

**Test Report**

No. 1556012.1

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BSW Handels GmbH  
 Historischer Bahnhof Karnin 12  
 D-17406 Usedom

The following sample(s) was (were) submitted and identified by the client as:

Sample ID No.	Sample Description
9658892	Glove LWHS 106-M



Client's Reference No :  
 Buyer : BSW Handels GmbH  
 Article No. : LWHS 106-M  
 Order No. :  
 Country of Origin :  
 Country of Destination :

Sample Receiving Date : 10/DEC/2009  
 Test Performing Period : 10/DEC/2009 – 13/JAN/2010  
 Test Performed : Selected test(s) as requested by applicant

**Overall Conclusion** : **PASS**

Tests Results : Please refer to the next pages

Signed for and on behalf of  
 SGS Institut Fresenius GmbH




Name	i.A. Dr. Alexander Zeller	i.A. Catherine Bouleau
Position	project manager Chemical product testing	project assistance Chemical product testing

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### Performed Test Summary:

Chemical Tests	Result
Azo Dyes	M
Formaldehyde	M
PCP / TeCP	M
Polynuclear Aromatic Hydrocarbons	M
Chromium(VI)	M

**Remarks:** M = Meets Client's requirement  
 F = Below Client's requirement  
 \* = No specified requirement

**Note:** Conclusions on pass/fail are based on the test result from the actual sampling of the received sample(s).

Test was conducted on composite of random parts of the item as per client's request and the test result is the overall result.

The composite sampling method is based on the client's special request and is a modification from the testing standard.

For 2-composite mix with results exceeding one half of the relevant requirements or 3-composite mix with results exceeding one third of the relevant requirements, the composite sample may have the possibility of one or more components that can lead to a failure result, it is recommended to test on individual basis.

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### Component List

Component No	Sample ID	Description	Color(s)	Material
1	9675097	Main material	Yellow	Leather
2	9675098	Velcro	Black	Polyester
3	9675099	Elastic Band	Black	unknown

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### Test Result:

#### Azo Dyes

Test Method:

Textiles – LFGB § 64 BVL B 82.02-2 (Natural fibres) or B 82.02-4:2004 (Polyester); with the use of GC-MS/HPLC-DAD

Leather – LFGB § 64 BVL B 82.02.3:2004; with the use of GC-MS/HPLC-DAD

Determination of 4-Aminoazobenzene (CAS No.: 60-09-3) –LFGB § 64 BVL B 82.02-9:2008; with the use of GC-MS/HPLC-DAD

<u>Amines</u>	<u>Component(s)</u>	<u>Result</u>	<u>Result</u>
		1	2+3
	Method	82.02-3	82.02-4 /-9
	<u>CAS-No.</u>		
4-Aminodiphenyl	92-67-1	n.d.	n.d.
Benzidine	92-87-5	n.d.	n.d.
4-Chlor-o-toluidine	95-69-2	n.d.	n.d.
2-Naphthylamine	91-59-8	n.d.	n.d.
o-Aminoazotoluene <sup>1</sup>	97-56-3	n.d.	n.d.
2-Amino-4-nitrotoluene <sup>1</sup>	99-55-8	n.d.	n.d.
4-Chloroaniline	106-47-8	n.d.	n.d.
2,4-Diaminoanisole	615-05-4	n.d.	n.d.
4,4'-Diaminodiphenylmethane	101-77-9	n.d.	n.d.
3,3'-Dichlorobenzidine	91-94-1	n.d.	n.d.
3,3'-Dimethoxybenzidine	119-90-4	n.d.	n.d.
3,3'-Dimethylbenzidine	119-93-7	n.d.	n.d.
3,3'-Dimethyl-4,4'-diaminodiphenylmethane	838-88-0	n.d.	n.d.
p-Cresidine	120-71-8	n.d.	n.d.
4,4'-Methylene-bis-(2-chloraniline)	101-14-4	n.d.	n.d.
4,4'-Oxydianiline	101-80-4	n.d.	n.d.
4,4'-Thiodianiline	139-65-1	n.d.	n.d.
o-Toluidine <sup>1</sup>	95-53-4	n.d.	n.d.
2,4-Toluylenediamine <sup>1</sup>	95-80-7	n.d.	n.d.
2,4,5-Trimethylaniline	137-17-7	n.d.	n.d.
4-Aminoazobenzene	60-09-3	n.d.	n.d.
o-Anisidine	90-04-0	n.d.	n.d.
2,4-Xylidine	95-68-1	n.d.	n.d.
2,6-Xylidine	87-62-7	n.d.	n.d.
<b>Conclusion</b>		<b>PASS</b>	<b>PASS</b>

Note:

n.d. = not detected

Detection Limit = 10 mg/kg

<sup>1</sup> = During analysis, o-Aminoazotoluene and 2-Amino-4-nitrotoluene decompose into o-Toluidine and 2,4-Toluylenediamine, respectively. Absence of o-Toluidine and 2,4-Toluylenediamine indicates absence of o-Aminoazotoluene and 5-Nitro-o-toluidine.

