Restricted Substances List (RSL) 2023

Pentland

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About Pentland Brands Ltd

Pentland Brands Limited, a Pentland Group plc owned company, is a global family business bringing some of the most loved active and footwear brands to millions of people around the world.

We own Speedo, Berghaus, Canterbury of New Zealand, Endura, Mitre, Ellesse, Boxfresh, SeaVees, KangaROOS and Red or Dead. We're the global licensee for Kickers in the UK and Ireland, and have a joint venture partnership for Lacoste Chaussures.

Pentland Brands requires that its products, and the raw materials used to construct those products, are manufactured with regard for the safety of consumers and factory workers, and with consideration for the wider environment.

This Restricted Substances List (RSL) provides details of chemicals and other potentially harmful substances that are restricted by Pentland Brands, and allowable chemical limits for products placed on the market.

Pentland Brands RSL applies to all materials, components and finished products manufactured and sold under the name of any of the Pentland Brands family of brands, whether sourced directly or by brands' licensee partners, unless communicated otherwise in writing.

All materials, components and finished products manufactured for Pentland Brands must comply with the requirements in this document no later than 90 days after the release date, and must also comply with all applicable legislation.

Alignment with the AFIRM RSL

The Apparel and Footwear International RSL Management (AFIRM) Group, is an apparel and footwear industry body whose aim is to reduce the use and impact of harmful substances in apparel and footwear supply chains.

One of its areas of focus, is to create an industry-wide RSL to provide an aligned approach to managing restricted substances across the largely shared global supply chains of member brands.

Based on the collaborative effort of more than 20 brands, the AFIRM RSL reduces the large number of complicated and sometimes contradictory brand RSLs, while simplifying the approach and accelerating efforts to reduce chemical hazards.

Pentland Brands has aligned with the AFIRM RSL (with some additions and modifications seen opposite) and suppliers should ensure that all components in Pentland Brands' products are compliant.

The AFIRM RSL is available at:

https://afirm-group.com/afirm-rsl/

AFIRM RSL – Pentland Brands modifications

- Solvents: To enable us to understand the presence of DMFa in our supply chain: all results above 100ppm in mock leather must be reported. All results above 50ppm in other end uses must be reported
- VOCs: All results above 20ppm must be reported so that Pentland Brands can map solvent usage in the supply chain. Legal compliance [e.g., SVHCs] also required.
- PAH: Any results for naphthalene over 2ppm must be reported to Pentland.

AFIRM RSL – Pentland Brands additions

Additions are included for substances not listed on the AFIRM RSL that are restricted by Pentland Brands; see page 6 for more details:

- Isocyanates
- Antimicrobial guidance
- Substances listed as SVHCs under REACH

Packaging

Pentland Brands has adopted the AFIRM Packaging RSL and suppliers should ensure that packaging for all Pentland Brands' products are compliant.

The AFIRM Packaging RSL is available at:

https://www.afirm-group.com/packaging-restricted-substance-list/

Table 1: Pentland Brands requirements additional to the AFIRM RSL

CAS No.	Substance	Limits Raw material and finished product	Potential uses Textile processing for apparel and footwear	Suitable test method Sample preparation and measurement	Pentland modification
Isocyanates					
multiple	Diphenylmethane diisocyanate (MDI)	1 ppm free Blocked – monitor levels	Isocyanates are the building blocks for polyurethane and under normal circumstances they are fully reacted to leave no residues in PU materials. Isocyanates are present in some adhesive formulations and if the adhesives are not formulated or cured properly then failures can occur.	Free- HPLC Blocked: GC-MS with injector block temperature at 300 ° C; confirmation at 180 ° C	
822-06-0	Hexamethylene diisocyanate (HDI)				
4098-71-9	Isophorone diisocyanate (IPDI)				
2778-42-9	Tetramethylxylene diisocyanate (TMXDI)				
584-84-9 and 91-08-7	Toluene diisocyanate (TDI)				
3173-72-6	Napthylene-1,5,di-isocyanate (1,5-NDI)				
Anti-microbials					
The use of anti-microbial finishes or components containing anti-microbials is not permitted unless agreed in writing. See *Other guidelines and policies* section for more details.					
Substances of Very High Concern (SVHC)					
The use of any chemicals listed as an SVHC under REACH legislation is not permitted unless agreed in writing. The list of SVHCs can be found here: https://echa.europa.eu/candidate-list-table It must be understood that the list is subject to change and some SVHCs may become the subject of authorisation requirements or more stringent legislation.					

