



## Restricted Substances List (RSL) and Product Safety Manual

July 2015 Version  
Effective July 01, 2015

## Contents

Policy Amendment Record .....	4
Introduction .....	6
Responsibilities .....	6
Regulatory Requirements .....	8
Regulation, Evaluation, Authorization and Restriction of Chemicals (REACH).....	8
EU Biocidal Product Regulation (BPR) .....	9
Reporting Regulations - Washington State Children Safe product Act (CSPA), Vermont Toxic Free Families Act, and Maine Toxic Chemicals in Children’s Products.....	10
California Proposition 65 .....	10
Restricted Substances List (RSL).....	11
Restricted Substances List (RSL) .....	12
Alkylphenol Ethoxylates (APEOs) and Alkylphenols (AP) .....	12
Azo dyes (Restricted Amines) .....	12
Disperse Dyes .....	13
Carcinogenic Dyes.....	14
Solvents .....	14
Pesticides .....	15
Asbestos.....	16
Fluorinated Greenhouse Gases .....	16
Dioxins & Furans.....	17
Flame Retardants.....	18
Extractable Heavy Metals in textile (Perspiration).....	19
Extractable Heavy Metals (Acidic solution, Children’s product) .....	20
Total and Released Metal Content .....	21

Miscellaneous .....	22
Organotin Compounds .....	23
Nitrosamine in Rubber .....	23
Polyvinylchloride (PVC).....	24
Phthalates.....	25
Polycyclic Aromatic Hydrocarbons (PAHs) .....	26
Packaging Restrictions .....	27
Heavy Metals in packaging material.....	27
Manufacturing Restricted Substances List (MRSL) .....	28
Restriction of Substances Used in Manufacturing .....	28
Electrical and Electronic Equipment (EEE) Policy.....	29
Substances in Electrical and Electronic Equipment.....	30
Metals in Batteries.....	30
Conflict Minerals.....	30
Policy on Textiles, Fibers and Skins Derived from Animals.....	31
Policy on Nanotechnology .....	31
Policy on Durable Water Repellant Chemical .....	33
RSL Testing Guideline .....	34
Testing Requirement .....	35
Sampling and Test Request Procedures .....	35
Glossary of Terms/Acronyms.....	36
Columbia Approved RSL Testing Laboratories.....	37
Columbia Sportswear Company RSL Contact Information .....	41

## Policy Amendment Record

Date	Section	Page	Changes
01 Aug 2012	Previous version	-	-
12 May 2014	Washington Children's Safe Product Act	7	Added section
12 May 2014	EU REACH - SVHC	7	Inform CSC of any SVHC > 0.1% by weight per article
12 May 2014	RSL	9-17	Azo Dyes, Disperse Dyes, Nickel Release - Test method updated
12 May 2014	RSL	10-20	PFOA, Phthalates, Carcinogenic dyes, PAHs, Heavy metals in packaging - Added
12 May 2014	RSL	13	Fluorinated Greenhouse Gases – Changed requirement to “prohibited”
12 May 2014	RSL	15	Flame retardants – Changed CSC requirement to “prohibited”
12 May 2014	RSL	19	PVC usage requirements revised
12 May 2014	Policy on Textiles, Fibers, and Skins Derived from Animals	24	Animal material restrictions revised
12 May 2014	RSL and Product Safety Procedure	25	RSL test sample compositing procedure revised
12 May 2014	RSL and Product Safety Procedure	25	Disperse dyes included in synthetic testing package. PAHs included in plastic testing package for footwear
12 May 2014	Columbia Approved RSL Testing Laboratories	28	Laboratory contacts revised
12 May 2014	Columbia Sportswear Company contact list	34	CSC contacts revised
01 July 2015	REACH	8	Revise to material level requirement for complex articles
01 July 2015	Biocide Products Regulation	9	Added section
01 July 2015	Reporting Regulations - Washington Children's Safe Product Act	9	Merge into a new Reporting Regulation section
01 July 2015	Reporting Regulations	10	Vermont reporting regulation is added
01 July 2015	Reporting Regulations	10	Maine reporting regulation is added
01 July 2015	California Proposition 65	10	California Proposition 65 is added
01 July 2015	RSL	11,23	APEOs and AP, Organotin Compounds - Prohibition on the usage of active biological substance in EU added in chemical description
01 July 2015	RSL	11-24	Disperse dyes, Solvents, Pesticides, Fluorinated Greenhouse Gases, Flame Retardants, Total and Released Metal Content , Miscellaneous, PVC - Restricted Chemicals added
01 July 2015	RSL	11-26	APEOs and AP, Disperse Dyes, Carcinogenic Dyes, Solvents, Total and Released Metal Content , Miscellaneous, PAHs - CSC restrictions limit updated

01 July 2015	RSL	11-26	APEOs and AP, Disperse Dyes, Carcinogenic Dyes, Solvents, Pesticides, Fluorinated Greenhouse Gases, Total and Released Metal Content, Organotin Compounds, Miscellaneous, PAHs - Test method updated
01 July 2015	RSL	20	Extractable Heavy Metals (Acidic solution, Children's product) added
01 July 2015	RSL	21	Total and Released Metal Content - Definition of prolonged contact added, Antimony, Arsenic, Cobalt and Mercury requirement are added
01 July 2015	RSL	23	Nitrosamine in Rubber - added
01 July 2015	Packaging Restrictions	27	No change of requirement but separate in a new section
01 July 2015	Electrical and Electronic Equipment Policy	30	Metals in Batteries - CSC mercury restriction revised
01 July 2015	Policy on Textiles, Fibers, and skins Derived from Animals	31	Add dog and cat fur restriction
01 July 2015	Policy on Nanotechnology	31	Section added
01 July 2015	Policy on DWR Chemical	33	Section added
01 July 2015	RSL and Product Safety Testing Procedures	34	Testing Guidelines revised
01 July 2015	RSL and Product Safety Testing Procedures	35	Sampling and test request procedures revised – Finished good finishing sample submission requirement added
01 July 2015	Columbia Approved RSL Testing Laboratories	37-40	Laboratory contacts revised
01 July 2015	Columbia Sportswear Company RSL Contact List	41	CSC contacts revised

## Introduction

Columbia Sportswear Company (CSC) and each of its subsidiaries and brands are committed to delivering safe, high-value products to our customers. However, we recognize this must be a shared effort and we depend on our partners throughout the supply chain to support our mission. This manual outlines your responsibilities as a licensee, vendor, or supplier (all referred to as suppliers from hereinafter) to CSC and its affiliated brands including Columbia Sportswear, Mountain Hardwear, Sorel, Montrail, OutDry and Pacific Trail.

CSC requires its suppliers to be aware of the standards set forth in this manual and restrict the use of substances listed in the Restricted Substances List (RSL). CSC monitors compliance with these standards through the Vendor Approval and RSL Testing Programs and may remove a supplier from the approved list based on noncompliance. Additional requirements may be set forth in CSC policies and manuals including the *Columbia Sportswear Company Material Quality Manual, Quality Assurance Manuals, Standards of Manufacturing Practices, Environmental Health and Safety Operating Policy and Procedure*, as well as other documents and agreements. CSC expects suppliers to meet all CSC standards and ensure that all materials, finished goods, packaging and manufacturing practices are in compliance with all applicable laws, rules and regulations.

## Responsibilities

- The RSL is updated as needed and the most current version is always available to you upon request. Suppliers are responsible for securing the most recent version of the RSL [http://www.columbia.com/About-Us\\_Corporate-Responsibility\\_Environmental-Responsibility.html](http://www.columbia.com/About-Us_Corporate-Responsibility_Environmental-Responsibility.html)
- Suppliers bear responsibility to familiarize themselves with the RSL and Product Safety requirements set forth in this manual and all relevant global product safety requirements and ensure that all materials, components, and products supplied to CSC meet the requirements.
- Suppliers bear responsibility for adhering to all applicable legal requirements regardless of whether they are referenced in this manual.
- Suppliers are responsible for informing their suppliers and subcontractors (including all accessory suppliers, dye mills, print mills, tanneries, chemical suppliers, etc.) of CSC's requirements. Where the supplier controls the selection and sourcing of materials or components, they are responsible for ensuring compliance with the requirements of the RSL and Product Safety Manual.
- If at anytime the supplier becomes aware they cannot meet the requirements of the RSL, they must immediately notify an appropriate CSC contact.
- CSC reserves the right to cancel orders and terminate a business relationship if the supplier fails to meet these requirements. Compliance with the RSL is mandatory and must be met in its entirety for every order placed by CSC.
- Suppliers are responsible for maintaining adequate systems to control quality, safety and chemical use. Suppliers must maintain safety and environmental programs including documented procedures and training to protect workers and the environment from exposure to chemicals.

- If at any time any party has knowledge that a material or product fails, or will fail, to meet a standard as specified in the RSL and Product Safety Manual or any applicable requirement, production must be stopped, all suspect product must be placed on hold and appropriate CSC personnel immediately notified for further action.
- No product or material containing suspected or actual defects that result in RSL or product safety violations may be sold or transferred to CSC or any other party.
- Suppliers will be held responsible for all losses and damages incurred by CSC for product or materials that fail to meet these requirements.
- Material, component and product testing may be required by CSC at any stage of manufacturing to demonstrate compliance with the requirements of this manual. Testing may be random or part of a scheduled testing program according to CSC requests. All testing must be done by a CSC-approved laboratory at the supplier's expense (see Testing Procedures section).
- Sampling, testing and reporting must be performed according to the RSL Testing Procedures in this manual. If test results fail to demonstrate compliance with the requirements of this manual or any legal requirement, production must be halted and may not continue until materials, components and products can be proven to meet the requirements. CSC personnel must be notified immediately of any nonconforming material, component or product.
- Suppliers are responsible for documenting all RSL and product safety failures and proposed remedial actions. All appropriate documentation must be submitted to CSC in accordance with the guidelines in this manual.
- Suppliers are required to provide to CSC appropriate documentation, such as 3<sup>rd</sup> party test results, and certification documents, lot tracking and production information, or any information necessary to complete Certificates of Conformity (COC) or demonstrate compliance. Suppliers must maintain records of all compliance and production documents for a minimum of 5 years from the date of production. CSC reserves the right to review all records for any shipment and will consider any shipment without associated compliance documents to be in violation of this policy.
- Suppliers shall allow or obtain permission for an authorized representative of CSC to inspect, at anytime during normal business hours, any premises of any facility, including any subcontractor facility where any CSC products or raw materials are developed, manufactured or stored. The authorized representative may take samples of products or materials during such inspections.
- Suppliers at all levels of the supply chain must maintain chemical inventories for all substances used in CSC materials or products and must provide Material Safety Data Sheet (MSDS) and chemical formulations upon request for each input used in, or in the manufacturing of, CSC products.
- Upon request, suppliers must disclose the functional use of each chemical and must distinguish process chemicals from those intended to remain in final product.
- Suppliers may be required to maintain a lot tracking system whereby lot numbers or specific identification of raw materials, components and parts can be traced through all stages of production to a finished good and a finished good can be traced back to records of substituent raw materials, components and parts.

- Suppliers responsible for importation of finished goods are required to furnish compliance documentation and Certificates of Conformity (COC) to CSC upon request for any regulated product.

