Sustainable Chemistry Guide
&
Restricted Substances List (RSL)

Updated: November 2019

Contents

Introduction

REI was founded by 23 climbing friends who believed that a life outdoors is a life well lived. From those origins, we know that great things can happen when people join together in pursuit of a common purpose.

Today, our community has grown to over 18 million members who trust REI as their source for reliable gear that aligns with their values. To honor this legacy of trust, we are committed to partnering with supply chain partners to deliver safe, high quality products in a manner that protects consumers, workers, and the environment.

We recognize the essential role that chemistry plays in the creation of durable, high-performance products. Thus, REI's strives to use the most benign and well-understood chemical inputs that are managed responsibly throughout the product creation process. The REI Sustainable Chemistry Guide (referred to as *the Guide* hereafter) and Restricted Substances List (RSL) define our expectations and identify resources to enable responsible chemical management practices.

To strengthen our commitment to sustainable chemistry, REI is a proud partner of the bluesign® system. The core principles of the Guide and RSL are aligned with bluesign® to help standardize chemical management expectations for our business partners.

All vendors, finished goods suppliers, raw material suppliers, and licensees to REI's Co-op Brand and Co-op Cycles (all referred to as *Suppliers* hereafter) are required to meet the expectations detailed in this Guide and RSL as a prerequisite for doing business with REI.

The updated expectations of this version must be implemented by January 1, 2020.

The most recent version of the RSL is maintained on the REI website at www.rei.com/assets/pdf/rei-restricted-substances-list/live.pdf.

Thank you for your continuing partnership and your cooperation in ensuring that REI Co-op and Co-op Cycles products meet the high expectations of our Co-op members.

Sincerely,

Cathy Nielsen
Divisional Vice President of
Operations, REI Co-op Brands

Genna Heath
Program Manager of
Sustainable Materials

Lyn Ip
Global Head of
Supplier Sustainability

We inspire, educate and outfit for a lifetime of outdoor adventure and stewardship.

Sustainable Chemistry Overview

From water to complex processing agents, over 8,000 chemicals are used globally for apparel and footwear production. With this inherent dependence on chemistry, REI recognizes our responsibility to work with suppliers to understand the chemistry involved in manufacturing and to select the most effective and safe chemicals.

Some chemicals have known hazardous properties. Others have little or no available data to inform users of potential hazards. Thus, our approach to sustainable chemistry is rooted in transparency and partnership with suppliers, non-profits, industry partners, and trade organizations to learn about the chemistry involved in every aspect of manufacturing. To control hazards, our goal is to identify chemicals of concern and replace them with better alternatives where they exist. Where alternatives do not exist, we seek out new opportunities for innovation to fill the void. We believe this level of understanding and intentional selection is critical for preventing consumer, worker, and environmental exposure to hazardous substances.

We also view chemistry as a unique opportunity for creating positive change. Chemistry can unlock new levels of manufacturing efficiency, material quality and product performance. Our ambition to adopt *green chemistry* innovations plays a growing role in how we design products and partner with existing and new suppliers. This aspiration is aligned with the co-op's broader initiatives to continuously reduce our overall footprint.

We recognize that achieving our sustainable chemistry goals is a journey of incremental progress, exploration and collaboration. In many cases, the data and chemical alternatives needed to achieve our vision do not yet exist. As such, REI is committed to making continuous progress and sharing our learnings broadly with members, suppliers and industry partners.

In the spirit of partnership beyond our business, the content of this Guide and RSL is heavily aligned with industry tools and existing resources to promote convergence towards a common set of objectives for sustainable chemistry. We will continue to update this guide and our sustainable chemistry program as new data and tools are available.

Contact Information

If you have questions, comments or would like support in meeting the expectations outlined in this Guide and RSL, please contact ProductSustainablility@rei.com.

Supplier Responsibilities

REI's policy for chemicals management includes the following supplier responsibilities. Complying with this policy by adhering with these responsibilities is a prerequisite of doing business with REI.

- Review the REI Guide & RSL annually[1];
- Adhere to all applicable legal requirements, regardless of whether those requirements are captured in this document;
- Have an independent process for ensuring compliance with this Guide & RSL and all legal requirements;
- Inform material suppliers and sub-contractors of relevant requirements and expectations;
- Maintain a chemical inventory and a valid chemical Safety Data Sheet (SDS) for each processing chemical stored and used on-site;
- Clearly post information about hazards associated with each chemical and chemical formulation in storage and use areas;
- Provide staff with appropriate training and protective equipment to prevent chemical exposure;
- Upon request, provide REI with existing compliance documentation or laboratory test results;
- Upon request, disclose the identity and use of each chemical used in materials for REI;
- Upon request, disclose the contact information for upstream suppliers and sub-contractors used to make REI materials and products;
- Complete and return Addendum 2: RSL *Acknowledgement of Receipt and Understanding* and Addendum 3: Material Supplier Survey as requested by REI as confirmation of accepting these terms; and
- Notify REI immediately if any materials or products cannot meet the requirements of the RSL using Addendum 4: RSL Failure Remediation Form.

RSL Testing: Material, component, and product testing may be required by REI at any stage of manufacturing to demonstrate compliance with the requirements of this document. Testing may be random or part of REI's scheduled testing program. All random testing is at REI's expense, unless the testing is in direct response to an identified RSL or regulatory compliance violation.

Existing Test Reports: If a material requested for RSL testing has been tested in the past year, you may provide the applicable test report to REI for review. REI will determine and advise whether the report can be accepted in lieu of additional testing.