Table 2: Age ranges for interpreting RSL limits

Various countries define the terms “babies,” “children,” and “adults” differently. Based on legislation, the age ranges listed in the table below satisfy the most restrictive global requirements.

	Age range
Babies	0 to 36 months
Children	36 months to 14 years
Adults	14 years and older

Table 3: Agricultural pesticides detailed list

CAS No.	Pesticide name
93-72-1	2-(2,4,5-trichlorophenoxy) propionic acid, its salts and compounds
93-76-5	2,4,5-T
93-72-1	2,4,5-TP
94-75-7	2,4-D
309-00-2	Aldrine
86-50-0	Azinophosmethyl
2642-71-9	Azinophosethyl
4824-78-6	Bromophos-ethyl
2425-06-1	Captafol
63-25-2	Carbaryl
510-15-6	Chlorbenzilat
57-74-9	Chlordane
6164-98-3	Chlordimeform
470-90-6	Chlorfenvinphos
1897-45-6	Chlorthalonil
56-72-4	Coumaphos
68359-37-5	Cyfluthrin
91465-08-6	Cyhalothrin
52315-07-8	Cypermethrin
78-48-8	S,S,S-Tributyl phosphorotrithioate (Tribufos)
52918-63-5	Deltamethrin
53-19-0	DDD
72-54-8	
3424-82-6	DDE
72-55-9	
50-29-3	DDT
789-02-6	
333-41-5	Diazinone
1085-98-9	Dichlofluanide
120-36-5	Dichloroprop
115-32-2	Dicofol
141-66-2	Dicrotophos
60-57-1	Dieldrine
60-51-5	Dimethoate
88-85-7	Dinoseb, its salts and acetate
57648-21-2	DTTB (Timiperone)
115-29-7	Endosulfan
959-98-8	Endosulfan I (alpha)
33213-65-9	Endosulfan II (beta)
72-20-8	Endrine
66230-04-4	Esfenvalerate
106-93-4	Ethylendibromid
56-38-2	Ethylparathione

CAS No.	Pesticide name
51630-58-1	Fenvalerate
1336-36-3	Halogenated biphenyls, including Polychlorinatedbiphenyl (PCB)
53469-21-9	
Various	
Various	Halogenated terphenols, including polychlorinated terphenyl (PCT)
Various	Halogenated naphthalenes, including polychlorinated naphthalenes (PCNs)
Various	Halogenated diarylalkanes
99688-47-8	Halogenated diphenyl methanes, including Monomethyl-dibromo-diphenyl methane, Monomethyl-dichloro-diphenyl methane, and Monomethyl-tetrachloro-diphenyl methane
81161-70-8	
76253-60-6	
76-44-8	Heptachlor
1024-57-3	Heptachloroepoxide
319-84-6	a-Hexachlorocyclohexane with and without Lindane
319-85-7	b-Hexachlorocyclohexane with and without Lindane
319-86-8	g-Hexachlorocyclohexane with and without Lindane
118-74-1	Hexachlorobenzene
465-73-6	Isodrine
4234-79-1	Kelevane
143-50-0	Kepone
7784-40-9	Lead hydrogen arsenate
58-89-9	Lindane
121-75-5	Malathione
94-74-6	MCPA
94-81-5	MCPB
93-65-2	Mecoprop
10265-92-6	Metamidophos
72-43-5	Methoxychlor
2385-85-5	Mirex
6923-22-4	Monocrotophos
298-00-0	Parathion-methyl
1825-21-4	Pentachloroanisole
7786-34-7	Phosdrin/Mevinphos
72-56-0	Perthane
31218-83-4	Propethamphos
41198-08-7	Profenophos
13593-03-8	Quinalphos
82-68-8	Quintozene
8001-50-1	Strobane
297-78-9	Telodrine
8001-35-2	Toxaphene
731-27-1	Tolylfluanide
1582-09-8	Trifluraline