## Regulatory Requirements

From time to time CSC may become aware of new regulatory requirements. If applicable, CSC may update this manual to conform to such requirements and will endeavor to inform suppliers annually or as needed of new requirements. However failure of CSC to inform suppliers of regulatory changes does not release suppliers from responsibility to monitor and fully comply with all relevant legal requirements.

## Regulation, Evaluation, Authorization and Restriction of Chemicals (REACH)

REACH Regulation (EC) No 1907/2006 of the European Parliament and European Council is the European Community Regulation on chemicals and their safe use. REACH entered into force on June 1, 2007 and concerns the Registration, Evaluation, Authorisation and Restriction of Chemical substances. REACH Annex XVII which came into force on June 1, 2009 contains restrictions for marketing and use of certain dangerous substances, mixtures and articles adopted since 1976 in Directive 76/769/EEC.

Suppliers may have legal obligations related to the REACH regulations and the REACH Candidate List of Substances of Very High Concern (SVHC). Suppliers must continuously monitor updates to REACH, Annex XVII and Candidate List of Substances of Very High Concern (SVHC) and ensure materials and products supplied to CSC comply with all REACH requirements regardless of whether the substances are included in the RSL.

Suppliers must evaluate each step in the supply chain, including the sourcing and processing of raw materials, component parts, chemicals and other product ingredients and immediately inform CSC of any cases where a substance listed in the candidate list is present in the product at or above a 0.1% concentration by weight per article. In the case of articles composed of multiple materials, the limit applies to each homogenous part or component of the article. CSC may require random testing for SVHC in materials and finished products to demonstrate compliance.

REACH information may be found at <http://echa.europa.eu/web/guest/regulations/reach/> and <http://www.echa.europa.eu>  
Candidate list substances can be found at <http://echa.europa.eu/web/guest/candidate-list-table>  
Pre-candidate substances are found at <http://echa.europa.eu/web/guest/registry-of-current-svhc-intentions>

## EU Biocidal Product Regulation (BPR)

Biocides include chemicals used to suppress organisms such as pests, molds and bacteria that are harmful to human or animal health, or that cause odor or damage to materials. Examples of biocidal products include articles treated with insect repellents, disinfectants and antimicrobial chemicals.

According to EU Regulation No. 528/2012, biocidal products and their active substances must be authorized before use or placing on the EU market. All treated products shall contain only authorized biocidal substances. Suppliers must inform CSC and submit information regarding any biocide chemical used in any product or treated article bearing a CSC brand. Any active biocidal substance used in CSC products must be in compliance with BPR.

Information on the EU Biocide Product Regulation may be found at <http://echa.europa.eu/regulations/biocidal-products-regulation>

### **Labeling Requirements for treated articles**

Treated articles shall be labeled, if there is:

- a claim that the treated article has biocidal properties is made
- it is required in the conditions of the approval of the active substance contained in the biocidal product used to treat the article

The label should contain below, and supplier must provide below information when relevant:

- a statement that the treated article incorporates biocidal products
- substantiation of biocidal property attributed to the treated article
- name of all active substances contained in the biocidal products
- name of all nanomaterials contained in the biocidal products
- any relevant instructions for use

## Reporting Regulations - Washington State Children Safe product Act (CSPA)<sup>1</sup>, Vermont Toxic Free Families Act<sup>2</sup>, and Maine Toxic Chemicals in Children's Products<sup>3</sup>

Various US state level regulations may require importers to notify relevant authorities of the presence of **Chemicals of High Concern to Children (CHCC) or Priority Chemicals (PC)** in children's products. Suppliers must inform CSC product safety if any of the listed CHCCs or PCs are intentionally added to any CSC product, or if a listed chemical is a contaminant in the process that exceeds 100 ppm in any component. In addition to chemical disclosure and reporting, various regulations may require documented exposure assessments, alternatives assessments, substitutions or removal of CHCC or PC.

A list of Chemicals of High Concern to Children or Priority Chemicals can be found at:

<http://www.ecy.wa.gov/programs/swfa/cspa/chcc.html>

<http://www.leg.state.vt.us/docs/2014/Acts/ACT188.pdf>

<http://www.maine.gov/dep/safechem/priority.html>

## California Proposition 65

Proposition 65, the Safe Drinking Water and Toxic Enforcement Act of 1986, was intended by its authors to protect California citizens and the State's drinking water sources from chemicals known to cause cancer, birth defects or other reproductive harm, and to inform citizens about exposures to such chemicals. Businesses and Manufacturers must provide Proposition 65 warnings if any listed chemical's exposures greater than the safe harbor level. Suppliers must inform CSC product safety if any of the listed chemicals are intentionally added to any CSC product, or if a listed chemical is contaminant in the process that exceed safe harbor level.

Proposition 65 list can be found at [http://www.oehha.ca.gov/prop65/prop65\\_list/Newlist.html](http://www.oehha.ca.gov/prop65/prop65_list/Newlist.html)

---

<sup>1</sup> Washington State Children Safe Product Act, RCW 70.240 reporting rule

<sup>2</sup> Vermont Toxic Free Families Act, S239, Act 188, An Act relating to the regulation of toxic substances reporting rules

<sup>3</sup> Maine Toxic Chemicals in Children's Product, M.R.S.A. §1691-1695, A law relating to the regulation of toxic substances reporting rules

## Restricted Substances List (RSL)

The goal of the RSL is to protect workers, the environment, consumers, the company and its brands. The RSL is not intended to be a comprehensive list of all global restrictions but rather a compliance tool for our suppliers. The CSC RSL and Product Safety Manual reflects mandatory regulations and voluntary safety standards applicable to our products. In some cases CSC requirements may go beyond the legal requirements of any country, in these cases suppliers are expected to meet CSC requirements. The RSL applies to all products of all brands supplied to CSC including apparel, footwear, equipment, accessories and other products. The RSL also applies to all materials, components, parts and other goods supplied for use in manufacturing CSC products and packaging. Restricted substances must not exceed the limits stated in the Columbia Sportswear Company RSL.

The substances listed in the RSL are grouped by type or functionality and are referenced by the Chemical Abstract Service Number (CAS Number) and common chemical name or color index name. Corresponding restrictions, limits for use and required test methods, if available, are listed for each substance or chemical group. The most up to date test method should be used.

A brief description of the substance (or chemical group) and an indication of where it may be found in materials or products is also provided. This information<sup>4</sup> is provided as a general reference only and does not represent the actual risk a substance may be present. It is advisable to consult your own materials experts or outside expertise to learn more about these specific substances and their potential occurrence in the materials or products you supply.

---

<sup>4</sup> Source: Apparel and Footwear International RSL Management Working Group (AFIRM), <http://www.afirm-group.com/supplierrsltool.htm>  
Columbia Sportswear Company RSL and Product Safety Manual – July 2015 Version

## Restricted Substances List (RSL)

Alkylphenol Ethoxylates (APEOs) and Alkylphenols (AP)				
CAS Number	Chemical Name/Color Index Name	CSC Restriction/Limit on Article or Tested Component	Test Method [detection limit]	Chemical Description/Where Chemical May be Found/Comments
25154-52-3	NP (Nonylphenol)	< 100 ppm for each	ISO/DS 18254) [10 mg/kg each]	Description: Nonyl phenol and NPEs are used in industrial surfactants and detergents. Where they may be found: In cleaners, detergents and prewash agents, textile processing agents, paints and coatings and biocides. None of these substances can be used in the EU as an active biocidal substance.
27193-28-8	OP (Octylphenol)			
9016-45-9	NPEO (Nonyl phenoethoxylates)			
9002-93-1	OPEO (Octylphenol ethoxylates)			

Azo dyes (Restricted Amines <sup>5</sup> )				
CAS Number	Chemical Name/Color Index Name	CSC Restriction/Limit on Final Product or Tested Component	Test Method [detection limit]	Chemical Description/Where Chemical May be Found/Comments
60-09-3	4-Amino azobenzene	< 20 mg/kg	Textile: EN 14362-1 Leather: ISO 17234  4-Aminoazobenzene: Textiles: EN 14362-3 Leather: ISO 17234-2  If market China: Textiles: GB/T 17592 Leather and fur : GB/T 19942  4-Aminoazobenzene (pAAB) GB/T 23344  Detection limit = 5mg/kg	Description: Azo dyes incorporate one or several azo groups (-N=N-) bound with aromatic compounds. Thousands of azo dyes exist, however, only those which can degrade to form the listed amines are restricted.  Where they may be found: In textiles and apparel, azo dyes (which may degrade to form listed amines) may be found in dyed fabric or leather.
97-56-3	<i>o</i> -Aminoazotoluene			
92-67-1	4-Aminodiphenyl			
99-55-8	2-Amino-4-nitrotoluene			
90-04-0	<i>o</i> -Anisidine			
92-87-5	Benzidine			
106-47-8	<i>p</i> -Chloroaniline			
95-69-2	4-Chloro- <i>o</i> -toluidine			
120-71-8	<i>p</i> -Cresidine			
615-05-4	2,4-Diaminoanisole			
101-77-9	4,4'-Diaminodiphenylmethane			
91-94-1	3,3'-Dichlorobenzidine			
119-90-4	3,3'-Dimethoxybenzidine			
119-93-7	3,3'-Dimethylbenzidine			
838-88-0	3,3'-Dimethyl-4,4'-diamino-diphenylmethane			
101-14-4	4,4'-Methylene-bis-(2-chloroaniline)			
91-59-8	2-Naphthylamine			
101-80-4	4,4'-Oxydianiline			
139-65-1	4,4'-Thiodianiline			
95-80-7	2,4-Toluenediamine			
95-53-4	<i>o</i> -Toluidine			
137-17-7	2,4,5-Trimethylaniline			
95-68-1	2,4-Xylidine			
87-62-7	2,6-Xylidine			

<sup>5</sup> AZO Dyes which, by reductive cleavage of one or more AZO groups, may release one or more of the following carcinogenic aromatic amines  
Columbia Sportswear Company RSL and Product Safety Manual – July 2015 Version

## Disperse Dyes

CAS Number	Chemical Name/Color Index Name	CSC Restriction/Limit on Final Product or Tested Component	Test Method [detection limit]	Chemical Description/Where Chemical May be Found/Comments
2475-45-8	Disperse Blue 1	< 1mg/L	DIN 54231 (Detection limit = 0.3 mg/L)	<p>Description: Disperse dyes are a class of water-soluble dyes. Those listed as restricted are suspected to cause allergic reactions.</p> <p>Where they may be found: Disperse dyes are used to dye synthetic or manufactured fibers (polyester, acetate, and polyamide).</p>
12222-75-2	Disperse Blue 35			
12223-01-7	Disperse Blue 106			
61951-51-7	Disperse Blue 124			
730-40-5	Disperse Orange 3			
13301-61-6	Disperse Orange 37/59/76			
2872-52-8	Disperse Red 1			
2832-40-8	Disperse Yellow 3			
<b>Additional Restricted Disperse Dyes</b>				
2475-46-9	Disperse Blue 3			
3179-90-6	Disperse Blue 7			
3860-63-7	Disperse Blue 26			
12222-97-8	Disperse Blue 102			
23355-64-8	Disperse Brown 1			
2581-69-3	Disperse Orange 1			
2872-48-2	Disperse Red 11			
3179-89-3	Disperse Red 17			
119-15-3	Disperse Yellow 1			
6373-73-5	Disperse Yellow 9			
12236-29-2	Disperse Yellow 39			
54824-37-2	Disperse Yellow 49			
6250-23-3	Disperse Yellow 23			
85136-74-9	Disperse Orange 149			