Transparency: Suppliers shall allow an authorized representative of REI to inspect the manufacturing facility where REI products or raw materials are developed, manufactured, or stored. Visits would be conducted during normal business hours.

REI reserves the right to cancel orders and terminate a business relationship if the Supplier fails to meet any of these requirements.

[1] www.rei.com/assets/pdf/rei-restricted-substances-list/live.pdf

Priority Chemicals

REI continuously examines the chemicals used in our supply chain and prioritizes potentially hazardous substances for elimination or replacement where safer, effective alternatives exist. The following is an overview of the chemicals and chemical classes that REI has identified as top priority for elimination or replacement:

Antimicrobials & biocides: Odor management in textiles and foams is commonly achieved by application of antimicrobial and biocidal finishes. The health and environmental impacts of many these finishes are not thoroughly understood. We are selective in our application of odor control finishes and use only bluesign® certified options to ensure treatments have undergone evaluation for toxicity and efficacy.

Flame retardant (FR) chemicals: FR chemicals are used to comply with flammability requirements. Certain FR chemicals introduce hazards to people and the environment. We are committed to eliminating FR chemicals where they are unnecessary and partnering with standard setting organizations and regulators to reform outdated flammability requirements. Where FR chemicals are demonstrated to be required to achieve regulatory compliance, we work with our suppliers to select the best alternatives.

Per- and Polyfluoroalkyl Substances (PFAS): REI prohibits the use of long-chain PFAS[2]-based water repellent finishes, including finishes that contain PFOA and PFOS. Building upon this commitment, we avoid application of water repellent chemicals where they are not needed for a performance benefit and are exploring PFAS-free alternatives for apparel and gear.

Polyvinyl chloride (PVC): PVC is prohibited from use in REI Co-op Brand apparel and gear products due to high potential for hazardous impacts during product manufacturing and use. PVC is prohibited in Co-op Cycles products as well, with an exception for certain bicycle subcomponents, where durable alternatives are yet to be discovered.

Solvents of high concern: Solvents are a diverse group of chemicals with many uses throughout manufacturing, from equipment cleaning to textile lamination. Certain solvents are classified as carcinogenic, mutagenic and reprotoxic (CMR). REI is working with our suppliers to review, limit, and phase out CMR solvents. To support our goal to eliminate CMR solvents, REI is pursuing water-based coatings, alternative cleaning agents for equipment and material preparation, and training of factory workers around proper chemical selection, handling, and disposal.

Suppliers can find preferred, RSL compliant chemicals through the bluesign FINDER® chemical database. This resource is open-sourced and available at www.bluesign.com/en/business/finder.

Contact REI at ProductSustainability@rei.com if you have questions about the priority chemicals listed above, accessing the bluesign FINDER®, or assessing alternative chemicals for manufacturing.

[2] The Environmental Protection Agency's (EPA) definition of *long-chain* PFAS can be found on the EPA's website.

Tools & Resources

REI's approach to adopting more sustainable chemical management practices is closely connected with a growing set of industry tools. These resources provide REI staff and our Suppliers with information and guidance for preventing exposure to chemical substances of concern, ensuring compliance with the most stringent US and international regulations, and aligning with global chemical management best practices.

bluesign® technologies AG

bluesign®[3] provides a comprehensive system for managing chemistry, water, energy, and emissions during textile production. We believe bluesign® is the best available approach for meeting REI's Sustainable Chemistry goals.

While the bluesign® system is optimized for textile and apparel production, the system's approach to product stewardship is appropriate for any product manufacturing site, and the content of the bluesign® RSL is relevant of all finished materials currently used in REI Co-op and Co-op Cycles products. Thus, REI has aligned our approach to sustainable chemistry and our RSL with the bluesign® system as closely as possible.

bluesign® FINDER

bluesign® provides a list of approved chemicals that have been reviewed for hazards to people and the environment and exposure potential during manufacturing. This database of chemicals, the bluesign® FINDER[4], is now publicly available to support selection of RSL and legally compliant chemistry for material and product manufacturing.

Suppliers of REI are encouraged to gain access to the bluesign® FINDER and use it as a primary tool in selecting chemistry that meets the strictest global compliance and best practice expectations for sustainable manufacturing. All chemicals in the FINDER are compliant with REI's RSL requirements and sustainable chemistry goals. Visit the bluesign® FINDER web page to learn more and gain access.

Chemical Management Guide & Training for Manufacturers

REI partnered with the Outdoor Industry Association (OIA) and other brands to create the Chemicals Management Guide & Training for Manufacturers[5]. This publicly available resource provides information, templates, and training content to support development of policies, strategies, and processes for effectively managing chemistry throughout manufacturing.

REI's Supplier partners are encouraged to download this free tool and use it to inform better chemicals management decisions at production facilities.

[3] https://www.bluesign.com/en
[4] https://www.bluesign.com/en/business/finder
[5] https://outdoorindustry.org/sustainable-business/cm-docs

Globally Harmonized System for Classification and Labeling of Chemicals (GHS)

GHS is an internationally agreed upon system for classifying, documenting, and communicating chemical hazards. Guidance on GHS and documentation standards in different countries can be found on the United Nations website[6]. Further guidance on GHS can also be found in the OIA Chemicals Management Guide & Training, referenced above.