\* = Exceeds the limit

# = Exceeds the relevant requirement of 2 / 3-composite mix

**Requirements:** < 30 mg/kg (Limit for aromatic amines derived from azo dyes according to the German Ordinance on Consumer Products)

Comment:

Within the scope of the mentioned test, no evidence was found of the presence in the submitted samples specified above of any azo dye or pigment that is a forbidden dye within the meaning of the ordinance of commodities.

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### Formaldehyde

Test Method: Textile - LFGB § 64 BVL B 82.02.1. Analysis was performed with UV/VIS Spectrometry

<u>Component(s)</u>	<u>Result</u>
Free Formaldehyde	1 n.d.
<b>Conclusion</b>	<b>PASS</b>

Note: n.d. = not detected  
 Detection Limit = 20 mg/kg  
 \* = Exceeds the limit  
 # = Exceeds the relevant requirement of 2 / 3-composite mix  
**Requirement:** 1500 mg/kg (Limit according to the German Ordinance on Consumer Products for labeling)

### Chlorinated Phenols (PCP & TeCP)

Test Method: In-house method - Analysis was conducted by GC-ECD after extraction with methanol and derivatisation

<u>Component(s)</u>	<u>Result</u>
PCP	1 n.d.
2,3,5,6-TeCP	n.d.
2,3,4,6-TeCP	n.d.
2,3,4,5-TeCP	n.d.
<b>Conclusion</b>	<b>PASS</b>

Note: n.d. = not detected  
 Detection Limit (PCP / TeCP) = 0.1 mg/kg  
 \* = Exceeds the limit  
 # = Exceeds the relevant requirement of 2 / 3-composite mix  
**Requirement:** PCP < 5 mg/kg (Limit according to the German Chemicals Prohibition Ordinance)

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### Polyaromatic Hydrocarbons

Test Method: Acc. to ZEK 01.2-08 - Analysis was conducted by GC-MS.

<u>Component(s)</u>	<u>CAS-No.</u>	<u>Result</u>
PAHs		2+3
Naphthalene	91-20-3	1.6 mg/kg
Acenaphthylene	208-96-8	n.d.
Acenaphthene	83-32-9	n.d.
Fluorene	86-73-7	n.d.
Phenanthrene	85-01-8	0.4 mg/kg
Anthracene	120-12-7	n.d.
Fluoranthene	206-44-0	n.d.
Pyrene	129-00-0	0.5 mg/kg
Benzo(a)anthracene	56-55-3	n.d.
Chrysene	218-01-9	n.d.
Benzo(b)fluoranthene	205-99-2	n.d.
Benzo(k)fluoranthene	207-08-9	n.d.
Benzo(a)pyrene	50-32-8	n.d.
Indeno(1,2,3-cd)pyrene	193-39-5	n.d.
Dibenzo(a,h)anthracene	53-70-3	n.d.
Benzo(g,h,i)perylene	191-24-2	n.d.
Total PAHs		<b>2.5 mg/kg</b>
<b>Conclusion</b>		<b>PASS</b>

Note: n.d. = not detected  
 Detection Limit = 0.2 mg/kg  
 \* = Exceeds the limit

**Requirement:** Limits acc. to ZEK 01.2-08 (for GS mark certification):

Category 1: Benzo[a]pyrene <0.2 mg/kg, Total PAHs (EPA): <0.2 mg/kg

Materials which are meant to put in the mouth as well as toys for children <36 months

Category 2: Benzo[a]pyrene <1 mg/kg, Total PAHs (EPA): 10 mg/kg

Materials with foreseeable skin contact >30 s (prolonged skin contact) and toys not covered by category 1

Category 3: Benzo[a]pyrene 20 mg/kg, Total PAHs (EPA): 200 mg/kg

Materials with foreseeable skin contact <30 s (short time skin contact) or without skin contact

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### Chromium VI in Leather

Test Method: With reference to ISO 17075:2007 / CEN 14495:2003 / EN420:2003. Analysis was conducted by UV/VIS Spectrometry.

<u>Component(s)</u>	<u>Result</u>
	1
Chromium (VI)	<b>1.5 mg/kg</b>
<b>Conclusion</b>	<b>PASS</b>

Note: n.d. = not detected  
 Detection Limit = 1 mg/kg  
 \* = Exceeds the limit  
 # = Exceeds the relevant requirement of 2 / 3-composite mix  
**Requirement:** < 3 mg/kg (Limit according to EN420:2003 for working gloves)

\*\*\* End of Report \*\*\*