



# **ECP**

## **Module 1: RSL**

### **Restricted Substance List**

**VERSION 1.0  
MAY 2011**

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## INTRODUCTION

Marks & Spencer launched its first Restricted Substances List (RSL) in the late 1990's – the first major UK retailer to do so. The current edition of the RSL is a mandatory requirement of our supplier Terms & Conditions. The list is a combination of EU law, Marks & Spencer requirements, and industry best practice.

Details are provided of the chemical, its risk, acceptable levels of presence in the finished product, and preferred test method for identification and quantity present.

A suitably qualified member of each supplier's management team should take responsibility to ensure all chemicals applied to products contracted for M&S conform to this list, and the stated performance standards.

Suppliers should ensure that their own chemical, dyestuff, print and laundry chemical suppliers are clear about our requirements, and can supply proof of compliance in relation to deliveries.

To ensure ongoing compliance with this RSL, Marks & Spencer carries out random unannounced Due Diligence testing of product in our Stores. If any product is found to be non-compliant with the RSL, there is a fine chargeable to the supplier (see T&Cs) and we reserve the right to RTM the product at the supplier's cost. In cases where non compliance leads to a Product Recall, associated responsibilities or charges will be applied to the supplier.

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## RESTRICTED SUBSTANCES LIST

Chemical	What M&S products are most likely to be affected?	What is the origin of the controlled chemical?	Why is it banned or restricted?	Retail legal status	Supply base legal status	Maximum limit on finished product	'Practical' Limit of Detection	Test method (preferred method)
<p><b>REACH</b> - the use of products or preparations containing SVHCs (Substances of Very High Concern) as listed on the current edition of REACH is not permitted by Marks &amp; Spencer where viable alternatives are available. M&amp;S must be notified of the presence of any SVHCs in product at the time of contract, these must be less than 0.1% W/W. See Module 2 – REACH for further details.</p>								
<p><b>Banned Azo dyes</b> <i>No deliberate use</i></p>	All fibre types	Banned amines listed in appendix 1 Examples of dyes that can form such amines listed in appendix 2	Dyes can split to form carcinogenic amines	Sale of products containing > 30 ppm is illegal Regulation No 1907/2006 of the European Parliament and of the Council	Use of products containing > 30 ppm is illegal	<b>30ppm</b>	5 ppm	Textiles: C62a (refers to EN 14362 part 1 and 2) <b>Leather</b> :C62b (CEN ISO/TS 17234:2003)
<p><b>Skin Sensitising Disperse Dyes</b> <i>No deliberate use</i></p>	Polyester, Acetate, and disperse-dyed nylon	Disperse Dyes listed in appendix 3	Once sensitised to a dye, people can react violently to trace quantities	No Legal restriction	No Legal restriction	<b>50 ppm</b>	5 ppm	DIN 54231
<p><b>Alkyl phenyl ethoxylates (APEO's)</b> <i>No deliberate use</i></p>	All fibre types	In widespread use as detergents, Wetting agents, and as emulsifying agents	Endocrine disruptors (sex change chemicals) for aquatic species	Regulation 1907/2006 (EU) Annex XVII	Use of formulations containing over 0.1% of NPEO is illegal in Europe	1000 ppm total NPEO and OPEO	100 ppm	C65 Solvent Extraction LCMS
<b>APEO technical notes</b>	NPEO (nonyl phenyl ethoxylate) is the APEO that causes greatest concern. It is anticipated that legislation regarding its use will harmonise worldwide and we will then lower the standard. EU legislation is Marketing and Use Directive EC 552/2009 and regulation no 1907/2006 of the European Parliament and of the Council Annex XVII							
<p><b>Organo tin compounds</b> <i>No deliberate use</i></p>	All fibre types	Preservative for fabrics and chemical formulations. Occasionally used as stabilizers and catalysts	Tributyl tin is highly toxic, and related products have toxicity issues	Commission Decision 2009/425/EC	Use is effectively prohibited via water authority regulations	0.5 ppm TBT (in extract) 1ppm DBT and MBT (in extract)	0.05 ppm	Textiles: Solvent extraction + GC-MS (ISO 17353:2004 or in-house methods) <b>Leather</b> : SATRA TM277
<p><b>PCP – pentachlorophenol and derivatives</b> <i>No deliberate use</i></p>	Cotton, Viscose	Preservative for cotton and viscose. Main risk is on imported greige fabrics	Highly Toxic	No formulations containing over 0.1% can be placed on the market in Europe (Commission Regulation EC 552/2009)	Use is effectively prohibited via water authority regulations	<b>1ppm total PCP and TECP</b> <b>Leather 0.5ppm</b>	0.05ppm	LMBG B82.02.8 Analysed on GC-ECD <b>Leather</b> : EN TS 14494:2003