Chemical Safety Data Sheet (SDS)

A chemical safety data sheet (SDS) must be maintained for each processing chemical present at a Supplier's facilities. To meet GHS standards, each SDS must be dated from the past three (3) years and contain sixteen (16) sections of information, including chemical name, composition, hazard identification, first aid measures, and handling and storage.

Examples of valid SDS documents in English, Chinese, and Vietnamese can be found in the OIA Chemical Management Guide & Training, referenced above, or by request.

Chemical Inventory List (CIL)

Suppliers must maintain a CIL that includes all processing chemicals present on-site. A factory's CIL should be maintained by a designated person and be updated at least once every three (3) months. At a minimum, the CIL should include the following information for each chemical kept on site:

1. Chemical product name;
2. Chemical supplier (name, location, contact person);
3. Primary use (e.g., dye, flame retardant);
4. Chemical ingredients (names, CAS numbers, percentage contents);
5. Quantity on site; and
6. bluesign® certification number, if applicable.

Guidance on creating a chemical inventory management process and a downloadable CIL template can be found in the OIA Chemical Management Guide & Training for Manufacturers, referenced above. Alternative strategies for documenting chemicals should be discussed with REI to ensure standards are met.

Higg Index Facility Environmental Module (FEM)

The Higg Index FEM, an industry tool administered by the Sustainable Apparel Coalition (SAC)[7], provides a platform for facilities to measure the environmental impacts of manufacturing and identify areas for improvement. REI is currently using the Facility Environmental Module (FEM) to better understand REI's supply chain impacts, including chemical use and management.

[6] http://www.unece.org/trans/danger/publi/ghs/ghs_welcome_e.html
[7] www.apparelcoalition.org/higg-facility-tools/

Regulatory Requirements

Suppliers of materials, components, products, and packaging to REI must adhere to all applicable legal requirements, regardless of whether those requirements are captured in this document.

California Proposition 65

The California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65), requires manufactures and businesses to label products that contain one or more substance(s) known to the state of California to cause cancer, birth defects, or other reproductive harm. Consumers may initiate legal action against a manufacture or business that fails to provide such warning.

The Proposition 65 list of chemicals requiring product labeling can be found at on the California Office of Environmental Health Hazard Assessment Website[8]. Suppliers must inform REI if any of the chemicals on this list are intentionally added to or may be present as contaminants in REI products or product components.

Consumer Product Safety Improvement Act

The US Consumer Product Safety Improvement Act (CPSIA) requires manufacturers of certain domestic and imported products to test and certify compliance with applicable safety requirements.

For all REI Co-op and Co-op Cycles children's products, Suppliers are responsible for:

1. Ensuring that all materials, components, trims, and finished products are compliant with CPSIA;
2. Testing at a CPSC accredited laboratory;
3. Supplying Children's Product Certificate (CPC) for each production lot; and
4. Providing tracking labels for each production lot.

REI's specific CPSIA requirements can be reviewed in our CPSIA manual on the REI Partners Site[9] or by request. Visit the US Consumer Product Safety Commission website[10] for more information.

State Chemical Reporting Regulations

Maine[11], Oregon[12], Vermont[13], and Washington[14] require manufacturers or importers of goods to notify relevant authorities of the presence of certain chemicals in children's products. Suppliers must inform REI if any of the chemicals in these state level lists are intentionally added to or may be present as contaminants in REI products or product components.

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[8] http://www.oehha.ca.gov/prop65/prop65_list/Newlist.html
[9] http://partners2.rei.com
[10] https://www.cpsc.gov/Regulations-Laws--Standards/Statutes/The-Consumer-Product-Safety-Improvement-Act/
[11] https://www.maine.gov/dep/safechem/childrens-products/index.html
[12] www.oregon.gov/oha/PH/HEALTHYENVIRONMENTS/HEALTHYNEIGHBORHOODS/TOXICSUBSTANCES/Pages/Toxic-Free-Kids.aspx
[13] www.healthvermont.gov/environment/children/chemical-disclosure-program-childrens-products-manufacturers
[14] www.ecy.wa.gov/programs/swfa/cspa/chcc.html

Restricted Substances List (RSL)

REI has adopted the bluesign® system RSL. The bluesign® RSL is a subset of testable substances extracted from the bluesign® System Substances List ("BSSL") that are relevant for finished materials, products and packaging. The BSSL (see link below) is a larger, comprehensive list that includes all global substance restrictions beyond finished products. All REI Co-op Brand suppliers must comply with the RSL for finished products. We also encourage all suppliers to comply with the BSSL.

Definitions

- Article: An object which during production is given a special shape, surface or design, that determines its function to a greater degree than does its chemical composition (fibers, textile fabrics, buttons, zippers, etc.).

- BSSL: bluesign® system substances list (BSSL)[15] consumer safety limits. A list that specifies consumer safety limits for chemical substances in articles. It also defines usage bans for chemical substances prohibited from the manufacturing of articles.

- CAS: CAS registry numbers are unique numerical identifiers for chemical elements, compounds, polymers, biological sequences, mixtures and alloys. Chemical Abstracts Service (CAS), a division of the American Chemical Society, assigns these identifiers to every chemical that has been described in the literature. The intention is to make database searches more convenient, as chemicals often have many names. Almost all molecule databases today allow searching by CAS number.

- Chemical substance: A chemical element and its compounds with constant composition and properties. It is defined by the CAS number.

- Component: A part of an article that can be distinguished according to the material composition, the functionality and/or the color and can easily be mechanically separated from the other components.

