts per million = mg/kg
Detection limit = 0.05 ppm
ND = Not detected



Number: TWNC00138791

Test Conducted

8. Phthalate Content

By soxhlet extraction with acetone/hexane and determined by Gas Chromatography-Mass Selective Detector (GC-MSD).

<u>Compound</u>	<u>Result (ppm)</u> <u>Submitted Sample</u>
Di-(Iso-Nonyl) Phthalate (DINP)	ND
Di-(N-Octyl) Phthalate (DNOP)	ND
Diethyl Hexyl Phthalate (DEHP)	ND
Di-(Iso-Decyl) Phthalate (DIDP)	ND
Benzyl Butyl Phthalate (BBP)	ND
Dibutyl Phthalate (DBP)	ND
Sum Of Six Phthalates	ND

adidas TLV (Total) : 500 ppm

Remarks: ppm = Parts per million = mg/kg

ND = Not detected

Detection Limit = DBP : 10 ppm
 DEHP : 10 ppm
 DINP : 100 ppm
 BBP : 10 ppm
 DNOP : 10 ppm
 DIDP : 100 ppm

9. Detection Of Polyvinyl Chloride (PVC)

By Beilstein's test and Fourier Transform Infrared Spectroscopy (FTIR) analysis.

<u>Tested Sample</u>	<u>Result</u>	<u>adidas TLV</u>
Submitted Sample	No PVC Was Detected	ND

Remark : ND = Not detected

Test Conducted

10. Nonylphenol (NP), Octylphenol (OP) And Nonylphenol Ethoxylates (NPEO) Content

By solvent extraction with acetone and followed by High Performance Liquid Chromatography-Mass Selective-Mass Spectrometry (HPLC-MS-MS) and High Performance Liquid Chromatography-Diode Array Detector (HPLC-DAD) analysis.

<u>Compound</u>	<u>Result (ppm)</u> <u>Submitted Sample</u>	<u>adidas TLV (ppm)</u>
NP	ND	100
OP	ND	--
NPEO	ND	--
Total	ND	1000

Remarks : ppm = Parts per million = mg/kg
 ND = Not detected
 Detection limit = 10 ppm

11. Disperse Dyes And Dyestuffs

As per DIN 54231: 2005, by High Performance Liquid Chromatography-Mass Selective-Mass Spectrometry (HPLC-MS-MS) and High Performance Liquid Chromatography-Diode Array Detector (HPLC-DAD) analysis.

<u>Compound</u>	<u>Result (ppm)</u> <u>Submitted Sample</u>
Disperse Blue 1	ND
Disperse Blue 35	ND
Disperse Blue 106	ND
Disperse Blue 124	ND
Disperse Yellow 3	ND
Disperse Orange 3	ND
Disperse Orange 37/59/76	ND
Disperse Red 1	ND
Disperse Yellow 23	ND
Disperse Orange 149	ND

adidas TLV : 50 ppm

Remarks : ppm = Parts per million = mg/kg
 ND = Not detected
 Detection limit = 20 ppm



Number: TWNC00138791

Test Conducted

12. Pentachlorophenol (PCP) Content

By KOH extraction and by Gas Chromatography-Mass Selective Detector (GC-MSD) analysis.

<u>Tested Sample</u>	<u>Result (ppm)</u>	<u>adidas TLV (ppm)</u>
Submitted Sample	<0.05	0.5(For Adults)

Remarks : ppm = Parts per million = mg/kg
< = Less than

13. Trichlorophenol (TriCP) and Tetrachlorophenol (TeCP) content

By KOH extraction and by Gas Chromatography-Mass Selective Detector (GC-MSD) analysis.

<u>Compound</u>	<u>Result (ppm)</u> <u>Submitted Sample</u>	<u>adidas TLV (ppm)</u>
TriCP	<0.05	--
TeCP	<0.05	--
Sum of TriCP and TeCP	<0.05	0.5(For Adults)

Remarks : ppm = Parts per million = mg/kg
< = Less than

14. Orthophenylphenol (o-PP) Content

By KOH extraction and Gas Chromatography-Mass Selective Detector (GC-MSD) analysis.

<u>Tested Sample</u>	<u>Result (ppm)</u>	<u>adidas TLV (ppm)</u>
Submitted Sample	<0.5	100(For Adults)

Remarks : ppm = Parts per million = mg/kg
< = Less than



Number: TWNC00138791

Test Conducted

15. Chloroorganic Carriers (COC)

With reference to draft DIN 54232, by solvent extraction and Gas Chromatography-Mass Selective Detector (GC-MSD) analysis.

Compound

- Dichlorobenzenes
- Trichlorobenzenes
- Tetrachlorobenzenes
- Pentachlorobenzenes
- Hexachlorobenzenes
- Chlorotoluenes
- Dichlorotoluenes
- Trichlorotoluenes
- Tetrachlorotoluenes
- Pentachlorotoluenes

<u>Tested Sample</u>	<u>Result (ppm)</u>	<u>adidas TLV (Total) (ppm)</u>
Submitted Sample	All Not Detected	1.0

Remark : ppm = Parts per million = mg/kg

16. Short Chained Chloroparaffines (C10 - C13)

By extraction with hexane and determined by Gas Chromatography-Mass Selective Detector (GC-MSD) and Gas Chromatography-Electron Capture Detector (GC-ECD) analysis.