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<b>Mercury</b> <i>No deliberate use</i>	Cotton	Caustic soda that is made by the 'mercury cell process'	Highly toxic	Could be governed by biocidal substances directive	Use is effectively prohibited via water authority regulations	<b>0.02 ppm</b>	0.01 ppb	Any appropriate technique e.g. Combustion amalgamation with cold vapour detection
<b>Mothproofing: Permethrin &amp; Analogues of these</b> <i>No deliberate use</i>	Wool, (Cashmere, Angora)	Commonest chemical is permethrin - found on wool and cashmere	Nerve agent, and toxic to aquatic species	No Legal restriction	Use is effectively prohibited via water authority regulations	<b>Contamination limit 10ppm</b>	1 ppm	Solvent extraction + GCMS
<b>PFOS</b> <i>No deliberate use</i>	All fibre types	Water-repellent '8-chain' fluorocarbon finishes based on electrofluorination ( <u>old</u> generation products)	Proven health risks, and persistent in the environment	Articles should not contain more than 1 ug/m <sup>2</sup> of PFOS (Commission Regulation EC 552/2009)	Formulations containing more than 50mg/kg (0.005%) cannot be placed on the market (EC 552/2009)	<b>1 ppm</b>	1 ppm	Solvent extraction + LC-MS
<b>PFOA</b> <i>No deliberate use</i>	All fibre types	Water-repellent finishes based on telemerisation	Persistent in the environment and suspected health risks	No Legal restriction	No Legal restriction	<b>1 ppm</b>	1ppm	Solvent extraction + LC-MS
<b>PFOA notes</b>	PFOA (perfluorooctanoic acid) is produced as a by-product in the manufacture of the building blocks for fluorocarbons that are applied to textiles. Users of fluorocarbon finishes should get written confirmation from the manufacturer that traces of PFOA, and materials that can theoretically form PFOA, have been minimised.							
<b>Dye Carriers</b> <i>No deliberate use</i>	Polyester	Used to dye polyester and blends at low temperatures in machinery not capable of being pressurised	Various depending on type of carrier - generally toxic, irritants or carcinogens	No Legal restriction	Some chemical types are prohibited	1 ppm total for halogenated aromatic hydrocarbons, biphenyl or ortho phenyl phenol	1 ppm	Solvent extraction + GC-MS
<b>Chromium VI</b> <i>Consent Required</i>	Wool, (Cashmere, Angora) Leather	Chromium compounds used in 2-stage 'after-chrome' wool dyeing	Highly toxic / carcinogenic both to humans and aquatic species	No Legal restriction – new German legislation banning use in leather above limit of detection	Large scale use is effectively prohibited via water authority regulations	<b>Textiles and Leather 3ppm</b>	3 ppm EN ISO 17075:2007	EN ISO 17075:2007