- Detection limit (DL): The detection limit is the lowest quantity of a substance that can be distinguished from the absence of that substance following a prescribed analytical method.

- Limit value: The maximum amount of chemical substances permitted in articles for the usage ranges A, B and C.

- Several: Several means, that the whole substance group is restricted although not all substances that are restricted are explicitly listed. The listed examples represent only those substances, which should be considered if substance group is intended for testing.

- Traces: Although there is a ban for a chemical substance, residual amounts of this substance may be contained in a product from a non-intended source. In this case, a limit is defined to minimize these currently unavoidable traces.

[15] http://www.bluesign.com/industry/infocenter/downloads#.VP2xgSni4Rm

- Usage ban: Substances or substance groups designated with usage bans are prohibited from intentional use in manufacturing. That means that chemical products (e.g. colorants or textile auxiliaries) used in manufacturing must not intentionally contain these substances or substance groups. The aim of a usage ban is to avoid release of harmful substances to the environment and to avoid occurrence in the manufactured article by applying the precautionary principle.

- Usage range: Usage ranges classify consumer goods according to their consumer safety relevance. Three usage ranges (A, B, C) are defined, with A being the most stringent category concerning limit values/bans:
    - Usage Range A: Next to skin use and baby articles (0 to 3 years)
    - Usage Range B: Occasional skin contact
    - Usage Range C: No skin contact

Testing methods

in the last column of the Restricted Substances Table contained detailed testing information for each restricted chemical or chemical class. This testing column consists of sample preparation, e.g. extraction, digestion, derivation and specific test method (i.e. the actual measurement).

Depending on the availability, international or national standards are also given for several substances and these methods may be applied. Other accredited methods can only be applied if it can be verified that equivalent results are obtained.

Details of the respective sample preparation methods can be found in the table below:

Sample preparation	Solvent(s)	Temperature (°C)	Time (min)	Other requirements
Extraction with KOH	Potassium hydroxide (1M)	90	12-15 hours	Derivatisation with Acetic anhydride
Extraction with MeOH	Methanol	70	60	Ultrasonic bath
Extraction with THF	Tetrahydrofuran	40	60	
Extraction with DCM	Dichloromethane	40	60	Ultrasonic bath
Extraction with MTBE	Methyl tert-butyl ether	60	60	Ultrasonic bath
Extraction with MeOH/Acetonitrile	Methanol/Acetonitrile (1:1)	70	30	Ultrasonic bath
Extraction with Hexane/Dichloroethane	Hexane/Dichloroethane (1:1)	70	60	
ASE - Accelerated Solvent Extraction	Acetone/Hexane (1:1)	100	-	
ASE – Accelerated Solvent Extraction	Ethyl acetate	40	-	
Soxhlet Extraction	Acetone/Hexane (1:1)	-	480	
Headspace	-	120	45	
DIN EN ISO 105-E04 (2013)	Acidic sweat solution	37	60	Textile to liquor ratio 1:50

Testing Matrix

The following matrix provides guidance on where restricted substances may occur based on material substrate. It is recommended that Suppliers use this matrix as a starting point for understanding what chemicals are of greatest concern for the materials supplied to REI.

Substances are grouped by chemical composition, functionality, or environmental impacts (e.g. ozone depleting substances). Chemical groups are listed in **bold** and correspond with chemical groups in the Restricted Substances Table and Appendices in the following section of this guide.

This table is aligned with the bluesign® Testing Matrix version 9.0 (July 1, 2018). Contact REI to receive recommendations for materials not explicitly included in this matrix or to view REI's RSL testing plans.

See the Restricted Substances Table and Appendices for chemical or chemical group specific CAS numbers, limits, and testing methods.

Matrix Key:

- ● Testing strongly recommended
- ○ Testing recommended
- – Not relevant

Test Item	Textiles from natural fibers	Textiles from synthetic fibers	Additional testing for coated or printed textiles	Leather	Plastics and other synthetic materials (PU, PVC, Rubber, TPU, TPR, EVA, synthetic leather, etc.)	Metal parts
pH Value	●	●	–	●	–	–
Odor	●	●	–	●	●	–
Color Fastness Properties						
Fastness to perspiration	●	●	–	●	–	–
Color fastness to saliva and perspiration (baby, mouthing)	●	●	–	●	●	–
Extractable Heavy Metals						
Antimony	–	**PES** ●	–	○	○	–
Arsenic	○	–	–	○	○	–
Cadmium	–	○	●	–	●	○
Chromium, total	**Wool** ● **Other** ○	**PA** ● **Other** ○	–	–	○	–
Chromium VI	○	○	–	●	○	–
Cobalt	○	○	–	○	○	–
Copper	○	○	–	○	○	–
Lead	●	●	–	●	●	○
Mercury	○	○	–	○	○	–