## Carcinogenic Dyes

CAS Number	Chemical Name/Color Index Name	CSC Restriction/Limit on Final Product or Tested Component	Test Method [detection limit]	Chemical Description/Where Chemical May be Found/Comments
3761-53-3	C.I. Acid Red 26	< 5 mg/L	DIN 54231  (Detection limit = 1 mg/L)	Description: Carcinogenic dye is not limited to azo dyes, although some of them are formed from the splitting of azo dye. Those dyestuff are with high potential carcinogenic effects to human.  Where they may be found: Carcinogenic dye can be found in both of natural fibre and synthetic fibre.
569-61-9	C.I. Basic Red 9			
632-99-5	C.I. Basic Violet 14			
1937-37-7	C.I. Direct Black 38			
2602-46-2	C.I. Direct Blue 6			
573-58-0	C.I. Direct Red 28			
2475-45-8	C.I. Disperse Blue 1			
82-28-0	C.I. Disperse Orange 11			
2832-40-8	C.I. Disperse Yellow 3			

## Solvents

CAS Number	Chemical Name/Color Index Name	CSC Restriction/Limit on Final Product or Tested Component	Test Method [detection limit]	Chemical Description/Where Chemical May be Found/Comments
76-01-7	Pentachloroethane	0.1% (mass)- For each	Headspace GC-MS for components [industry practice – not specified by regulation]; LC-MS or EN71-11	Description: Organic solvents are widely used in chemical preparations. They are also used in many processes such as dry cleaning. Some organic solvents are highly volatile.  Where they may be found: Finishing, cleaning and printing agents, dissolves and dilutes fats, oils and adhesives (e.g., in degreasing or cleaning operations).
56-23-5	Carbon Tetrachloride			
71-55-6	1,1,1-Trichloroethane			
630-20-6	1,1,1,2-Tetrachloroethane			
79-34-5	1,1,2,2-Tetrachloroethane			
67-66-3	Chloroform			
79-00-5	1,1,2-Trichloroethane			
75-35-4	1,1-Dichloroethylene			
79-01-6	Trichloroethylene			
127-18-4	Tetrachloroethylene			
-	Volatile organics	≤20 g/m2	GB 21550 Clause 5.5	

## Pesticides

CAS Number	Chemical Name/Color Index Name	CSC Restriction/Limit on Final Product or Tested Component	Test Method [detection limit]	Chemical Description/Where Chemical May be Found/Comments
93-72-1	2-(2,4,5-trichlorophenoxy) propionic acid, its salts and compounds	Not Detected	In house method – solvent extraction analysis by GC-MS, HPLC-MS/MS, GC-ECD.  (Detection limit = 0.5mg/kg)	<p>Description: A pesticide<sup>6</sup> is any substance or mixture of substances intended for: preventing, destroying, repelling, or mitigating any pest. The term pesticide also applies to insecticides, herbicides, fungicides, and various other substances used to control pests.</p> <p>Where they may be found: Dieldrin and other pesticides may be found in natural fibers during growth and processing. Fungicides may be found in leather products, used to inhibit mold growth.</p> <p>Although we do not anticipate that pesticides will be found in finished apparel and footwear, it is important to note that they are restricted</p>
93-76-5	2,4,5-trichlorophenoxyacetic acid, its salts and compounds			
309-00-2	Aldrin			
57-74-9	Chlordane			
72-54-8	Dichloro-diphenyl-dichloro ethane (DDD)			
72-55-9	Dichloro-diphenyl-dichloro ethylene (DDE)			
50-29-3	Dichloro-diphenyl-trichloro ethane (DDT)			
60-57-1	Dieldrin			
72-20-8	Endrine			
76-44-8	Heptachlorine			
1024-57-3	Epoxy-heptachlorine			
118-74-1	Hexachlorobenzene			
608-73-1	Hexachlorocyclohexane (HCH, all isomers) except gamma-hexachlorocyclohexane (except lindane [58-89-9] in medical products)			
465-73-6	Isodrin			
4234-79-1	Kelevane			
143-50-0	Kepone (Chlordecone)			
58-89-9	Lindane			
72-43-5	Methoxychlor			
2385-85-5	Mirex			
72-56-0	Perthane			
82-68-8	Quintozene			
8001-50-1	Strobane			
297-78-9	Telodrin			
8001-35-2	Toxaphene			
1336-36-3 53469-21-9 and Various	Halogenated biphenyls, including Polychlorinated biphenyl (PCB)			
Various	Halogenated terphenols, including Polychlorinated terphenyl (PCT)			
Various	Halogenated naphthalenes			
Various	Halogenated diarylalkanes			
	Halogenated diphenyl methanes, including:			
99688-47-8	Monomethyl-dibromo-diphenyl methane			
81161-70-8	Monomethyl-dichloro-diphenyl methane			
76253-60-6	Monomethyl-tetrachloro-diphenyl methane			
87-86-5	Pentachlorophenol (PCP), its salts and compounds			
25167-83-3	Tetrachlorophenol (TeCP), its salts and compounds			
25167-83-3	Tetrachlorophenol (TeCP), its salts and compounds	Not Detected	GB/T 184141.1 or GB/T 18414.2 Detection Limit = 0.5 mg/kg	
935-95-5	2,3,5,6-TeCP			
115-29-7	Endosulfan and its isomers	Not Detected	In house method, Detection Limit = 0.5 mg/kg	
959-98-8				
33213-65-9				
36355-01-8	Hexabromobiphenyl	Not Detected	In house method, Detection Limit = 0.5 mg/kg	
63405-99-2	4,6-Dichloro-7 (2,4,5-trichloro-phenoxy) 0-2-trifluoro methyl benz-imidazole (DTTB)	≤ 30 ppm		

<sup>6</sup> As defined by US Environmental Protection Agency <http://www.epa.gov/pesticides/>

<b>Asbestos</b>				
CAS Number	Chemical Name/Color Index Name	CSC Restriction/Limit on Final Product or Tested Component	Test Method [detection limit]	Chemical Description/Where Chemical May be Found/Comments
77536-66-4	Actinolite	Not Detected	Microscopic examination; minimum magnification 1-250, attached; ratio of fiber length to diameter is at polarized light filter least 3:1	<p>Description: Asbestos is a naturally occurring group of fibrous silicate minerals. These thin, long, and flexible fibers can be woven into textiles. Asbestos fibers are strong, durable and fire resistant.</p> <p>Where it may be found: Unlikely to be found in current textiles except for fire-fighting clothing.</p> <p>Although we do not anticipate that Asbestos will be found in finished apparel and footwear, it is important to note that they are restricted.</p>
12172-73-5	Amosite			
77536-67-5	Anthrophyllite			
12001-29-5	Chrysotile			
12001-28-4	Crocidolite			
77536-68-6	Tremolite			

<b>Fluorinated Greenhouse Gases</b>				
CAS Number	Chemical Name/Color Index Name	CSC Restriction/Limit on Final Product or Tested Component	Test Method [detection limit]	Chemical Description/Where Chemical May be Found/Comments
2551-62-4	Sulfur hexafluoride – SF <sub>6</sub>	Prohibited	Headspace GC-MS for components [industry practice – not specified by the regulation]	<p>Description: Fluorocarbons are mainly used as substitutes for CFCs (Chlorofluorocarbons) and HFCs (Hydrofluorocarbons), both of which are ozone depleting substances that the 1987 Montreal Protocol has progressively phased out of production. Fluorocarbons are mostly used as refrigerants in refrigerators and air-conditioners and as propellants in industrial aerosols. Other applications include foam-blowing, solvent cleaning and textile coating.</p> <p>Textiles coated with fluorocarbons provide good resistance to weathering, UV light aging, chemical and soil resistance. Treated textiles also give good water-proof and anti-pilling effect.</p> <p>Where are they found: Coated textiles.</p>
	<b>Hydrofluorocarbons (HFCs):</b>			
75-46-7	HFC-23 – CHF <sub>3</sub>			
75-10-5	HFC-32 – CH <sub>2</sub> F <sub>2</sub>			
593-53-3	HFC-41 – CH <sub>3</sub> F			
138495-42-8	HFC-43-10mee – C <sub>5</sub> H <sub>2</sub> F <sub>10</sub>			
354-33-6	HFC-125 – C <sub>2</sub> H <sub>5</sub> F			
359-35-3	HFC-134 – C <sub>2</sub> H <sub>2</sub> F <sub>4</sub>			
811-97-2	HFC-134a – CH <sub>2</sub> FCF <sub>3</sub>			
75-37-6	HFC-152a – C <sub>2</sub> H <sub>4</sub> F <sub>2</sub>			
430-66-0	HFC-143 – C <sub>2</sub> H <sub>3</sub> F <sub>3</sub>			
420-46-2	HFC-143a – C <sub>2</sub> H <sub>3</sub> F <sub>3</sub>			
431-89-0	HFC-227ea – C <sub>3</sub> H <sub>7</sub> F <sub>7</sub>			
677-56-5	HFC-236cb – CH <sub>2</sub> FCF <sub>2</sub> CF <sub>3</sub>			
431-63-0	HFC-236ea – CHF <sub>2</sub> CHFCF <sub>3</sub>			
690-39-1	HFC-236fa – C <sub>3</sub> H <sub>2</sub> F <sub>6</sub>			
679-86-7	HFC-245ca – C <sub>3</sub> H <sub>3</sub> F <sub>5</sub>			
460-73-1	HFC-245fa – CHF <sub>2</sub> CH <sub>2</sub> CF <sub>3</sub>			
406-58-6	HFC-365mfc – CF <sub>3</sub> CH <sub>2</sub> CF <sub>2</sub> CH <sub>3</sub>			
353-36-6	HFC-161 – CH <sub>3</sub> -CH <sub>2</sub> -F			
624-72-6	HFC-152 – CH <sub>2</sub> FCH <sub>2</sub> -F			
	<b>Perfluorocarbons (PFCs):</b>			
75-73-0	Perfluoromethane – CF <sub>4</sub>			
76-16-4	Perfluoroethane – C <sub>2</sub> F <sub>6</sub>			
76-19-7	Perfluoropropane – C <sub>3</sub> F <sub>8</sub>			
355-25-9	Perfluorobutane – C <sub>4</sub> F <sub>10</sub>			
678-26-2	Perfluoropentane – C <sub>5</sub> F <sub>12</sub>			
355-42-0	Perfluorohexane – C <sub>6</sub> F <sub>14</sub>			
115-25-3	Perfluorocyclobutane – c-C <sub>4</sub> F <sub>8</sub>			