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<b>Aromatic hydrocarbons (organic solvents)</b> <i>Consent Required</i>	Panel Printed or solvent-scoured fabrics	Used in some adhesives, print formulations, solvent scouring and spot cleaning	Various depending on type of solvent	Some solvents are restricted	Some solvents are banned - e.g. carcinogens	<b>Limit of detection</b> <b>1 ppm</b>	Varies according to chemical type	GCMS / Head Space for volatile solvents. Solvent extraction GCMS for semi-volatile solvents
<b>Organic solvent technical notes</b>	Where solvents are used suppliers should always work to change to water based alternatives. Where this is not possible e.g. dry pigment discharge printing there must be adequate extraction of fumes, good ventilation, and workers must be provided with appropriate Personal Protective Equipment. Solvents are permitted for scouring greige, but these must be in fully enclosed zero emission systems. No residual solvent is permitted on any finished product.							
<b>Biocidal Finishes</b> <i>Consent Required</i> <u>Not permitted in Childrenswear</u>	All fibre types Leather	Deliberate application on fabrics	Toxic Can cause severe skin irritation e.g. DMFu (see below)	Some chemical types are restricted e.g. DMFu is <u>banned</u> in EU and UK	Some chemical types are restricted by water authorities – all biocides have to be registered under the biocides directive – 98/8/EC	<b>Limit of detection unless agreed in writing by technologist</b>	Varies according to type. Report result as ppm	Analytical – Solvent extraction (test lab own method) followed by GC-MS
<b>Biocidal finish notes</b>	Deliberately applied biocidal finishes to impart customer benefit must be permanent, non-leaching, and work only on the fabric and not on customers' skin, and must not be implicated in antibiotic resistance. Biocidal finishes should not be confused with odour absorbers such as cyclodextrins.							
<b>DMFu – dimethyl fumarate</b> <u>Not permitted for use in any M&amp;S products</u>	Leather for furniture, footwear, or accessories etc.	Silica gel sachets which also contain banned DMFu to stop mould growth in transit	Causes severe irritation when in human skin contact	EU Decision banning its use 2009/251/EC	EU Decision banning its use 2009/251/EC	0.1 mg/kg in products	0.1 mg/kg	Solvent extraction followed by GC-MS
<b>Flame retardants</b> <i>Consent Required</i> <u>Not permitted in Childrenswear</u>	Cotton	Deliberate application on fabrics	Depends on exact chemistry - Toxic, not biodegradable and suspected health risks	Legal restrictions for penta and octa BDE of 0.1% (EC Regulation 552/2009)	Legal restrictions for penta and octa BDE of 0.1% (EC Regulation 552/2009)	<b>5ppm for penta-, hexa- and octa - brominated biphenyl ethers, PCB's and PCT's</b>	5 ppm	Solvent extraction + GC-MS or LC-MS
<b>Flame retardant notes</b>	Flame retardant finishes should only be applied where there is a legislative need with written consent from M&S. Penta, Hexa and Octa –brominated types must not be deliberately applied and must not be present above 5 ppm. Suppliers using deca brominated types should follow VECAP best practice - <a href="http://www.bsef.com/product_stew/vecap/">http://www.bsef.com/product_stew/vecap/</a>							