Nickel	○	○	–	○	○	–
Heavy Metals (total content)						
Total Lead	●	●	–	●	●	●
Total Cadmium	●	●	–	●	●	●
Heavy Metals (release)						
Nickel	–	–	–	–	–	●
Aldehydes						
Formaldehyde	●	●	–	●	–	–
Alkylphenols and Alkylphenol ethoxylates	●	●	–	●	○	–
Amines						
Aniline	○	○	–	–	–	–
Arylamines	●	●	–	●	–	–
Asbestos	–	–	–	–	–	–
Chlorinated Benzenes and Toluenes	–	●	–	○	–	–
Chlorinated Phenols	●	●	–	●	–	–
Colorants						
with carcinogenic potential	●	●	–	●	–	–
with allergenic potential	○	●	–	○	–	–
banned for other reasons	●	●	–	●	–	–
Dioxins and Furans	–	–	–	–	–	–
Flame Retardants (Required if sample declared with functional finishing)	○	○	–	–	○	–
Paraffin, C10-C13, chlorinated (SCCP)	–	–	–	●	–	–
Fluorinated Greenhouse Gases	–	–	–	–	–	–
Fluorinated Substances						
Perfluorooctane sulfonic acid / Perfluorooctane sulfonate (PFOS)	○	○	–	○	–	–
Perfluorocarboxylic acids and salts [PFHxA, PFOA]	○	○	–	○	–	–
PFOA-related substances	○	○	–	○	–	–
Glycols	–	–	–	–	–	–
Halogenated Biphenyls, Terphenyls and Naphthalenes	○	○	–	○	○	–
Halogenated Diarylalkanes	○	○	–	–	○	–
Isocyanates (Required for PU and for relevant functional finishes)	○	○	**PU** ●	–	**PU** ●	–
Monomers						

Acrylamide	○	○	–	–	○	–
Other Chemical Substances						
Acetophenone	–	–	–	–	**EVA** ●	–
Bisphenol A	○	○	–	–	●	–
Cresol, all isomers	○	○	–	○	–	–
Dimethylfumarate (required if the product is packaged with any form of anti-mold agent)	○	○	–	○	○	–
Formamide	–	–	–	–	**EVA** ●	–
o-Phenylphenol	○	○	–	●	–	–
2-Phenyl-2-propanol	–	–	–	–	**EVA** ●	–
Quinoline	–	●	–	–	–	
Ozone Depleting Substances	–	–	–	–	–	–
Pesticides	○	–	–	○	–	–
Plasticizers	–	–	●	–	●	–
Polyaromatic Hydrocarbons (PAHs) incl. Benzo(a)pyrene	–	–	●	–	●	–
Polymers						
Polyvinylchloride (PVC)	–	–	●	–	●	–
Solvents						
N, N-Dimethylacetamide (DMAc)	–	○	○	○	○	–
N, N-Dimethylformamide (DMF)	–	–	●	●	○	–
N-Ethyl-2-pyrrolidone (NEP)	○	○	–	○	○	–
N-Methylpyrrolidone (NMP)	○	○	–	○	○	–
Tetrachloroethylene	○	○	–	○	○	–
Toluene	–	–	●	●	●	–
Trichloroethylene	○	○	–	●	○	–
Tin Organic Compounds	○	○	●	●	●	–
UV stabilizer	–	–	○ (for coated)	–	○	–

Restricted Substances Table & Appendices

The table below contains information on the substances or groups of substances prohibited or strictly limited in REI Co-op Brand and Co-op Cycles materials, products and packaging. Consistent with the testing matrix above, substances in this table are grouped by chemical composition, functionality, or environmental impacts (e.g. ozone depleting substances). For substance groups in bold, reference the Restricted Substance Appendices of chemicals in this Guide for specific chemical names and CAS numbers.

PARAMETER	LIMIT [mg/kg]			RECOMMENDED SAMPLE PREPARATION // TEST METHOD
	A	B	C	
pH	Non-leather products:			ISO 3071 (2005)
	4.0-7.5			
	Leather products:			ISO 4045 (2008)
	3.5-7.5			

SUBSTANCE	LIMIT [mg/kg]			RECOMMENDED SAMPLE PREPARATION // TEST METHOD
	A	B	C	
Aldehydes				
Formaldehyde (CAS 50-00-0)	DL (15)	75	300	Textile: ISO 14184-1 (2011) Leather: ISO 17226-1 (2008) or ISO 17226-2 (2008)
Alkylphenols (APs) and **Alkylphenol ethoxylates (APEOs)** listed in Appendix A	**Usage ban** 10 for each Alkylphenol 100 for each Alkylphenol ethoxylate			Textile: ISO 18254-1 (2016) Leather: ISO 18218-1 (2015)
Amines				

SUBSTANCE	LIMIT [mg/kg]			RECOMMENDED SAMPLE PREPARATION // TEST METHOD
	A	B	C	
Aniline (free) (CAS 62-53-3)	Usage ban // DL: 30			Extraction with MeOH // LC-MS
Arylamines (including corresponding salts; as substance for example in PU, and as decomposition product of azo colorants which, by reductive cleavage of one or more azo groups, may release one or more of the aromatic amines) listed in Appendix B	**Usage ban** DL: 20			Textile: EN ISO 14362-1 (2017) EN ISO 14362-3 (2017) (for azo colorants which may release 4-Aminoazobenzene) Leather: EN ISO 17234-1 (2015) EN ISO 17234-2 (2011) (for azo colorants which may release 4-Aminoazobenzene)
Asbestos listed in Appendix C	**Usage ban** **not detected**			REM/EDX BGI 505-46 or U.S. EPA/600/R-93/116
Chlorinated Benzenes and Toluenes listed in Appendix D	**Usage ban** DL: 1.0 Sum of all: 5.0			DIN 54232 (2010)