## Dioxins & Furans

CAS Number	Chemical Name/Color Index Name	CSC Restriction/Limit on Final Product or Tested Component	Test Method [detection limit]	Chemical Description/Where Chemical May be Found/Comments
1746-01-6 40321-76-4 51207-31-9 57117-31-4	Group 1) 2,3,7,8-Tetrachlorodibenzo-p-dioxin 1,2,3,7,8-Pentachlorodibenzo-p-dioxin 2,3,7,8-Tetrachlorodibenzofuran 2,3,4,7,8-Pentachlorodibenzofuran	Sum of Group 1: 1 µg/kg	US EPA 8290 - [industry practice – not specified by the regulation]	Description: Dioxins are a made up of 75 polychlorinated compounds called chlorinated dibenzo-p-dioxins. Each dioxin has a different level of toxicity based on its structure and tissue absorption qualities. Furans are also polychlorinated compounds (135 different furans exist). Dioxins and furans are structurally and toxically similar.  Where they may be found: Dioxins/furans are common by-products of incomplete combustion (burning) of organics in a chlorine rich environment and are often associated with the production of pesticides, PVC, and other similar chlorinated chemicals.  Although we do not anticipate Dioxins or Furans will be found in finished apparel and footwear, it is important to note that they are restricted.
39227-28-6 19408-74-3 57653-85-7 57117-41-6 70648-26-9 72918-21-9 57117-44-9 60851-34-5	Group 2) 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8-pentachlorodibenzofuran 1,2,3,4,7,8-Hexachlorodibenzofuran 1,2,3,7,8,9-Hexachlorodibenzofuran 1,2,3,6,7,8-Hexachlorodibenzofuran 2,3,4,6,7,8-Hexachlorodibenzofuran	Sum of Group 1 & 2: 5 µg/kg		
35822-46-9 3268-87-9 67562-39-4 55673-89-7 39001-02-0	Group 3) 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Heptachlorodibenzofuran 1,2,3,4,7,8,9-Heptachlorodibenzofuran 1,2,3,4,6,7,8,9-Octachlorodibenzofuran	Sum of Group 1, 2 & 3: 100 µg/kg		
50585-41-6 109333-34-8 67733-57-7 131166-92-2	Group 4) 2,3,7,8-Tetrabromodibenzo-p-dioxin 1,2,3,7,8-Pentabromodibenzo-p-dioxin 2,3,7,8-Tetrabromodibenzofuran 2,3,4,7,8-Pentabromodibenzofuran	Sum of Group 4: 1 µg/kg		
110999-44-5 110999-46-7 110999-45-6  107555-93-1	Group 5) 1,2,3,4,7,8-Hexabromodibenzo-p-dioxin 1,2,3,7,8,9-Hexabromodibenzo-p-dioxin 1,2,3,6,7,8-Hexabromodibenzo-p-dioxin  1,2,3,7,8-Pentabromodibenzofuran	Sum of Group 4 & 5: 5 µg/kg		

## Flame Retardants

CAS Number	Chemical Name/Color Index Name	CSC Restriction/Limit on Final Product or Tested Component	Test Method [detection limit]	Chemical Description/Where Chemical May be Found/Comments
85535-84-8	Chlorinated paraffins (C10-C13)	< 100 ppm	Solvent extraction and GC-MS or LC-MS [industry practice – not specified by the regulation]	Description: Flame retardants are chemical compounds that can be incorporated into textiles or applied by sprays to prevent burning.
59536-65-1	Polybrominated biphenyls (PBBs)	< 10 ppm	Methanol extraction: analysis by GC-MS or LC-MS [industry practice – not specified by the regulation]	Where they may be found: Children's clothing, tent fabrics, in PU coatings and leather.
40088-47-9	Tetrabromodiphenyl ether (TetraBDE)	< 10 ppm	Solvent extraction and analysis by GC-MS or LC-MS [industry practice – not specified by the regulation]	
32534-81-9	Penta-bromodiphenyl ether (pentaBDE)	< 10ppm	Solvent extraction and GC-MS or LC-MS [industry practice – not specified by the regulation]	Chlorinated paraffins (C10-C13) may also be present in leather and should not exceed 1% for fat liquoring of leather.
36483-60-0	Hexabromodiphenyl ether (HexaBDE)	< 10 ppm	Solvent extraction and GC-MS or LC-MS [industry practice – not specified by the regulation]	SCCP [detection limit 100ppm] Others [detection limit 5ppm]
68928-80-3	Heptabromodiphenyl ether (HeptaBDE)	< 10 ppm	Solvent extraction and GC-MS or LC-MS [industry practice – not specified by the regulation]	
32536-52-0	Octa-bromodiphenyl ether (octaBDE)	< 10 ppm	Solvent extraction and analysis by GC-MS or LC-MS [industry practice – not specified by the regulation]	
1163-19-5	Decabromodiphenyl ether (DecaBDE)	< 10 ppm	Solvent extraction and analysis by GC-MS or LC-MS [industry practice – not specified by the regulation]	
126-72-7	Tris (2,3-dibromopropyl) phosphate (TRIS)	< 10 ppm	Solvent extraction and analysis by GC-MS or LC-MS [industry practice – not specified by the regulation]	
5412-25-9	Bis (2,3-dibromopropyl) phosphate	< 10 ppm	Solvent extraction and analysis by GC-MS or LC-MS [industry practice – not specified by the regulation]	
545-55-1	Tris (1-aziridinyl)-phosphine oxide (TEPA)	< 10 ppm	KOH or NaOH digestion followed by GC-MS headspace analysis for ethyleneimine [industry practice – not specified by the regulation]	
115-96-8	Tris (2-chloroethyl) phosphate (TCEP)	< 10 ppm	Solvent extraction and analysis by GC-MS or LC-MS [industry practice – not specified by the regulation]	
13674-84-5	Tris (1-chloro-2-propyl) phosphate (TCPP)	< 10 ppm	Solvent extraction and analysis by GC-MS or LC-MS [industry practice – not specified by the regulation]	
13674-87-8	Tris (1,3-dichloro-2-propyl) phosphate (TDCPP)	< 10 ppm	Solvent extraction and analysis by GC-MS or LC-MS [industry practice – not specified by the regulation]	

### Extractable Heavy Metals in textile (Perspiration)

CAS Number	Chemical Name/Color Index Name	CSC Restriction/Limit on Final Product or Tested Component	Test Method [detection limit]	Chemical Description/Where Chemical May be Found/Comments
7440-36-0	Antimony, Sb	≤ 30.0 ppm	Migration in perspiration ISO 105 E04	Where it may be found: Antimony may be associated with synthetic fibers, accessories for textiles and clothing, paints, inks, trims, plastics, and metal components.
7440-38-2	Arsenic, As	≤ 0.2 ppm		Where it may be found: Arsenic may be associated with synthetic fibers, accessories for textiles and clothing, paints, inks, trims, plastics, and metal components.
7439-92-1	Lead, Pb	≤ 0.2 ppm		Where it may be found: In textiles and apparel, lead may be associated with plastics, paints, inks, pigments, and metal components.
7440-43-9	Cadmium, Cd	≤ 0.1 ppm		Description: Cadmium is a naturally occurring and abundant metal that does not easily corrode (rust). It is often used for pigments, metal coatings, plastics (as a heat stabilizer), photographic films and batteries.  Where it may be found: In textiles and apparel, cadmium may be associated with plastics, pigments (particularly red, orange, yellow, and green), and as a surface layer for metals.
7440-47-3	Chromium, Cr	≤ 1.0 ppm		Where it may be found: In textiles and apparel, chromium may be associated with plastics, pigments and tanned leather
18540-29-9	Chromium VI, Cr (VI)	Not detected (detection limit: 0.5 ppm)		Description: Chromium is a naturally occurring metal that can exist in three main forms (Chromium (0), Chromium (III), and Chromium (VI)). In nature, Cr (III) is the predominate form, Cr (0) and Cr (VI) do not occur in nature or are rare.  Where it may be found: In textiles and apparel, chromium may be associated with plastics, pigments and tanned leather
7440-48-4	Cobalt, Co	≤ 1.0 ppm		Where it may be found: Cobalt may be found in metal components, electroplated and enamel coated materials, batteries and pigments.
7440-50-8	Copper, Cu	≤ 25.0 ppm		Where it may be found: Cobalt may be found in metal components, electroplated and enamel coated materials, batteries and pigments.
7440-02-0	Nickel, Ni	≤ 1.0 ppm		Description: Nickel is an abundant metal often combined with other metals to create alloys with increased hardness and resistance to corrosion.  Where it may be found: In textiles and apparel, nickel may be associated with accessories for textiles and clothing, paints, inks, trims, plastics, and metal components.
7439-97-6	Mercury, Hg	≤ 0.02 ppm		Where it may be found: Mercury can be found as contaminants in some poor quality metal catalysts used in refining process

**Extractable Heavy Metals (Acidic solution, Children's product)**

CAS Number	Chemical Name/Color Index Name	CSC Restriction/Limit on Final Product or Tested Component	Test Method [detection limit]	Chemical Description/Where Chemical May be Found/Comments
7440-36-0	Antimony, Sb	≤ 60 ppm	Children's product only (≤ 14 years old)  Migration in acidic acid KS G ISO 8124-3	Where it may be found: Antimony may be associated with synthetic fibers, accessories for textiles and clothing, paints, inks, trims, plastics, and metal components.
7440-38-2	Arsenic, As	≤ 25 ppm		Where it may be found: Arsenic may be associated with synthetic fibers, accessories for textiles and clothing, paints, inks, trims, plastics, and metal components.
10022-31-08	Barium, Ba	≤ 1000 ppm		Where it may be found: Barium may be used as soldering alloy
7440-43-9	Cadmium, Cd	≤ 75 ppm		Description: Cadmium is a naturally occurring and abundant metal that does not easily corrode (rust). It is often used for pigments, metal coatings, plastics (as a heat stabilizer), photographic films and batteries.  Where it may be found: In textiles and apparel, cadmium may be associated with plastics, pigments (particularly red, orange, yellow, and green), and as a surface layer for metals.
7440-47-3	Chromium, Cr	≤ 60 ppm		Where it may be found: In textiles and apparel, chromium may be associated with plastics, pigments and tanned leather
7439-92-1	Lead, Pb	≤ 90 ppm		Where it may be found: In textiles and apparel, lead may be associated with plastics, paints, inks, pigments, and metal components.
7439-97-6	Mercury, Hg	≤ 60 ppm		Where it may be found: Mercury can be found as contaminants in some poor quality metal catalysts used in refining process
7782-492	Seleium, Se	≤ 500 ppm		Where it may be found: Small amounts of organoselenium compounds are used to modify the vulcanization catalysts used in the production of rubber