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<b>PVC</b> <i>Consent Required</i> <u>Not permitted in Children's clothing</u>	Mock leather and plastisol prints. Sequins	Deliberate use	Not biodegradable, releases dioxins on combustion	PVC containing DBP, DEHP, and BBP banned in REACH directive above set limits	Strict controls on disposal	<b>Qualitative test</b>	Qualitative	C64 - qualitative (Belstein test) then/or FTIR for confirmation
<b>Phthalates</b> <u>Not permitted in Children's clothing</u>	PVC mock leather and plastisol prints	Used to soften rigid PVC	Suspected sex change chemicals /suspected carcinogen	6 phthalates now illegal in certain articles in Europe Directive 2005/84/EC	PVC containing DBP, DEHP, and BBP banned in REACH directive above set limits	<b>1000 ppm total for the 6 legislated phthalates</b>	100 ppm	C61 Solvent extraction + GCMS
<b>PVC and Phthalate notes</b>	It is essential that all suppliers who are using PVC based products familiarise themselves with, and comply with the current M&S PVC policy. DEHP, DBP and BBP are banned above 1000ppm in <u>all</u> childcare articles and toys – and are now listed in REACH as 'Substances of Very High Concern'. DINP, DIDP and DOP are banned above 1000ppm in articles that are intended for children under 36 months and can be mouthed. Another phthalate has been notified on the REACH SVHC list – Diisobutyl phthalate (cas 84-69-5) is an SVHC but not on toy legislation, but should be avoided							
<b>Formaldehyde</b> <u>Not permitted in Children's underwear or any baby wear</u>	Resinated Cotton and Viscose	Most commonly found in resinated products (and in lower levels in fixing agents for cotton and nylon)	Known irritant to skin and mucous membranes Reclassified as carcinogen by WHO	No Legal restriction	Controls on workplace airborne quantities	<b>Free 75ppm Released 300ppm Baby wear 20ppm</b>	Less than 20 ppm	<b>Textiles:</b> C18B and C18C <b>Leather:</b> EN ISO TS 17226 HPLC
<b>Pesticides / Insecticides</b>	Wool (and lower levels on cotton)	Used to protect sheep and cotton crops from parasite infestation.	Toxic	Selected chemicals are banned under POP convention	Strict controls on effluent	<b>Total 0.5ppm for wool Total 0.05ppm for cotton</b>	0.05 ppm	Analytical – HPLC or GCMS
<b>Chlorine based bleach</b>	Cotton	Deliberate application	Toxic in high concentrations. Concerns over 'AOX' formation in effluent	No Legal restriction	No Legal restriction. May form AOX in effluent and these are controlled	<b>Use chlorine-free bleach wherever practicable.</b>	N/A	-
<b>Metals in Textiles Technical Notes</b>	The figures contained in this document refer to M+S acceptable limits of heavy metals on finished textiles. There is specific legislation relating to specific metals in all end uses (e.g. Cadmium Directive) and also legislation for metals in toys (EN71). Please note that acceptable limits in EN71 are significantly higher than for M+S textiles - the standards in this C99 document apply to M+S textile based toys. Metal is used as an integral part of some dye chromophores to impart technical performance. Where metal-free dyes will meet M+S performance requirements these should be used as the preferred option. In addition to these textile standards, M+S have specific policies and standards relating to metal in componentry (see Nickel Policy and Childrenswear Safety Manual)							
<b>Cadmium</b>	Various	Pigments, Dyes, Fibres, Alloys	Toxic	EN 71 + Cadmium directive	Strict controls on effluent	<b>0.1 ppm</b>	<b>0.03 ppm</b>	<b>Artificial Sweat extraction ICP</b>
<b>Nickel</b>	Various	Green and turquoise dyes	Allergenic	EN 71 + see nickel policy there is a nickel directive	Strict controls on effluent	<b>4 ppm</b>	1 ppm	<b>Artificial Sweat extraction ICP</b>

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<b>Antimony</b>	Various	Fibres, flame retardants	Toxic	EN 71	Strict controls on effluent	<b>30 ppm</b>	30 ppm	<b>Artificial Sweat extraction ICP</b>
<b>Lead</b>	Various	Pigments / water pipes	Toxic	EN 71	Strict controls on effluent	<b>1 ppm</b>	0.3 ppm	<b>Artificial Sweat extraction ICP</b>
<b>Copper</b>	Various	-	Toxic	None	Strict controls on effluent	<b>Adults: 50ppm Infants: 25ppm</b>	0.3 ppm	-
<b>Chromium</b>	Various	-	Toxic	-	Strict controls on effluent	<b>Adults: 2 ppm Infants: 1 ppm</b>	0.3 ppm	-
<b>Other Heavy Metals</b>	Various	Various	Toxic	EN 71	Strict controls on effluent	<b>1ppm</b>	0.3 ppm	<b>Artificial Sweat extraction ICP</b>
<b>Potassium Permanganate</b>	Denim	Used as a localised bleaching agent - usually as a spray	Toxic for workers	No Legal restriction	No Legal restriction	<b>Use permanganate -free process wherever practicable. If permanganate is used – ensure PPE is worn &amp; finished garments are free from residues.</b>	-	-
<b>Some Sequestrants e.g. EDTA</b>	All products	Used as an additive for softening water	Can upset the balance of water courses	No Legal restriction	Some restriction on some products e.g. EDTA	<b>No limit specified</b>	-	-