SUBSTANCE	LIMIT [mg/kg]			RECOMMENDED SAMPLE PREPARATION // TEST METHOD
	A	B	C	
Chlorinated Phenols listed in Appendix E	**Usage ban**			Extraction with KOH // § 64 LFGB B 82.02-8 (2001) or DIN EN ISO 17070 (2015)
Monochlorophenols (MonoCP), all isomers (CAS 25167-80-0)	Sum of all Mono- and DiCPs:			
Dichlorophenols (DiCP), all isomers (CAS 25167-81-1)	1.0	1.0	1.0	
Trichlorophenols (TriCP), all isomers (CAS 25167-82-2)	Sum of each group of TriCPs, TeCPs, PCPs:			
Tetrachlorophenols (TeCP), salts and compounds (CAS 25167-83-3)	0.05	0.5	0.5	
Pentachlorophenol (PCP), salts, esters and compounds (CAS 87-86-5)				
Colorants	**Usage ban**			DIN 54231
Colorants with carcinogenic potential listed in Appendix F	DL: 20			
Colorants with allergenic potential listed in Appendix G	DL: 20			
Colorants banned for other reasons listed in Appendix H	DL: 20			

SUBSTANCE	LIMIT [mg/kg]			RECOMMENDED SAMPLE PREPARATION // TEST METHOD
	A	B	C	
Dioxins and Furans listed in Appendix I	**Usage ban**			EPA 8290A
Group 1	Sum of group 1: 1.0 [µg/kg]			
Group 2	Sum of group 1 and 2: 5.0 [µg/kg]			
Group 3	Sum of group 1, 2 and 3: 100 [µg/kg]			
Group 4	Sum of group 4: 1.0 [µg/kg]			
Group 5	Sum of group 4 and 5: 5.0 [µg/kg]			
Flame retardants listed in Appendix J	**Usage ban** DL: 5.0			ISO 17881-1 (2016) for brominated flame retardants ISO 17881-2 (2016) for phosphorus flame retardants
	Chlorinated paraffins in leather: **Usage ban** Traces: 100			
Fluorinated Greenhouse Gases listed in Appendix K	**Usage ban** DL: 0.1			Headspace GC-MS
Fluorinated Substances				
Perfluorooctane sulfonic acid / Perfluorooctane sulfonate (PFOS)* (CAS 1763-23-1)	**Usage ban** 1.0 [µg/m^2]			CEN/TS 15968 (2014)
Perfluorocarboxylic acid and salts	**Usage ban**			CEN/TS 15968 (2014)

SUBSTANCE	LIMIT [mg/kg]			RECOMMENDED SAMPLE PREPARATION // TEST METHOD
	A	B	C	
PFHxA (CAS 307-24-4)	0.05			CEN/TS 15968 (2014)
PFOA** (CAS 335-67-1)	**Usage ban** Traces: 25 [µg/kg]			
PFOA-related substances	**Several**			CEN/TS 15968 (2014)
Heptadecafluoro-1-iodooctane** (CAS 507-63-1)	**Usage ban** // Traces: 1000 [µg/kg] (for the sum of PFOA-related substances)			CEN/TS 15968 (2014)
1H,1H,2H,2H-Perfluorodecyliodide** (CAS 2043-53-0)				
8:2 FTOH, Perfluorooctylethanol** (CAS 678-39-7)				Extraction with MTBE // GC-MS
Perfluorooctylethene** (CAS 21652-58-4)				ASE with Ethyl acetate // GC-MS or LC-MS
Perfluorooctylethyl acrylate or methacrylate**				Extraction with MTBE // GC-MS

*Ban on long-chain compounds in manufacturing based on long-chain electrofluorination chemistry (C6 and higher).

**Phase-out of long-chain compounds in manufacturing based on long-chain telomer chemistry (C8 and higher) until end of 2014.

SUBSTANCE	LIMIT [mg/kg]			RECOMMENDED SAMPLE PREPARATION // TEST METHOD
	A	B	C	
Glycols				
Bis(2-methoxyethyl)-ether (CAS 111-96-6)	**Usage ban** DL:5.0			Textile: Extraction with MeOH // GC-MS Plastic: 2-Step extraction with THF and MeOH // GC-MS
2-Ethoxyethanol (CAS 110-80-5)				
2-Ethoxyethyl acetate (CAS 111-15-9)				
Ethylene glycol dimethyl ether (CAS 110-71-4)				
2-Methoxyethanol (CAS 109-86-4)				Textile: Extraction with MeOH // GC-MS Plastic: 2-Step extraction with THF and MeOH // GC-MS
2-Methoxyethylacetate (CAS 110-49-6)				
2-Methoxy-1-propanol (CAS 1589-47-5)	**Usage ban** DL:5.0			
2-Methoxypropylacetate (CAS 70657-70-4)				
Triethylene glycol dimethyl ether (CAS 112-49-2)				
Halogenated Biphenyls, halogenated Terphenyls, halogenated Naphthalenes listed in Appendix L	**Usage ban**			ISO 17881-1 (2016)
	DL: 1.0			
	DL: 5.0 (PBBs)			
Halogenated Diarylalkanes listed in Appendix M	**Usage ban** DL: 1.0			Extraction following IEC 62321-6 (2015) // GC-MS
Isocyanates listed in Appendix N	Free content Sum of all: 1.0			EN 13130-8 (2004)

HEAVY METALS (EXTRACTABLE CONTENT)