Supplier’s responsibility

It is the supplier’s responsibility to comply with this RSL and all relevant legislation, thereby avoiding the use of harmful or illegal chemicals in the making of Pentland Brands’ products. The requirement to comply with this RSL and all relevant legislation is included in, or additional to, all legal partnership agreements relating to the manufacture of Pentland Brands’ product lines. Suppliers must take ownership of associated testing and chemical traceability in order to provide Pentland with compliant materials and product.

1

Pentland Brands recommends that in order to have confidence in the compliance of certain materials / finished goods that suppliers conduct risk-based testing per the testing matrix outlined by AFIRM and on the following slide.

2

Pentland Brands expect suppliers to be able to provide evidence that materials, components or finished products supplied comply with the RSL. Responsibility for testing and associated costs lies with the supplier.

Suppliers must therefor declare if any material is unable to meet RSL for further discussion with Pentland.

Pentland Brands will also carry out ad-hoc due diligence testing on material, components or finished product as they see fit. This additional testing will be coordinated and paid for by Pentland.

3

Pentland Brands will assess any failure against the RSL standards individually and take appropriate action.

In the event of a test failure, suppliers will be required to conduct failure analysis and, where appropriate, provide an action plan to resolve the issue for current and/or future production.

Suppliers may be required to remediate products, remake products or replace affected components at their own cost.

Additional requirements

Individual Pentland Brands may have additional requirements relating to certification requirements or substances used in manufacturing their products. Brands will communicate these requirements directly to the supplier and/or licensee partners.

Testing matrix

In the apparel and footwear supply chain, certain types of fibres and materials are more likely to contain restricted substances than others. AFIRM recommend the following approach to testing, giving guidance to suppliers about the likelihood of presence of substances in a certain material. This matrix was developed by AFIRM using knowledge of industry standard RSL testing approaches and their broader understanding of supply chain operations across their brand members.

Chemicals assigned a Level 1 in materials should be viewed as the minimum amount of testing required to satisfy AFIRM member requirements, and chemicals assigned a Level 2 are recommended for additional testing and may be required at brand discretion.

Rating	Description
1	Red indicates higher risk, and that testing is required
2	Orange indicates a lower risk, and that testing is recommended
White	Blank indicates no risk, that the substance is not anticipated to be present in the material. No testing required.
Border	Boxes with border highlighted have been modified by Pentland to reflect risks observed in its supply chain

Testing matrix

NOTE: For recycled materials, additional testing may be required at Level 1; check with each brand on requirements.

Substance	Natural Fibers	Synthetic Fibers	Natural & Synthetic Blends	Artificial Leather	Natural Leather	Natural Materials	Metals	Other: Porcelain, Ceramic, Glass, Crystal, Etc.	Feathers & Down	Polymers									Coatings & Prints	Glue
										EVA	PU Foams	All other PU & TPU	Rubber Excludes Latex and Silicon Rubbers	Polycarbonate	ABS	PVC	All Other Foams, Plastics & Polymers			
Acetophenone and 2-Phenyl-2-Propanol										2										
Acidic and Alkaline Substances (pH)	1	1	1	1	1															
Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs), including all isomers	1	1	1	1	1	1			1	1	1	1	1	1	1	1	1	1	1	1
Azo-amines and Aryl Amine salts	1	1	1	1A	1	1A			1A										1	
Bisphenols		2	2		2					2	2	2	2	1	2	2	2			
Chlorinated Paraffins				2	1					2	2	1	1	2	2	1	2			
Chlorophenols	2	2	2		2															
Chlorinated Benzenes and Toluenes		2	2	2																
Dimethylfumarate (DMFu)					2															
Dyes, Forbidden and Disperse		1	1	1															2	
Dyes, Navy Blue		2	2																	
Flame Retardants	2B																			
Fluorinated Greenhouse Gases																				
Formaldehyde	1	1	1	2	1	1C							2						1	1