*There are many thousands of chemicals that are not mentioned in the above section that are known to be harmful to humans or the environment. They are not mentioned because there is little chance they would ever be used on the type of products we sell. However, we do not expect any harmful chemicals to be present and draw your attention to lists in Appendix 10. Marks and Spencer will continue to promote the minimisation of harmful chemicals in our products and responsible use of safer technology.*



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## DYE AND CHEMICAL SELECTION – AVOIDANCE OF NON-COMPLIANCE

With the exception of some contaminants that are brought in on raw materials most chemical safety and environmental issues are caused by the dyes and chemicals that are deliberately used for the manufacture of products.

Dyehouses, printers, finishers, laundries and tanneries must take care to select products that do not harm textile workers, the environment or Marks & Spencer customers.

Earlier versions of our chemical policy specified ETAD (Ecological and Toxicological Association of Dyes and Organic Pigments Manufacturers [www.etad.com](http://www.etad.com)) as recommended to ensure compliance with our policy. We no longer require membership of this organisation to supply dyes, chemicals, or print inks.

*It is mandatory that any supplier of dye, chemical, or print chemical fully complies with the Marks & Spencer RSL, and any related REACH requirements. Membership or listing on a third party organisation will not be taken as approval to use the supplier's product*

**Compliant dyes and chemicals** – Products selected from the following lists will not give rise to non-compliance if applied appropriately.

- **Dystar** - owned by Kiri Chemicals (India) from 2010 - dyes and pigment formulations in brochure format or at [www.dystar.com](http://www.dystar.com).
- **Huntsman** Advanced Materials and Effects - [www.huntsman.com](http://www.huntsman.com)
- **Clariant** dyes and chemicals at [www.clariant.com](http://www.clariant.com).
- **CHT** Chemicals at [www.cht-group.com](http://www.cht-group.com).
- **Magna** print and speciality chemicals at [www.magnacolours.com](http://www.magnacolours.com)
- **BASF** chemicals at [www.basf.com](http://www.basf.com)

The following Appendices (1, 2 & 3) highlight the dyestuffs that are BANNED for use in Marks & Spencer products. These chemicals must NOT be used for Marks & Spencer production.

### Childrenswear Panel Prints

The following companies **entire** range of panel printing chemicals comply with our general requirements for chemicals and more stringent Childrenswear standards of PVC-free and Phthalate-free. It is strongly recommended that products utilising new technology from these companies are used to minimise the risk of non-conformance.

- **Magna**
  - **Print Kimya**
  - **Zydex**
  - **CHT**
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## APPENDIX 1