METAL	LIMIT [mg/kg]			RECOMMENDED SAMPLE PREPARATION // TEST METHOD
	A	B	C	
Antimony (Sb) (CAS 7440-36-0)	Textiles and leather			Textiles: DIN EN 16711-2 (2016) (acidic sweat solution) Leather: ISO 17072-1 (2011) (acidic sweat solution)
	5	10	10	
Continued… Antimony (Sb) (CAS 7440-36-0)	Metal parts and non-metal parts other than textiles and leather			EN 71-3 (2013) (acidic solution simulating gastric juices) // ISO 17294-2 (2016) or DIN EN ISO 11885 (2009)
	60			
Arsenic (As) (CAS 7440-38-2)	**Usage ban** Traces: 0.2			Textiles and others: DIN EN 16711-2 (2016) (acidic sweat solution) Leather: ISO 17072-1 (2011) (acidic sweat solution)
Cadmium (Cd) (CAS 7440-43-9)	**Usage ban**			
	Non-metal parts (textiles, leather and others) Traces: 0.1			Textiles and others: DIN EN 16711-2 (2016) (acidic sweat solution) Leather: ISO 17072-1 (2011) (acidic sweat solution)
Chromium (Cr) (CAS 7440-47-3)	Textiles			DIN EN 16711-2 (2016) (acidic sweat solution)
	0.5			
	For textiles dyed with chromium containing metal complex dyes:			
	1.0	2.0	2.0	
	See next page…			*See next page…*

METAL	LIMIT [mg/kg]			RECOMMENDED SAMPLE PREPARATION // TEST METHOD
	A	B	C	
Continued… Chromium (Cr) (CAS 7440-47-3)	Non-metal parts other than textiles and leather: 60			EN 71-3 (2013) (acidic solution simulating gastric juices) // ISO 17294-2 (2016) or DIN EN ISO 11885 (2009)
	If products are covered with a metal layer, including a chromium layer, coating must be constantly in good condition			
	Leather: no regulation			-
Chromium (VI) (CAS 18540-29-9)	**Usage ban**			
	Metal parts and non-metal parts others than leather:			EN ISO 17075-1 or -2 (2017)
	DL: 0.5			
	Leather:			DIN EN ISO 4044 (2017) // EN ISO 17075-1 (2017-) or EN ISO 17075-2 (2017-05)
	DL: 3.0			
Cobalt (Co) (CAS 7440-48-4)	Textiles and leather:			Textiles and others: DIN EN 16711-2 (2016) (acidic sweat solution) Leather: ISO 17072-1 (2011) (acidic sweat solution)
	1.0			
	For textiles and leather dyed with cobalt containing metal complex dyes, metal parts and all other applicable materials:			
	1.0	4.0	4.0	
Copper (Cu) (CAS 7440-50-8)	For textiles and leather (including metal complex dyed materials)			Textiles and others: DIN EN 16711-2 (2016) (acidic sweat solution) Leather: ISO 17072-1 (2011) (acidic sweat solution)
	25	50	50	
	Non-metal parts others than textiles and leather:			-
	No regulation			

METAL	LIMIT [mg/kg]			RECOMMENDED SAMPLE PREPARATION // TEST METHOD
	A	B	C	
Lead (Pb) (CAS 7439-92-1)	**Usage ban**			
	Textiles, plastics and leather Traces:			Textiles and others: DIN EN 16711-2 (2016) (acidic sweat solution) Leather: ISO 17072-1 (2011) (acidic sweat solution)
	0.2	1.0	1.0	
Mercury (Hg) (CAS 7439-97-6)	**Usage ban**			
	Non-metal parts			Textiles and others: DIN EN 16711-2 (2016) (acidic sweat solution) Leather: ISO 17072-1 (2011) (acidic sweat solution)
	Traces: 0.02			
	Metal parts:			EN 71-3 (2013) (acidic solution simulating gastric juices) // ISO 12846 (2012)
	Traces: 60			
Nickel (Ni) (CAS 7440-02-0)	Textiles and leather:			Textiles and others: DIN EN 16711-2 (2016) (acidic sweat solution) Leather: ISO 17072-1 (2011) (acidic sweat solution)
	1.0			
	For textiles and leather dyed with nickel containing metal complex dyes:			
	1.0	4.0	4.0	
	Metal parts and non-metal parts others than textiles and leather:			Release EN 12472 (2005)+A1(2009) // EN 1811 (2011)+A1(2015)
	Usage ban for A and B 0.5 [µg/cm²/week]			

HEAVY METALS (TOTAL CONTENT)

METAL	LIMIT [mg/kg]			RECOMMENDED SAMPLE PREPARATION // TEST METHOD
	A	B	C	
Total Cadmium (Cd)	**Usage ban**			
	Non-metal parts (textiles, leather and others)			Textiles and others: DIN EN 16711-1 (2016) (total content) Leather: ISO 17072-2 (2011) (total content)
	Traces: 40			
	Metal parts			DIN EN 16711-1 (2016) (total content)
	Traces: 40			
Total Lead (Pb)	**Usage ban**			
	Textiles, plastics and leather			Textiles and others: DIN EN 16711-1 (2016) (total content) Leather: ISO 17072-2 (2011) (total content)
	Traces: 40			
	Metal parts			DIN EN 16711-1 (2016) (total content)
	Traces: 90			