<u>Tested Sample</u>	<u>Result (ppm)</u>	<u>adidas TLV (ppm)</u>
Submitted Sample	All Not Detected	1000

Remark : ppm = Parts per million = mg/kg



Number: TWNC00138791

Test Conducted

17. Restricted Chemicals For Cement Systems

By headspace Gas Chromatography-Mass Selective Detector (GC-MSD) analysis.

<u>Compound</u>	<u>Result (ppm)</u> <u>Submitted Sample</u>	<u>adidas TLV (ppm)</u>
Benzene	ND	5
Phenol	ND	10
Tetrachloroethane	ND	1000
Toluene	ND	10000
Xylene	ND	10000
Trichloroethylene	ND	10000
Tetrachloroethylene	ND	10000
Dichloromethane	ND	10000
Methylphenol	ND	1000
Dimethyl Formamide (DMFA)	ND	1000

Remarks : ppm = Parts per million = mg/kg

Detection limit = Benzene : 1 ppm
Phenol : 1 ppm
Tetrachloroethane : 1 ppm
Toluene : 1 ppm
Xylene : 1 ppm
Trichloroethylene : 1 ppm
Tetrachloroethylene : 1 ppm
Dichloromethane : 1 ppm
Methylphenol : 5 ppm
Dimethyl Formamide : 5 ppm

ND = Not detected



Number: TWNC00138791

Test Conducted

18. Polycyclic Aromatic Hydrocarbons (PAHs) Including BaP Content

As per the document ZEK 01.2-08 issued by the central experience exchange office (ZEK), by solvent extraction and determined by GC-MSD.

<u>Compound</u>	<u>CAS No.</u>	<u>Result (ppm)</u> <u>Submitted Sample</u>	<u>adidas TLV</u> <u>(ppm)</u>
Naphthalene	91-20-3	ND	--
Acenaphthylene	208-96-8	ND	--
Acenaphthene	83-32-9	ND	--
Fluorene	86-73-7	ND	--
Phenanthrene	85-1-8	ND	--
Anthracene	120-12-7	ND	--
Fluoranthene	206-44-0	ND	--
Pyrene	129-00-0	ND	--
Chrysene	218-01-9	ND	--
Benzo[a]Anthracene	56-55-3	ND	--
Benzo[b]Fluoranthene	205-99-2	ND	--
Benzo[k]Fluoranthene	207-08-9	ND	--
Benzo[a]Pyrene (BaP)	50-32-8	ND	1
Dibenzo[a,h]Anthracene	53-70-3	ND	--
Indeno[1,2,3-c,d]Pyrene	193-39-5	ND	--
Benzo[g,h,i]Perylene	191-24-2	ND	--
Sum Of PAHs Including BaP		ND	10

Remarks : ppm = Parts per million = mg/kg
ND = Not detected
Detection Limit = 0.2 ppm

19. Dimethyl Fumarate (DMF) Content

By solvent extraction and determined by Gas Chromatography-Mass Selective Detector (GC-MSD) analysis.

<u>Compound</u>	<u>Result (ppm)</u> <u>Submitted sample</u>	<u>adidas TLV (ppm)</u>
Dimethyl Fumarate (CAS No.624-49-7)	ND	0.1

Remarks : ppm = Parts per million = mg/kg
ND = Not detected
Detection limit = 0.1 ppm



Number: TWNC00138791

Test Conducted

20. Flame Retardant Products

By solvent extraction and analysis by GC-MSD or HPLC-DAD.

<u>Compound</u>	<u>CAS No.</u>	<u>Result (ppm)</u>
		<u>Submitted</u>
		<u>Sample</u>
- Polybromobiphenyls (PBB)	59536-65-1	ND
- Tris-(2,3-Dibromopropyl)-Phosphate(Tris)	126-72-7	ND
- Tris-(Aziridinyl)-Phosphineoxide [Tris(1-Aziridinyl)Phosphine Oxide] (TEPA)	545-55-1	ND
- Pentabromodiphenyl Ether (PentaBDE)	32534-81-9	ND
- Octabromodiphenyl Ether (OctaBDE)	32536-52-0	ND
- Decabrominated Diphenyl Ether (DecaBDE)	1163-19-5	ND
- Hexabromocyclododecane (HBCDD)	25637-99-4	ND
- Terabromobisphenol A (TBBPA)	79-94-7	ND
- Tris(2-Chloroethyl)Phosphate (TCEP)	115-96-8	ND

Limit

Not detected (for each flame retardant listed)

Remarks: ppm = Parts per million = mg/kg
ND = Not detected
Reporting limit = 10 ppm for each flame retardant listed

End Of Report

Test Conducted

Photo