### BANNED Aromatic Amines Specified in EC 2002/61

<b>TEST METHOD EN 14362 (PARTS 1 &amp; 2) USED TO DETECT BANNED AMINES (1-21 ON THIS LIST).</b>				
<b>If aniline, or 1,4 – phenylenediamine is detected, see amine number 22 (below) for special test method</b>				
	<b>CAS Number</b>	<b>Index Number</b>	<b>EC Number</b>	<b>Substances</b>
<b>1</b>	92-67-1	612-072-00-6	202-177-1	<b>4-aminobiphenyl</b>
<b>2</b>	92-87-5	612-042-00-2	202-199-1	<b>Benzidine</b>
<b>3</b>	95-69-2	612-196-00-0	202-441-6	<b>4-chloro-o-toluidine</b>
<b>4</b>	91-59-8	612-022-00-3	202-080-4	<b>2-naphthylamine</b>
<b>5</b>	97-56-3	611-006-00-3	202-591-2	<b>o-aminoazotoluene</b>
<b>6</b>	99-55-8	612-210-00-5	202-765-8	<b>5-nitro-o-toluidine</b>
<b>7</b>	106-47-8	612-137-00-9	203-401-0	<b>4-chloroaniline</b>
<b>8</b>	615-05-4	612-200-00-0	210-406-1	<b>2,4-diaminoanisole</b>
<b>9</b>	101-77-9	612-051-00-1	202-974-4	<b>4,4'-diaminodiphenylmethane</b>
<b>10</b>	91-94-1	612-068-00-4	202-109-0	<b>3,3'-dichlorobenzidine</b>
<b>11</b>	119-90-4	612-036-00-X	204-355-4	<b>3,3'-dimethoxybenzidine</b>
<b>12</b>	119-93-7	612-041-00-7	204-358-0	<b>3,3'-dimethylbenzidine</b>
<b>13</b>	838-88-0	612-085-00-7	212-658-8	<b>4,4'-methylenedi-o-toluidine</b>
<b>14</b>	120-71-8	612-209-00-X	204-419-1	<b>p-cresidine</b>
<b>15</b>	101-14-4	612-078-00-9	202-918-9	<b>4,4'-methylene-bis-(2-chloro-aniline)</b>
<b>16</b>	101-80-4	612-199-00-7	202-977-0	<b>4,4'-oxydianiline</b>
<b>17</b>	139-65-1	612-198-00-1	205-370-9	<b>4,4'-thiodianiline</b>
<b>18</b>	95-53-4	612-091-00-X	202-429-0	<b>o-toluidine 2-aminotoluene</b>
<b>19</b>	95-80-7	612-099-00-3	202-453-1	<b>4-methyl-m-phenylenediamine</b>
<b>20</b>	137-17-7	612-197-00-6	205-282-0	<b>2,4,5-trimethylaniline</b>
<b>21</b>	90-04-0	612-035-00-4	201-963-1	<b>o-anisidine 2-methox aniline</b>
<b>22</b>	60-09-3	611-008-00-4	200-453-6	<b>p-aminoazobenzene</b> German Test No. 64 LFGB B82.02-9 September 2006 may be used to detect presence of Amine 22. If 4-amino azobenzene (para amino benzene) is detected: <30PPM = PASS, >30PPM = FAIL
<b>23</b>	95-68-1	-	202-440-0	<b>2,4-xylidine</b>
<b>24</b>	87-62-1	612-161-00-X	201-758-7	<b>2,6-xylidine</b>

## APPENDIX 2

### *Examples of Dyes which Potentially Cleave to form BANNED Aromatic Amines (listed in Appendix 1) under reducing conditions*

CI Acid Orange 45	22195
CI Acid Red 24	16140
CI Acid Red 85	22245
CI Acid Red 114	23635
CI Acid Red 115	27200
CI Acid Red 128	24125
CI Acid Red 148	26665
CI Acid Red 158	20530
CI Acid Red 167	
CI Acid Red 265	18129
CI Acid Black 29	
CI Acid Black 209	
Azoic Diazo Component 12	37105
Basic Brown 4 (= Solvent Brown 12)	21010
Developer 14 (=Oxidation Base 20)	76035
Direct Yellow 1	22250
Direct Yellow 24	22010
Direct Yellow 48	23660
Direct Orange 1	22370
Direct Orange 6	23375
Direct Orange 7	23380
Direct Orange 8	22130
Direct Orange 10	23370
Direct Orange 108	29173
Direct Red 1	22310
Direct Red 2	23500
Direct Red 7	24100
Direct Red 10	22145
Direct Red 13	22155
Direct Red 17	22150

Direct Red 21	23560
Direct Red 22	23565
Direct Red 28	22120
Direct Red 37	22240
Direct Red 39	23630
Direct Red 44	22500
Direct Red 46	23050
Direct Red 62	29175
Direct Red 67	23505
Direct Red 72	29200
Direct Violet 1	22570
Direct Violet 12	22550
Direct Violet 21	23520
Direct Violet 22	22480
Direct Blue 1	24410
Direct Blue 2	22590
Direct Blue 3	23705
Direct Blue 6	22610
Direct Blue 8	24140
Direct Blue 9	24155
Direct Blue 10	24340
Direct Blue 14	23850
Direct Blue 15	23790
Direct Blue 22	24280
Direct Blue 25	23790
Direct Blue 35	24145
Direct Blue 76	24411
Direct Blue 151	24175
Direct Blue 160	