A Level 1 for dyed/colored materials.
B Level 2 if Flame Retardant use or contamination is suspected.
C Level 1 for Wood, Paper, and Straw materials.
D Level 2 for Wool materials.
E Level 2 if extractrable Chrome above 1 ppm.
F Copper is exempt from restriction limits in Metal parts.
G Level 2 for plant-based fibers; N/A for animal-based fibers.
H Level 1 for Cadmium and Lead only; Crystal is exempt for Lead.
J Level 1 for PVC materials.
K Level 2 for Styrene/Butadiene Rubbers (SBRs) only.
L Level 1 if a Fluorinated finish is applied.
M Level 1 if Rubber or black Polymeric materials, otherwise Level 2.
N Level 1 for PU-based materials.

Testing matrix

Substance	Natural Fibers	Synthetic Fibers	Natural & Synthetic Blends	Artificial Leather	Natural Leather	Natural Materials	Metals	Other: Porcelain, Ceramic, Glass, Crystal, Etc.	Feathers & Down	Polymers										
										EVA	PU Foams	All other PU & TPU	Rubber Excludes Latex and Silicon Rubbers	Polycarbonate	ABS	PVC	All Other Foams, Plastics & Polymers	Coatings & Prints	Glue
Heavy Metals, Chromium VI	2D	2E			1														
Heavy Metals, Extractable	1	1	1	2	1		2F			2	2	2	2	2	2	2	2	2	
Heavy Metals, Nickel Release							1												
Heavy Metals, Total	2G		2G	1	2		1	1H		1	1	1	1	1	1	1	1	1	2
Monomers, Styrene & Vinyl Chloride				1J									2K		2	1		1J	
N-Nitrosamines													2						
Organotin Compounds		2	2	1	2						1	1	1			1	1	1	1
Ortho-phenylphenol (OPP)	2	2	2	2	2													2	
Ozone-depleting Substances																			
Perfluorinated and Polyfluorinated Chemicals (PFCs)	1L																		
Pesticides, Agricultural																			
Phthalates				1						1	1	1	1	2	2	1	1	1	1
Polycyclic Aromatic Hydrocarbons (PAHs)				2						1M	1M	1M	1			1M	1M	1M	1M
Quinoline		2	2																
Solvents / Residuals, DMFa				1							1	1						1N	1N
Solvents / Residuals, DMAC and NMP				1							2	2					2	2	2
Solvents / Residuals, Formamide										2								2	
UV Absorbers / Stabilizers										2	2	2	2	2	2	2	2		
Volatile Organic Compounds (VOCs)				2						2	2	2	2	2	2	2	2	2	1

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Manufacturing chemistry guidance

In order to ensure compliance with the RSL and minimise the chemical risks to workers and the environment in manufacturing, it is strongly recommended suppliers make use of the systems outlined on the next page, to screen for compliant formulations.

AFIRM chemical information sheets

AFIRM member brands have produced a comprehensive set of educational materials advising suppliers about best practices for chemical management. Each chemical information sheet covers a chemical or class of chemicals, giving an overview of the substance(s), where they are likely to be found in the material process and how to maintain compliance with the AFIRM RSL. The complete library of chemical information sheets is available on the AFIRM website at http://afirm-group.com/information-sheets

For more information on the AFIRM Group visit www.afirm-group.com

Additional external resources to provide suppliers with guidance on best practice chemical compliance

bluesign ®

The bluesign® bluefinder is an online database of bluesign® approved chemicals which can be used to screen for suitable chemistry. Suppliers which are not already a member of the bluesign® system should contact cr@pentland.com for details on how to access bluesign® bluefinder.