## Total and Released Metal Content

CAS Number	Chemical Name/Color Index Name	CSC Restriction/Limit on Final Product or Tested Component	Test Method [detection limit]	Chemical Description/Where Chemical May be Found/Comments
7439-92-1	Total Lead (Pb)	<p><u>Substrate:</u> &lt; 100 ppm</p> <p><u>Coating and Paints:</u> &lt; 90 ppm</p> <p><b>Limit applies to lead content and lead in substrates. CSC requires all products and materials to meet this standard, including non-children's products</b></p>	<p>Non metal: CPSC-CH-E1002-08.3 Metal: CPSC-CH-E1001-08.3 Coating: CPSC-CH-E1003-09.1</p> <p>(Detection Limit = 10 ppm)</p>	<p>Description: Lead is a naturally occurring metal important to the production of batteries, fuels, paints, plastics (as a heat stabilizer), ceramics, caulking, and solders.</p> <p>Where it may be found: In textiles and apparel, lead may be associated with plastics, paints, inks, pigments, and metal components.</p>
18540-29-9	Chromium (Cr <sup>6+</sup> )	Not Detected	<p>EN ISO 17075 or § 64 LFGB 82.02 – 11 (2008) [3 ppm]</p> <p>(Detection Limit = 3 ppm)</p>	<p>Description: Chromium is a naturally occurring metal that can exist in three main forms (Chromium (0), Chromium (III), and Chromium (VI)). In nature, Cr (III) is the predominate form, Cr (0) and Cr (VI) do not occur in nature or are rare.</p> <p>Where it may be found: In textiles and apparel, chromium may be associated with plastics, pigments and tanned leather.</p>
7440-43-9	Total Cadmium (Cd)	<50 ppm)	<p>Non metal: CPSC-CH-E1002-08.3 Metal: CPSC-CH-E1001-08.3 Coating: CPSC-CH-E1003-09.1</p> <p>(Detection Limit = 10 ppm)</p>	<p>Description: Cadmium is a naturally occurring and abundant metal that does not easily corrode (rust). It is often used for pigments, metal coatings, plastics (as a heat stabilizer), photographic films and batteries.</p> <p>Where it may be found: In textiles and apparel, cadmium may be associated with plastics, pigments (particularly red, orange, yellow, and green), and as a surface layer for metals.</p>
7440-02-0	Nickel Release (in metal items), Ni	<p>&lt; 0.5 µg/cm<sup>2</sup>/week</p> <p>&lt; 0.2 µg/cm<sup>2</sup>/week (Body pierced item)</p>	<p>Nickel release by EN 1811 (for Ni-coated/uncoated item/) EN 12472 + EN1811, (non-Ni coated/coated item)</p>	<p>Description: Nickel is an abundant metal often combined with other metals to create alloys with increased hardness and resistance to corrosion.</p> <p>Where it may be found: In textiles and apparel, nickel may be associated with accessories for textiles and clothing, paints, inks, trims, plastics, and metal components.</p> <p>Prolonged contact with the skin is defined as contact with the skin of nickel of potentially more than</p> <ul style="list-style-type: none"> <li>- 10 minutes on three or more occasions within two weeks, or</li> <li>- 30 minutes on one or more occasions within two weeks.</li> </ul>
7440-38-2	Total Arsenic, As	Children's product only (< 12 years old) < 40 ppm	QB/T 4340	Where it may be found: Arsenic may be associated with synthetic fibers, accessories for textiles and clothing, paints, inks, trims, plastics, and metal components.
7440-36-0	Total Antimony, Sb	Children's product only (< 12 years old) < 40 ppm	<p>Non metal: CPSC-CH-E1002-08.3 Metal: CPSC-CH-E1001-08.3 Coating: CPSC-CH-E1003-09.1</p> <p>(Detection Limit = 10 ppm)</p>	Where it may be found: Antimony may be associated with synthetic fibers, accessories for textiles and clothing, paints, inks, trims, plastics, and metal components.
7439-97-6	Total Mercury, Hg	Children's product only (< 12 years old) < 40 ppm	<p>Non metal: CPSC-CH-E1002-08.3 Metal: CPSC-CH-E1001-08.3 Coating: CPSC-CH-E1003-09.1</p> <p>(Detection Limit = 10 ppm)</p>	Where it may be found: Mercury can be found as contaminants in some poor quality metal catalysts used in refining process
7440-48-4	Cobalt, Co	Children's product only (< 12 years old) < 40 ppm	<p>Non metal: CPSC-CH-E1002-08.3 Metal: CPSC-CH-E1001-08.3 Coating: CPSC-CH-E1003-09.1</p> <p>(Detection Limit = 10 ppm)</p>	Where it may be found: Cobalt may be found in metal components, electroplated and enamel coated materials, batteries and pigments.

Miscellaneous

CAS Number	Chemical Name/Color Index Name	CSC Restriction/Limit on Final Product or Tested Component	Test Method [detection limit]	Chemical Description/Where Chemical May be Found/Comments
80-05-7	Bisphenol A (BPA) in water bottles, food contact surfaces	Not Detected	DCM/Acetone/ACN or THF/ACN/ACN: Water extraction, analysis by LC-MS [2mg/kg]	BPA is used in polycarbonate plastics and epoxy resins, commonly used in coating for food and beverage containers.
-	pH of textile or apparel finished goods	4.0-7.5	ISO 3071	Description: pH is a measure of alkalinity or acidity of a solution.
-	pH value (leather)	3.5-6.0	DIN EN ISO 4045	
624-49-7	Dimethyl Fumarate (DMFu)	< 0.1 mg/kg	ISO 16186  Detection limit = 0.1 mg/kg	Description: Dimethyl Fumarate (DMF) is a white crystalline powder used as a biocide to inhibit mold growth in consumer products. Where it may be found: DMF may be found in small packets added to footwear boxes to inhibit mold growth or in DMF impregnated leather or materials.
50-00-0	Formaldehyde	Non Children's product: < 75 ppm Children's product: Not detected	Textile: ISO 14184-1, JIS L1041 (Law 112) [detection limit is 16 mg/kg]  Leather / Fur: ISO 17226 [detection limit is 16 mg/kg]	Description: formaldehyde may be found in or formed from aldehyde tanning agents, oxidation of oils/fats, formaldehyde resin retannages, and preservatives in processing chemicals. Also see above. Where it may be found: In leather and leather processing chemicals.
2795-39-3 335-67-1	Perfluorooctane sulfonate (PFOS) and Pentadecafluorooctanoic acid (PFOA)	< 1 µg/m <sup>2</sup>  See Policy on DWR chemicals	Solvent Extraction LC-MS – (industry practice – not specified by the regulation)	Description: Perfluorooctanesulfonic acid Pentadecafluorooctanoic acid are organofluorine compounds. Salts of this compound are often used as surfactants. Like other fluorocarbons the C8F17 subunit in this compound repels water, PFOS and PFOA are the main ingredient in many stain repellent finishes. Where it may be found: Binder in non-woven fabrics to enhance dyeing, wetting agents to improve coverage and penetration of substances, achieve finish-on-yarn uniformity, and water resistance, oil resistant coatings on textiles, leather, and other materials.
87-86-5	Pentachlorophenol	Prohibited (< 0.05 ppm) each	Leather: ISO 17070	Description: PCP and Tetrachlorophenol are polychlorinated compounds used as a preservative to wood, leather, and textiles. Where it may be used: PCP and Tetrachlorophenol have been used as an antifungal in textiles, leather, and some wood products.
25167-83-3	Tetrachlorophenol		Textile: § 64 LFGB BVL B82.02.8, GC-ECD analysis Polyester / polyester-blend / printed fabric: Modified § 64 LFGB BVL B82.02.8 with alkaline digestion	
Not allocated Component 1: CAS-No.: 118685-33-9 C <sub>39</sub> H <sub>23</sub> ClCrN <sub>7</sub> O <sub>12</sub> S <sub>2</sub> Na Component 2: C <sub>46</sub> H <sub>30</sub> CrN <sub>10</sub> O <sub>20</sub> S <sub>2</sub> ·3Na	Blue Colorant	Prohibited	HPLC (Industry practice – not specified by regulation)	Description: A mixture of: disodium (6-(4-anisidino)-3-sulfonato-2-(3,5-dinitro-2-oxidophenylazo)-1-naphtholato)(1-(5-chloro-2-oxidophenylazo)-2-naphtholato)chromate(1-); trisodium bis(6-(4-anisidino)-3-sulfonato-2-(3,5-dinitro-2-oxidophenylazo)-1-naphtholato)chromate(1-) Where it may be found: Navy Blue or Blue colorant as a dye mixture used to dye fabric or leather.
33-80-345	Triclosan	Not Detected	Detection limit = 10 mg/kg	Description: Triclosan is mostly used as biocide. The fabrics finished with triclosan are treated with cross-linking agents to provide durable antibacterial properties  Where it may be used: Triclosan can be found in clothing and cosmetics

### Organotin Compounds

CAS Number	Chemical Name/Color Index Name	CSC Restriction/Limit on Final Product or Tested Component	Test Method [detection limit]	Chemical Description/Where Chemical May be Found/Comments
56573-85-4	Tributyltin (TBT)	< 0.5 ppm (each)	ISO/TS 16179	Description: Organotins are a class of chemicals combining tin and organics such as butyl and phenyl groups. Organotins are predominantly found in the environment as antifoulants in marine paints, but they can also be used as biocides (antibacterials), and/or heat stabilizers in plastics. These substances cannot be used in the EU as active biocidal substances.  Where they may be found: In textiles and apparel, organotins may be associated with plastics, inks, paints, and heat transfer material.
668-34-8	Triphenyltin (TPHT)			
1002-53-5	Dibutyltin (DBT)			
15231-44-4	Diocetyl tin (DOT)			

### Nitrosamine in Rubber

CAS Number	Chemical Name/Color Index Name	CSC Restriction/Limit on Final Product or Tested Component	Test Method [detection limit]	Chemical Description/Where Chemical May be Found/Comments
62-75-9	N-Nitrosodimethylamine	Not Detected	GB 30585 GB 25036	Nitrosamines are mostly deliberately added during the manufacture of natural and synthetic rubbers. They are used as a component of accelerators, antioxidants, and reinforcing agents to provide strength and elasticity in final product.  Nitrosamines can be generated in the rubber as secondary products from their precursor during the course of production and storage. It is a result from the reaction between precursors and various additives added in the step of vulcanization in rubber processing.
55-18-5	N-nitrosodiethylamine	Infant and children's Footwear only, < 14 years old with shoe size < 245 mm  Detection limit = 0.5 mg/kg		
621-64-7	N-nitrosodipropylamine			
924-16-3	N-nitrosodibutylamine			
100-75-4	N-nitrosopiperidine			
930-55-2	N-nitrosopyrrolidine			
59-89-2	N-nitrosomorpholine			
614-00-6	N-nitroso-N-methylaniline			
612-64-6	N-nitroso-N-ethylaniline			

**Polyvinylchloride (PVC)**

CAS Number	Chemical Name/Color Index Name	CSC Restriction/Limit on Final Product or Tested Component	Test Method [detection limit]	Chemical Description/Where Chemical May be Found/Comments
9002-86-2	Polyvinylchloride (PVC)	*See comment	Beilstein's burn test for presence of chlorine and Infrared (IR) spectroscopy with or without solvent extraction.	<p>*Columbia has eliminated the use of PVC from most products due to high risk of restricted substances such as lead, phthalates, and cadmium and discourages its use except in rare circumstances. If a supplier is asked to use PVC, production and testing processes must be reviewed by and approved by CSC Product Safety to ensure the product complies with the RSL.</p> <p>Description: PVC (also known as vinyl) is a chlorinated polymer used extensively. Vinyl products include credit cards, furniture, toys, flooring, cable/wire insulation, garden hoses, and coats.</p>
75-01-4	Vinyl Chloride Monomer Content	≤ 5 mg/kg	GB 21550, GB/T 4615	
7439-92-1 7440-43-9	Heavy metal analysis - Soluble lead - Soluble Cadmium	Soluble lead ≤ 90 mg/kg Soluble cadmium ≤ 75 mg/kg	GB 21550	
-	Other Volatile Matter	≤ 20 g/m <sup>2</sup>	GB 21550	