Direct Blue 173	
Direct Blue 192	
Direct Blue 201	
Direct Blue 215	24115
Direct Blue 295	23820
Direct Green 1	30280
Direct Green 6	30295
Direct Green 8	30315
Direct Green 8.1	
Direct Green 85	30387
Direct Brown 1	30045
Direct Brown 1:2	30110
Direct Brown 2	22311
Direct Brown 6	30140
Direct Brown 25	36030
Direct Brown 27	31725
Direct Brown 31	35660
Direct Brown 33	35520
Direct Brown 51	31710
Direct Brown 59	22345
Direct Brown 79	30056
Direct Brown 95	30145
Direct Brown 101	31740
Direct Brown 154	30120
Direct Brown 222	30368
Direct Black 4	30245
Direct Black 29	22580
Direct Black 38	30235
Direct Black 154	

## APPENDIX 3

**BANNED Dyestuffs implicated in Contact Dermatitis by Consumers, which include:**

CI	Disperse Blue	1
CI	Disperse Blue	3
CI	Disperse Blue	7
CI	Disperse Blue	26
CI	Disperse Blue	35
CI	Disperse Blue	102
CI	Disperse Blue	106
CI	Disperse Blue	124
CI	Disperse Yellow	1
CI	Disperse Yellow	3
CI	Disperse Yellow	9
CI	Disperse Yellow	23
CI	Disperse Yellow	39
CI	Disperse Yellow	49
CI	Disperse Orange	1
CI	Disperse Orange	3
CI	Disperse Orange	37
CI	Disperse Orange	59
CI	Disperse Orange	76
CI	Disperse Red	1
CI	Disperse Red	11
CI	Disperse Red	17
CI	Disperse Brown	1

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## APPENDIX 4

### Chemical testing notes

#### General Remarks

Chemicals can be detected in amounts that fall into 3 categories:

- *Background* levels – amounts found in nature
- *Contamination* – low levels present
- *Deliberate application* – higher levels present through deliberate application

There are two broad types of test:

- Qualitative – tells you something is definitely there in high, low or medium amounts.
- Quantitative – tells you exactly what is there.

For any test there will be a 'limit of detection' below which a chemical cannot be detected. (Where methods use solvent extraction the limits of detection and permissible levels may refer to the extract and not the test fabric/component – see chemicals on product table).

In some instances the M&S 'Acceptable limit' refers to the acceptable limit in the solvent extract and not the total amount on the fabric under test.

#### Testing Requirements

All tests must be conducted in UKAS accredited laboratories or those that operate a mutual recognition scheme (e.g. HOKLAS, COFRAC).

Certain laboratories will carry out screening tests for families of similar chemicals before doing specific targeted quantitative tests. A negative result from an accredited laboratory is normally sufficient.

Chemical tests from non-accredited laboratories may need to be re-tested and will at best be submissable as qualitative evidence.

#### Approved Global Test House Organisations For RSL And REACH Chemical Testing

##### UK/EU/TURKEY REGION

Intertek, SGS, STR

##### INDIA/SRI LANKA/BANGLADESH REGION

Intertek, SGS, STR, Texanlab

##### CHINA/HK, FAR EAST REGION

Intertek, SGS, STR

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## APPENDIX 5

### Childrenswear : Clarification of Chemical Restrictions

The following extra restrictions are required for Kidswear merchandise:

- **Formaldehyde** – deliberate use of Formaldehyde containing products not permitted in underwear or babywear.
- **PVC and Phthalates** – not permitted in apparel products (normally found in panel prints).
- **Biocidal finishes** – not permitted.
- **Flame Retardant finishes** – not permitted.

All product must comply with EN71 (relevant parts), however the levels specified in this legislation for certain chemicals is much higher than would reasonably be expected in textile production therefore the permitted levels for Marks & Spencer production are those detailed in the table on pages 9-12 and not those in the legislation.

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