For more information visit www.bluesign.com

ZDHC manufacturing Restricted Substances List (MRSL)

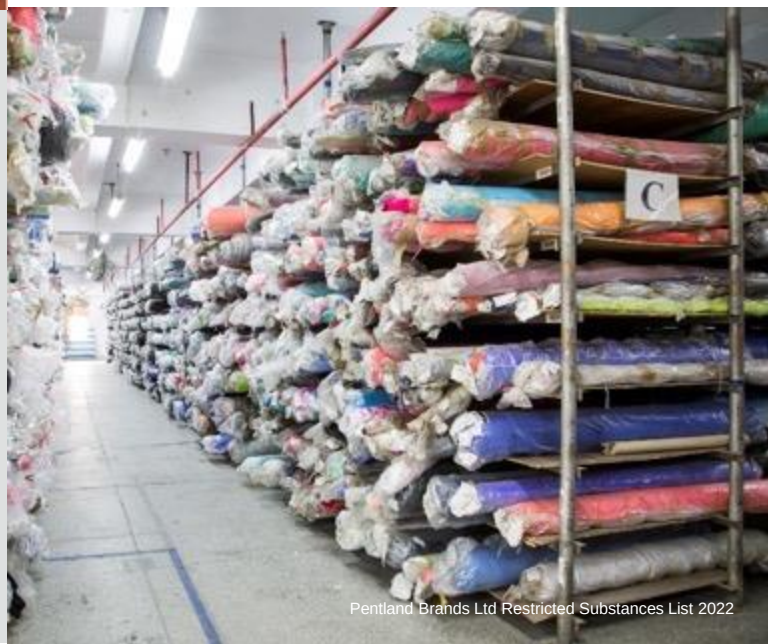
Zero Discharge of Hazardous Chemicals (ZDHC) is promoting a harmonised approach to managing chemicals during the processing of raw materials within the apparel and footwear supply chain through their MRSL. Pentland Brands encourages its supply chain to contact their chemical suppliers and communicate the ZDHC MRSL standard to them. Chemical suppliers should be able to confirm which of their products meet this standard.

A copy of the most current ZDHC MRSL can be downloaded from the ZDHC website www.roadmaptozero.com

OEKO-TEX®

The OEKO-TEX® Eco-Passport system certifies chemical formulations for compliance against the OEKO-TEX ® RSL and MSRL. This certification can be used to screen chemical formulations.

For more information visit www.oeko-tex.com



Other guidelines and policies

Anti-microbial guidelines

Pentland Brands currently restricts the use of anti-microbial technologies, approval for the use of which must be sought in writing. It applies where a chemical is added to the fabric (as a finish or within the fibre itself) in order to impart anti-bacterial, anti-microbial or anti-odour properties. It does not apply to fibres which have an inherent anti-odour property such as wool.

The most likely scenarios whereby these chemicals could enter Pentland Brands products are:

1) Specified as a performance requirement e.g. anti-odour finishes
2) Used to inhibit growth of mould during storage/transportation

Dimethyl fumarate (DMFu)

The use of DMFu to inhibit growth of mould during storage or transport is prohibited

Animal based products

There are additional requirements for the use of animal based products. These are outlined in the Pentland Brands' Ethical materials policy and can be downloaded from Pentland Brands / Standards, policies and resources

The conditions described below must be met prior to the approval of such chemicals for use within Pentland Brands product:

- Full disclosure of the chemistry used
- Be proven effective for our product types
- No leaching or release of chemicals in order to be effective
- Be registered under the EU Biocidal Products Regulation
- Meet global legislative standards
- Comply with the Pentland Brands Restricted Substances List
- Be listed in the bluesign® bluefinder or Oeko-tex® list of approved products with biological activity

Please contact product.compliance@pentland.com for further guidance on the approval process.

For further information about Product Compliance at Pentland Brands, contact product.compliance@pentland.com or visit www.pentlandbrands.com

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