## Phthalates

CAS Number	Chemical Name/Color Index Name	CSC Restriction/Limit on Final Product or Tested Component	Test Method [detection limit]	Chemical Description/Where Chemical May be Found/Comments
71888-89-6	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	All homogeneous materials < 0.1% (each plasticized material)	CPSC-CH-C1001-09.3 – Standard Operating Procedure for Determination of Phthalate	CSC restricts the use of Phthalates in all products including screen printed items.  Description: Phthalates are a class of organic compounds added to plastics to increase flexibility.  Where they may be found: In textiles and apparel, phthalates may be associated with flexible plastic components, trims and screen prints.
68515-42-4	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP)	Materials used in Children’s product (≤14 years): < 0.1% (each) and DEHP, BBP, DBP, DINP, DNOP, DIDP ≤ 0.1 % (total)		
85-68-7	Benzyl butyl phthalate (BBP)			
117-81-7	Bis(2-ethylhexyl)phthalate (DEHP)			
117-82-8	Bis(2-methoxyethyl) phthalate (DMEP)			
84-74-2	Dibutyl phthalate (DBP)			
84-69-5	Diisobutyl phthalate (DIBP)			
84777-06-0	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear (DniPP)			
605-50-5	Diisopentylphthalate (DIPP)			
776297-69-9	N-Pentyl-isopentylphthalate (NpiPP)			
131-18-0	Dipentyl phthalate (DPP)			
84-75-3	Di-n-hexyl phthalate (DnHP)			
26761-40-0	Di-isodecyl phthalate (DIDP)			
28553-12-0	Di-isononyl 25ththalate (DINP)			
117-84-0	Di-n-octyl-phthalate (DNOP)			

**Polycyclic Aromatic Hydrocarbons (PAHs)**

CAS Number	Chemical Name/Color Index Name	CSC Restriction/Limit on Final Product or Tested Component	Test Method [detection limit]	Chemical Description/Where Chemical May be Found/Comments
83-32-9	Acenaphthene	Skin Contacted Components: *≤ 1mg/kg (each) < 10 mg/kg (sum of all PAHs)  Childcare articles: *≤ 0.5mg/kg (each) < 10 mg/kg (sum of all PAHs)  Non Skin Contact Components: < 50 mg/kg (sum of all PAHs)	AfPS GS 2014:01 PAK	Polymer (EVA, TPU, rubber, sole, foam, latex, thermo soles, etc.)  Where they may be found: Polymer (EVA, TPU, rubber, sole, foam, latex, thermo soles, etc.) and various lacquer / coating
208-96-8	Acenaphthylene			
120-12-7	Anthracene			
56-55-3	Benzo[a]anthracene *			
50-32-8	Benzo[a]pyrene (BaP) *			
205-99-2	Benzo[b]fluoranthene *			
191-24-2	Benzo[ghi]perylene			
207-08-9	Benzo[k]fluoranthene *			
218-01-9	Chrysene *			
53-70-3	Dibenz[a,h]anthracene *			
206-44-0	Fluoranthene			
86-73-7	Fluorene			
193-39-5	Indeno[1,2,3-cd]pyrene			
91-20-3	Naphthalene			
85-01-8	Phenanthrene			
129-00-0	Pyrene			
192-97-2	Benzo[e]pyrene *			
205-82-3	Benzo[j]fluoranthene *			

## Packaging Restrictions

Suppliers of packaging and packaging components shall comply with the Coalition of Northeastern Governors (CONEG) Toxic in Packaging Legislation adopted by several US states, the EU Directive 94/62/EC on packaging and packaging waste, and the heavy metal requirements in the table below. Packaging is defined as any container providing a means of marketing, protection or handling of a product and shall include a unit package, an intermediate package and a shipping carton. Non-returnable items used for the same purposes shall also be considered to constitute packaging. It shall include unsealed receptacles such as carrying cases, crates, cups, pails, rigid foil and other trays, wrappers and wrapping films, bags and tubs.

Packaging component means any individual assembled part of a package such as, but not limited to, any interior or exterior blocking, bracing, cushioning, weatherproofing, exterior strapping, coatings, closures, inks and labels.

<i>Heavy Metals in packaging material</i>				
CAS Number	Chemical Name/Color Index Name	CSC Restriction/Limit on Final Product or Tested Component	Test Method [detection limit]	Chemical Description/Where Chemical May be Found/Comments
7439-92-1	Lead, Pb	Sum of Heavy Metals < 100 ppm	Acid digestion with ICP (Detection limit = 5 ppm each metal)	-
7440-43-9	Cadmium, Cd			
18540-29-9	Chromium VI, Cr (VI)			
7439-97-6	Mercury, Hg			

## Manufacturing Restricted Substances List (MRSL)

The purpose of the Manufacturing RSL (MRSL) is to limit the use of toxic chemicals that can be harmful to consumers, the environment and workers who may be exposed during manufacturing processes. The MRSL applies to chemicals used in finished product manufacturing processes in CSC contracted supplier facilities. Finished product suppliers must check all chemical inventories and each chemical purchase order to assure none of the listed chemicals are intentionally used in the manufacturing of products. Suppliers must ensure substitute chemical alternatives do not adversely impact product appearance or intended performance.

<i>Restriction of Substances Used in Manufacturing</i>				
CAS Number	Chemical Name/Color Index Name	CSC Restriction/Limit on Chemical or Tested Component	Test Method [detection limit]	Chemical Description/Where Chemical May be Found/Comments
68-12-2	Dimethyl Formamide (DMF)	May not be used	Solvent extraction, GC-MS analysis [5ppm]	Solvent , Cleanser
50-00-0	Formaldehyde	May not be used	Solvent extraction, GC-MS analysis [5ppm]	Solvent, Cleanser, wrinkle free resin
75-09-2	Dichloromethane	May not be used	Solvent extraction, GC-MS analysis [5ppm]	Solvent, Cleanser
108-95-2	Phenol	May not be used	Solvent extraction, GC-MS analysis [5ppm]	Solvent in primers, adhesives and resin for nylon and plastic
127-18-4	Tetrachloroethylene	May not be used	Solvent extraction, GC-MS analysis [5ppm]	Solvent, Cleanser
108-88-3	Toluene	May not be used	Solvent extraction, GC-MS analysis [5ppm]	Solvent in primers, adhesives, paints and inks
1330-20-7	Xylene	May not be used	Solvent extraction, GC-MS analysis [5ppm]	Solvent in primers, adhesives, paints and inks
67-66-3	Trichloromethane	May not be used	Solvent extraction, GC-MS analysis [5ppm]	Solvent, Cleanser
110-54-3	n-hexane	May not be used	Solvent extraction, GC-MS analysis [5ppm]	Solvent, Cleanser
71-43-2	Benzene	May not be used	Solvent extraction, GC-MS analysis [5ppm]	Solvent, Cleanser

## Electrical and Electronic Equipment (EEE) Policy

The Columbia Sportswear Company Electrical and Electronic Equipment (EEE) policy applies to any equipment which is dependent on electric currents or electromagnetic fields in order to work properly and equipment designed for generation, transfer and measurement of such currents and fields with a voltage rating not exceeding 1000 Volt AC and 1500 Volt DC<sup>7</sup>.

- Suppliers are responsible for identifying and adhering to all applicable global EEE compliance and product safety standards.
- If EEE is a component of a consumer product, all other parts of the product must meet the RSL requirements above.
- All EEE batteries used in CSC products must be easily removable by the user and comply with the EU battery directive.
- EEE batteries, accumulators and battery packs must be marked with the crossed-out wheeled bin symbol shown below and comply with Waste Electrical and Electronic Equipment (WEEE) EU Directive 2002/96/EC:



- Suppliers are responsible for all EEE product compliance testing and conformity assessments to satisfy all applicable regulatory requirements.
- Suppliers must retain all technical documents, declarations of conformity and documentation to demonstrate compliance for 10 years after the EEE is sold or transferred to CSC.
- CSC reserves the right to review all EEE records and will consider any product without associated compliance documents to be in violation of this policy.
- All EEE must comply with Directive 2011/65/EC (RoHS) and meet the chemical limits listed below.

<sup>7</sup> Directive 2011/65/EU of the European Parliament and of the Council on the Restriction of the use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS).

### Substances in Electrical and Electronic Equipment<sup>8</sup>

CAS Number	Chemical Name/Color Index Name	CSC Restriction/Limit on Homogeneous Material	Test Method [detection limit]	Comments
7440-43-9	Cadmium	100 mg/kg	IEC 62321:2008 Clause 8,9,10 ICP-OES, ICP-MS and AAS	-
7439-92-1	Lead	1000 mg/kg	IEC 62321:2008 Clause 8,9,10 ICP-OES, ICP-MS and AAS	-
7439-97-6	Mercury	1000 mg/kg	IEC 62321:2008 Clause 7 CV-AAS, CVAFS, ICP-OES and ICP-MS	-
18540-29-9	Chromium (Cr6+) Cr(VI)	1000 mg/kg	IEC 62321:2008 Annex B and C	-
-	Polybrominated diphenyl ethers (PBDE) and Polybrominated biphenyls (PBB)	1000 mg/kg	IEC 62321 Annex A, GC-MS	-

### Metals in Batteries

CAS Number	Chemical Name/Color Index Name	CSC Restriction/Limit on Final Product or Tested Component	Test Method [detection limit]	Comments
7440-43-9	Cadmium	5 mg/kg	EDXRF, ICP-OES ICP-OES, ICP-MS, AAS	-
7439-92-1	Lead	40 mg/kg	EDXRF, ICP-OES ICP-OES, ICP-MS, AAS	-
7439-97-6	Mercury	5 mg/kg	ICP, AAS, EDXRF ICP-OES, ICP-MS, CVAAS	-

## Conflict Minerals

Conflict minerals are minerals derived from ore mined under conditions of armed conflict and human rights abuses particularly in the eastern provinces of the Democratic Republic of the Congo. CSC expects all Suppliers to avoid use of “conflict minerals” which may directly or indirectly finance or benefit armed groups in the Democratic Republic of the Congo or adjoining countries. Suppliers are expected to maintain records on the source and chain of custody for all materials used in the manufacturing of CSC products and may be required to conduct due diligence audits of the supply chain in compliance with the Conflict Minerals provisions of the Dodd-Frank Wall Street Reform and Consumer Protection Act.

CSC Conflict Mineral policy can be found at : [http://www.columbia.com/About-Us\\_Corporate-Responsibility\\_Social-Responsibility.html](http://www.columbia.com/About-Us_Corporate-Responsibility_Social-Responsibility.html)

<sup>8</sup> Restricted substances limits in EEE refer to each individual homogeneous material  
Columbia Sportswear Company RSL and Product Safety Manual – July 2015 Version

## Policy on Textiles, Fibers and Skins Derived from Animals

- Upon request suppliers must provide source documentation for any material supplied to CSC.
- Products must not be manufactured with or contain materials from any species of plant or animal identified as endangered or threatened according to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).
- Products must not be manufactured with or contain dog and cat Fur, and must comply with 19 U.S. Code § 1308 - Prohibition on importation of dog and cat fur products.
- Leather may not be sourced from illegally deforested areas in the Amazon biome. Upon request, suppliers must provide material source documentation and certification stating that they have policies and compliance practices in place to prohibit and prevent purchase of rawhides from cattle raised in the Amazon basin.
- No products may contain mulesed wool.
- No products or materials sold or transferred to CSC may contain down or feather material obtained from sources using “live-plucking” or engaged in forced feeding practices. CSC may require suppliers to certify they do not obtain “live-plucked” material or material from sources engaged in force feeding practices in CSC products.

## Policy on Nanotechnology

‘Nanomaterial’ means a natural, incidental or manufactured material containing very small particles, in an unbound state or as an aggregate or as an agglomerate and where, for 50% or more of the particles in the number size distribution, one or more external dimensions is in the size range 1 nm-100 nm.

Workers handling nanomaterials in production processes may be exposed to nanoparticles through inhalation, dermal contact, or ingestion.

CSC discourages the use of nanomaterials in CSC products except in rare circumstances. If a supplier is asked to use nanomaterial such as in UV blocking, flame retardants, or antimicrobial finishing, production processes must be reviewed by CSC Product Safety. Also refer to CSC – Supplier’s Environmental, Health and Safety Handbook for handling requirements.

Supplier must provide below information, when relevant:

1. Intended use, function and purpose of the nanomaterial and information regarding any material or end product in which it will be used;
2. Manufacturing methods;

3. Characteristics, physical and chemical properties of the nanomaterial such as:
  - composition,
  - identity,
  - purity,
  - morphology,
  - structural integrity,
  - catalytic or photo-catalytic activity,
  - particle size/size distribution,
  - electrical/mechanical/optical properties,
  - surface-to-volume ratio,
  - chemical reactivity,
  - surface area/chemistry/charge/structure/shape,
  - water solubility/dispersibility,
  - agglomeration/aggregation (or other properties), and
  - descriptions of the methods used to assign these determinations;
4. Toxicological, eco-toxicological, metabolism and environmental fate data that may be both generic and specific to the nanomaterial if applicable; and,
5. Risk assessment and risk management strategies, if considered or implemented.

## Policy on Durable Water Repellant Chemical

CSC has phased out Long Chain Perfluorinated Compounds (LCPFCs)\* including PFOA and PFOS (<1µg/m<sup>3</sup>), from all of our products. All suppliers must use Short Chain Perfluorinated Compounds (SCPFCs) as the durable water repellant (DWR) finishing on the external shell fabrics and water proof breathable membranes, such as C6 or C4 DWR chemicals.

CSC Position Statement regarding effort to reduce and eliminate fluorochemicals (PFOS and PFOA):

[http://demandware.edgesuite.net/aasn\\_prd/on/demandware.static/Sites-Columbia\\_US-Site/Sites-Columbia\\_US-Library/en\\_US/dw2db4e409/AboutUs/PDF/COLM%20PFOA-PFOS%20Statement%20Draft%205-21-15.pdf](http://demandware.edgesuite.net/aasn_prd/on/demandware.static/Sites-Columbia_US-Site/Sites-Columbia_US-Library/en_US/dw2db4e409/AboutUs/PDF/COLM%20PFOA-PFOS%20Statement%20Draft%205-21-15.pdf)

\*Definition of Long Chain Perfluorinated Compounds :

- Perfluorocarboxylic acids with carbon chain lengths C8 and higher, including perfluorooctanoic acid (PFOA);
- Perfluoroalkyl sulfonates with carbon chain lengths C6 and higher, including perfluorohexane sulfonic acid (PFHxS) and perfluorooctane sulfonate (PFOS); and
- Precursors of these substances that may be produced or present in products.

## RSL and Product Safety Testing Procedure

### RSL Testing Guideline

The following table provides testing guidance for suppliers in developing their own RSL compliance testing and chemical management programs and is used as a basis for CSC routine and random RSL testing programs. Suppliers must restrict the use of all chemicals listed in the RSL regardless of whether testing is required. The substances listed in the table represent a selection of high risk chemicals commonly found by material type. Mandatory testing is indicated by (●) and Supplementary testing is indicated by (○).

Materials	Textile		Leather		Metal	Polymers	Packaging material	If any coating or finishing on top, please apply below in extra		
	Natural	Synthetic / Blend	Natural	PU Coated / PU				Coating / Ink / Printing	DWR <sup>12</sup>	Flame retardant
Azo Dyes <sup>6,8,10</sup>	●	●	●	●						
Carcinogenic dye <sup>6,8,10</sup>	●	●								
Disperse Dyes <sup>6,8,10</sup>		●								
Alkyl Phenols <sup>8,9</sup>	○	○	○	○		○		○		
Alkylphenol Ethoxylates <sup>8,9</sup>	●	●	●	●		○		○		
Total Cadmium <sup>8,10</sup>				○	○	●		○		
Total Lead <sup>7,8,10</sup>			○	○	●	●		●		
Chromium (VI) <sup>10</sup>			●	●						
Phthalates <sup>8,9</sup>				○		● (trims only)		● (if plastic print)		
Nickel Release <sup>9</sup>					●					
Organotin <sup>10</sup>			○	○		● (trims only)		○		
PAHs (Footwear only) <sup>10</sup>						●				
PFOS and PFOA <sup>9</sup>									●	
Formaldehyde <sup>8,9</sup>	●	●	●	●						
Packaging Heavy Metals <sup>8,10</sup>							●			
TECP and TDCPP <sup>8,9,12</sup>										●

<sup>6</sup>Only colored materials require azo dye, Allergenic dye and disperse dye testing, uncolored white materials are exempt.

<sup>7</sup>Additional lead testing may be required for materials used in children's products according to CPSIA.

<sup>8</sup>All testing shall be done in composite of 3 in 1 test, including total cadmium whose detection limit is 10 ppm and PAHs (footwear only)

<sup>9</sup>Testing shall be done per material

<sup>10</sup>Testing shall be done per color per material

<sup>11</sup> Polymer example: EVA, PU form, TPU, TPR, Rubber, Nylon, TPE, latex, PU coating

<sup>12</sup> TECP = Tris (2-chloroethyl) phosphate ; TDCPP = Tris (1,3-dichloro-2-propyl) phosphate ; DWR = Durable Water Repellant

## Testing Requirement

Testing may be required at any time to demonstrate compliance with the RSL. Testing may be part of a routine or random testing program and must be conducted at the supplier's expense. Testing must be done by a CSC-approved laboratory, see *Columbia Approved RSL Testing Laboratories* section of this manual. Where the supplier controls the selection and sourcing of materials or components, they are responsible for demonstrating compliance and testing upon request.

CSC may conduct additional random testing throughout the supply chain. Results from random testing supersede all previous test results. Suppliers will be held responsible for any material or product that fails to meet the standards of the RSL.

All children's products must comply with the US Consumer Product Safety Improvement Act (CPSIA) and relevant global requirements. Children's products may require additional testing.

## Sampling and Test Request Procedures

1. According to the testing guideline above or at CSC's request, sample materials and/or finished goods for testing. Samples should be taken from the first production lot unless otherwise specified.
2. All sample materials and finished goods used for testing must be representative in all respects, of those used or intended to be used in production of CSC products. If there any finished good finishing such as garment wash or garment dye, suppliers shall make sure the submitted sample is tested after finishing.
3. Composite testing of up to 3 colors of the same material may be acceptable for certain test items. If needed, consult a CSC-approved laboratory for sample quantities and composite instructions.
4. Complete a CSC RSL Test Request Form (TRF) making sure to include all required information.
5. Submit TRF and required samples to a CSC approved 3<sup>rd</sup> party laboratory for testing.
6. Please advise testing laboratories they are required to report test results directly to the CSC Liaison Office originating the test request and to [RSL@columbia.com](mailto:RSL@columbia.com). All test reports must be in English.
7. If any test results in a failure, production must be stopped; all suspect products must be put on hold. **Non-conforming product must not be shipped.**
  - a. Suppliers are required to fill in the RSL Failure Remediation Form and immediately contact the appropriate CSC contact for further action. CSC will work with the supplier to determine corrective action which may include canceling the order.
  - b. Retesting may be required as directed by CSC.
8. Testing records must be kept by the supplier for a minimum of 5 years.

## Glossary of Terms/Acronyms

**AAS**—Atomic Absorption Spectroscopy

**Accredited 3<sup>rd</sup> Party Testing Laboratory**—for the purpose of this manual refers to a laboratory accredited by Consumer Product Safety Commission (see: <https://www.cpsc.gov/cgi-bin/LabSearch/>)

**BS**—British Standard

**CAS**—Chemical Abstracts Service, CAS Registry Numbers are unique identifiers for chemical substances. CAS is a division of the American Chemical Society. See [www.cas.org](http://www.cas.org).

**CEN**—European Committee for Standardization

**CPSC**—Consumer Product Safety Commission (U.S.)

**Detection limit**—the lowest quantity of a substance that can be distinguished from the absence of that substance (a blank value) within a stated confidence limit

**DIN**—German Standards Institute (Deutsches Institut für Normung )

**Dioxins and Furans**—Chemical compounds that are an undesirable by-product in the manufacture of herbicides, disinfectants, and other agents

**DWR** – Durable Water Repellant

**EEC**—European Economic Community

**EEE**—Electrical and Electronic Equipment

**EN**—European Norm

**EPA**—Environmental Protection Agency (U.S.)

**EU**—European Union

**EDXRF**—energy dispersive X-ray fluorescence

**FTIR**—Fourier transform infrared spectroscopy

**GB**—Guo Biao in Chinese which means National Standards

**GC-MS**—Gas Chromatography/Mass Spectrometer - instrument used to identify components of mixtures or unknown substances - liquids, gases.

**HPLC**—High performance liquid chromatography

**ICP-OES**—inductively coupled plasma optical emission spectrometry

**ISO**—International Standards Organization

**JIS**—Japanese Industrial Standard

**KOH**—Potassium Hydroxide

**LFGB**—Lebensmittel-, Bedarfsgegenstände- und Futtermittelgesetzbuch – German Law Book on food, consumer article and feed.

**LC-MS**—Liquid Chromatography/Mass Spectrometer - instrument used to identify components of mixtures or unknown substances - liquids, gases.

**mg/L**—milligram per liter.

**mg/kg**—milligram per kilogram.

**MSDS Information**—Material Safety Data Sheet Information – this is chemical safety & toxicological information supplied with chemicals

**NaOH**—Sodium Hydroxide

**Percent by Mass**—also called weight percent or percent by weight, this is the mass of the solute divided by the total mass of the solution and multiplied by 100% (also see ppm)

**Pesticide**—Chemical agent or substance used for destroying pests

**ppm**—Parts Per Million. A unit describing concentrations of chemical substances. 1 ppm can also be notated as 1 milligram per kilogram (mg/kg), 1 microgram per gram (µg/g) or as a percent where,  $X_{(ppm)} = X_{(%)}$  × 10000.

**ppb**—Parts per Billion. A unit describing concentrations of chemical substances. 1 ppb can also be notated as 1 microgram per kilogram (µg/kg).

**PVC**—Polyvinyl Chloride

**Solvent**—A substance in which another substance is dissolved, forming a solution.

**UK**—United Kingdom

**µg/cm<sup>2</sup>/week**—microgram per square centimeter per week

**µg/g**—microgram per gram

**µg/kg**—microgram per kilogram

**µg/m<sup>2</sup>**—microgram per square meter

## Columbia Approved RSL Testing Laboratories

Location	Contact	Phone	Email
Intertek Global Account Manager - USA	Subhash Appidi 2321 Rosecrans Avenue, Suite 3210, El Segundo, CA 90245, USA	+1.310.364.3789 Mobile: +1.612.594.1269	<a href="mailto:subhash.appidi@intertek.com">subhash.appidi@intertek.com</a>
	Shirley Luo 2321 Rosecrans Avenue, Suite 3210 El Segundo, CA, 90245, USA	+1.310.364.3780 Mobile: +1.310.343.5429	<a href="mailto:shirley.luo@intertek.com">shirley.luo@intertek.com</a>
Intertek Global Technical Manager - RSL	Vicky Au 2 <sup>nd</sup> Floor, Garment Centre, 576 Castle Peak Road, Kowloon, Hong Kong, Chin	+852 2173 8253	<a href="mailto:vicky.au@intertek.com">vicky.au@intertek.com</a>
Intertek Global GB Technical Support - USA	Megan Liu 22887 NE Townsend Way, Fairview, OR 97024, USA	+1 224 520 3114	<a href="mailto:megan.liu@intertek.com">megan.liu@intertek.com</a>
Intertek Global GB Technical Support - Asia	Clara Zhu 2/F, Building No.4, Shanghai Comalong Industrial Park, 889 Yi Shan Road, Shanghai 200233, China	+86 21 6091 7083	<a href="mailto:clara.zhu@intertek.com">clara.zhu@intertek.com</a>
Intertek USA	Kathleen DeVito 545 E. Algonquin Road, Suite F, Arlington Heights, IL 60005, USA	+1 847 871 1052	<a href="mailto:kathleen.devito@intertek.com">kathleen.devito@intertek.com</a>
Intertek Latin America	Jose Manuel de la Vega 46 calle 21-53 zona 12, Expobodegas Petapa 46, Ofibodega #10, Guatemala City, Guatemala	+502 2201 7064	<a href="mailto:jose.delavega@intertek.com">jose.delavega@intertek.com</a>
	Rodrigo Ovando 46 calle 21-53 zona 12, Expobodegas Petapa 46, Ofibodega #10, Guatemala City, Guatemala	+502 2201 7101	<a href="mailto:rodrigo.ovando@intertek.com">rodrigo.ovando@intertek.com</a>

Intertek Guangzhou, China	Hanwei Li (Footwear)  E201, No.7-2, Caipin Road, Guangzhou Science City – GETDD, Guangzhou 510663, China	+86 20 8213 9030	<a href="mailto:hanwei.li@intertek.com">hanwei.li@intertek.com</a>
	Shimma Lee (Textile) 3/F., Hengyun Building, 235 Kaifa Ave, Guangzhou Economic & Technological Development District, Guangzhou 510730, China	+86 20 2820 9447	<a href="mailto:shimma.lee@intertek.com">shimma.lee@intertek.com</a>
Intertek Hong Kong, China	Margaret Sung 2 <sup>nd</sup> Floor, Garment Centre, 576 Castle Peak Road, Kowloon, Hong Kong, China	+852 2173 8369	<a href="mailto:margaret.sung@intertek.com">margaret.sung@intertek.com</a>
Intertek Shanghai, China	Zoey Gu (Textile) 2/F, Building No. 4, Shanghai Comalong Technology Service Park, No. 889 Yi Shan Road, Shanghai 200233, China	+86 21 6091 7349	<a href="mailto:zoey.gu@intertek.com">zoey.gu@intertek.com</a>
	Even Jiang (GB Testing) 2/F, Building No. 4, Shanghai Comalong Technology Service Park, No. 889 Yi Shan Road, Shanghai 200233, China	+86 21 6091 7020	<a href="mailto:even.jiang@intertek.com">even.jiang@intertek.com</a>
Intertek Taiwan	Zoe Weng 8 <sup>th</sup> Floor, No. 423, Ruiguang Road, Neihu District, Taipei City 114 Taiwan, ROC	+886 2 6602 2888 Ext: 623	<a href="mailto:zoe.weng@intertek.com">zoe.weng@intertek.com</a>
Intertek Vietnam	Nga Tran 3rd & 4th Floor , Au Viet Building, No. 01 Le Duc Tho Street, Mai Dich Ward, Cau Giay District, Hanoi, Vietnam	+84 4 37337094 Ext: 152	<a href="mailto:nga.tran@intertek.com">nga.tran@intertek.com</a>
	Thanh Dang 1 <sup>st</sup> Floor, Etown EW Building, 364 Cong Hoa St., Ward 13, Tan Binh Dist., Ho Chi Minh City, Vietnam	+84 86 2971099 Ext: 135	<a href="mailto:thanh.dang@intertek.com">thanh.dang@intertek.com</a>

Intertek Bangkok, Thailand	Onanong Bunsing 5/1 Soi Chaloem suk, Chankasem, Chatuchak Bangkok 10900 Thailand	+662 939 0661 Ext: 877	onanong.bunsing@intertek.com
Intertek Tirupur, India	Alaguraj A 501, Opp. LRG College, Palladam Road, Thennampalayam, Tirupur 641604, Tamil Nadu, India	+91 421 4306729	alaguraj.a@intertek.com
	Arasu Ma 501, Opp. LRG College, Palladam Road, Thennampalayam, Tirupur 641604, Tamil Nadu, India	+91 421 4306627	<a href="mailto:arasu.ma@intertek.com">arasu.ma@intertek.com</a>
Intertek Mumbai, India	Indira Devadiga Akruti Corporate Park, G3 Ground Floor, L.B.S Marg, Kanjurmarg (West), Mumbai 400079, Maharashtra, India	+91 22 67976931	<a href="mailto:indira.devadiga@intertek.com">indira.devadiga@intertek.com</a>
Intertek Bangalore, India	Aatheeswaran S 17/F, Industrial Suburb, 2nd stage, Industrial Area , Yeswanthpur, Bangalore 560022, Karnataka, India	+91 80 4021 3812	aatheeswaran.s@intertek.com
	Dinesh Subbiah 17/F, Industrial Suburb, 2nd stage, Industrial Area , Yeswanthpur, Bangalore 560022, Karnataka, India	+91 80 4021 3710	<a href="mailto:dinesh.subbiah@intertek.com">dinesh.subbiah@intertek.com</a>

Intertek Gurgaon, India	Govind Kumar Jha 290, Udyog Vihar, Ph-II, Gurgaon 122016, Haryana, India	+91 124 450 3400	<a href="mailto:govind.kumar@intertek.com">govind.kumar@intertek.com</a>
	Sunil Gupta 290, Udyog Vihar, Ph-II, Gurgaon 122016, Haryana, India	+91 124 450 3414	<a href="mailto:sunil.gupta@intertek.com">sunil.gupta@intertek.com</a>
Intertek Indonesia	Made Widayani Citrabuana Indoloka Building, Jl. Cikini IV No. 2, Jakarta 10330, Indonesia	+62 21 391 8584	<a href="mailto:made.widayani@intertek.com">made.widayani@intertek.com</a>
Intertek Singapore	Wong Lai Yee 5 Pereira Road, #06-01, Asiawide Industrial Building, Singapore 368025	+65 6381 0631	<a href="mailto:laiyee.wong@intertek.com">laiyee.wong@intertek.com</a>
Intertek Korea	Melanie Kim 1/F, A-Ju Digital Tower, 284-56 Seongsu-2Ga, Seongdong-Gu Seoul Korea 133-833	+82 2 6090 9507	<a href="mailto:melanie.kim@intertek.com">melanie.kim@intertek.com</a>
Intertek Bangladesh	Afzal Hussain Phoenix Tower, 2nd & 3rd Floor, 407, Tejgaon Industrial Area, Dhaka, Bangladesh	+88 02 8156226 – 28	<a href="mailto:afzal.hussain@intertek.com">afzal.hussain@intertek.com</a>
Intertek Pakistan	Umair Ali Siddiqui First Floor, E-6, Attara Tower, Block 7 -8, KCHS, Karachi 75700, Pakistan	+92 21 32590163	<a href="mailto:CSTex1.Pak@intertek.com">CSTex1.Pak@intertek.com</a>
	Imran Javed First Floor, E-6, Attara Tower, Block 7 -8, KCHS, Karachi 75700, Pakistan	+92 21 32590154-58	<a href="mailto:imran.javed@intertek.com">imran.javed@intertek.com</a>

## Columbia Sportswear Company RSL Contact Information

If you have any questions about the Columbia Sportswear Company RSL please refer to the regional contacts listed below.

Location	Contact	Phone	Email
<b>Portland Headquarters</b>	Borg Norum	(503) 985-4000	<a href="mailto:bnorum@columbia.com">bnorum@columbia.com</a>
<b>Hong Kong, China</b>	Wendy Kan	852 27638975	<a href="mailto:wkan@columbia.com">wkan@columbia.com</a>
<b>Shanghai, China</b>	Johnson Ge	86-21-32512308	<a href="mailto:jge@columbia.com">jge@columbia.com</a>
<b>Footwear – Zhuhai, China</b>	George Wei	86 756 322 5473	<a href="mailto:gwei@columbia.com">gwei@columbia.com</a>
<b>Footwear – Zhuhai, China</b>	Shirley Lei	86 756 322 4637	<a href="mailto:slei@columbia.com">slei@columbia.com</a>
<b>India</b>	Bhat Venkat Ramana	91 8042772746	<a href="mailto:vbhat@columbia.com">vbhat@columbia.com</a>
<b>Indonesia</b>	Ken Lai	62 21 798 5915	<a href="mailto:klai@columbia.com">klai@columbia.com</a>
<b>Indonesia</b>	Christy Pattian	62 21 798 5915	<a href="mailto:cpattian@columbia.com">cpattian@columbia.com</a>
<b>Japan (Apparel)</b>	Aritomo Iwasaka	81 368924605	<a href="mailto:alwasaka@columbia.com">alwasaka@columbia.com</a>
<b>Japan (Footwear)</b>	Toshiya Inotani	81 357867178	<a href="mailto:tinotani@columbia.com">tinotani@columbia.com</a>
<b>Korea</b>	Chris Choi	82 2 561 4405	<a href="mailto:chrischoi@columbia.com">chrischoi@columbia.com</a>
<b>Korea</b>	Kevin Jung	82 2 561 4405	<a href="mailto:kjung@columbia.com">kjung@columbia.com</a>
<b>Sri Lanka</b>	Dasanayake Sanjeewa	94 114708655	<a href="mailto:DSanjeewa@columbia.com">DSanjeewa@columbia.com</a>
<b>Central America</b>	Pushpitha Weerasekera	(503) 985-4690	<a href="mailto:pushpithaw@columbia.com">pushpithaw@columbia.com</a>
<b>Taiwan</b>	Chenyi Wu	011 886 2 2771 4888 #8761	<a href="mailto:cwu@columbia.com">cwu@columbia.com</a>
<b>Vietnam</b>	Huynh Binh Thien Quoc	84 8 3962 1370	<a href="mailto:quoch@columbia.com">quoch@columbia.com</a>
<b>Vietnam</b>	Duc Hai	84 8 3863 4649 Ext.846	<a href="mailto:haih@columbia.com">haih@columbia.com</a>