SUBSTANCE	LIMIT [mg/kg]			RECOMMENDED SAMPLE PREPARATION // TEST METHOD
	A	B	C	
Monomers				
Acrylamide (CAS 79-06-1)	**Usage ban** 1.0			Textile: Extraction with MeOH // LC-MS Plastic: 2-Step extraction with THF and MeOH // LC-MS
Other Chemical Substances				
Acetophenone (CAS 98-86-2)	20			Extraction with MeOH // GC-MS
Bisphenol A (CAS 80-05-7)	**Usage ban for textile finishing** DL: 1.0 Accessories: 50			Extraction with MeOH // ISO 18857-2 (2009)
Cresol, all isomers (CAS 1319-77-3)	**Usage ban** DL:10			Extraction with KOH // § 64 LFGB B 82.02-8 (2001) or DIN EN ISO 17070 (2015)
m-Cresol (CAS 108-39-4)				
o-Cresol (CAS 95-48-7)				
p-Cresol (CAS 106-44-5)				
Dimethylfumarate (CAS 624-49-7)	**Usage ban** DL: 0.1			ISO/TS 16186 (2012) // GC-MS
Formamide (CAS 75-12-7)	**Usage ban**			Extraction with MeOH* // GC-MS *Cut the samples into small pieces (2x2mm)
	50	50	100	
Isoquinoline (CAS 119-65-3)	Usage ban // Traces: 50 Valid from July 2021			Extraction with MeOH or THF // LC-MS/MS or LC-DAD
o-Phenylphenol (CAS 90-43-7)	For textiles:			Extraction with KOH // § 64 LFGB B 82.02-8 (2001) or DIN EN ISO 17070 (2015)
	50	50	50	
	For leather:			ISO 13365 (2011)
	50	100	200	

SUBSTANCE	LIMIT [mg/kg]			RECOMMENDED SAMPLE PREPARATION // TEST METHOD
	A	B	C	
Phenol (CAS 108-95-2)	10	50	100	Extraction with MeOH // GC-MS or LC-MS
2-Phenyl-2-propanol (CAS 617-94-7)	1.0	10	10	Extraction with MeOH // GC-MS
Quinoline (CAS 91-22-5)	50			Extraction with Methanol or THF // LC-MS/MS or LC-DAD
Ozone Depleting Substances listed in Appendix O	**Usage ban** for direct use in manufacturing of articles DL: 0.1			Headspace GC-MS
Pesticides listed in Appendix P	**Usage ban** 0.5 applies to sum of pesticides			ASE or Soxhlet Extraction with Acetone/Hexane // GC-MS or LC-MC
Plasticizers listed in Appendix Q	**Usage ban** 50			ISO 14389 (2014)
Polyaromatic Hydrocarbons (PAHs) Listed in Appendix R	**Usage ban**			EPA 8310 EPA 8270D EPA 8275A AfPS GS 2014:01
	Sum of all PAHs: 10			
	Benzo(a)pyrene: 0.2			
	PAHs marked with (*):			
	0.5	1.0	1.0	
Polymers				
Polyvinyl chloride (PVC) (CAS 9002-86-2)	**Usage ban for A and B** Not detected			Beilstein test* // FTIR *FTIR measurement only if result of Beilstein test was positive

SUBSTANCE	LIMIT [mg/kg]			RECOMMENDED SAMPLE PREPARATION // TEST METHOD
	A	B	C	
Solvents				
Benzene (CAS 71-43-2)	**Usage ban** DL: 5.0			VDA 278 (2011)
1,2-Dichloroethane (CAS 107-06-2)	**Usage ban** DL: 1.0			Headspace GC-MS
Dichloromethane (CAS 75-09-2)	**Usage ban** DL: 5.0			Headspace GC-MS
N-Ethyl-2-pyrrolidone (NEP) (CAS 2687-91-4)	**Usage ban** Traces:			CEN ISO/TS 16189 (2013)
	10	10	100	
N-Methylpyrrolidone (NMP) (CAS 872-50-4)	**Usage ban** Traces:			CEN ISO/TS 16189 (2013)
	10	10	100	
N,N-Dimethylacetamide (DMAc) (CAS 127-19-5)	**Usage ban with exception of fiber manufacturing** DL: 5.0			CEN ISO/TS 16189 (2013)
	Limits for fiber manufacturing (residual fiber solvent):			
	10	50	50	
N,N-Dimethylformamide (DMF) (CAS 68-12-2)	**Usage ban with exception of solvent coating, laminating, fiber manufacturing** DL: 5.0			CEN ISO/TS 16189 (2013)
	For solvent coating, laminating,fiber manufacturing :			
	50			
Tetrachloroethylene (Perchloroethylene) (CAS 127-18-4)	**Usage ban** DL: 1.0			Headspace GC-MS
Toluene (CAS 108-88-3)	10	50	50	Headspace GC-MS

SUBSTANCE	LIMIT [mg/kg]			RECOMMENDED SAMPLE PREPARATION // TEST METHOD
	A	B	C	
Trichloroethylene (CAS 79-01-6)	**Usage ban** DL: 5.0			Headspace GC-MS
Xylene, all isomers (CAS 1330-20-7)	**Usage ban in textile finishing** DL:1.0			Headspace GC-MS
m-Xylene (CAS 108-38-3)	Non-textile articles Traces: 1.0			
o-Xylene (CAS 95-47-6)				
p-Xylene (CAS 106-42-3)				
Tin organic compounds	**Usage ban**			ISO/TS 16179 (2012)
Monomethyltin compounds (MMT)	2.0			
Monobutyltin compounds (MBT)	1.0			
Monophenyltin compounds (MPhT)	1.0			
Monooctyltin compounds (MOT)	2.0			
Dimethyltin compounds (DMT)	DL:0.5			
Dipropyltin compounds (DPT)	1.0			
Dibutyltin compounds (DBT)	1.0			
Diphenyltin compounds (DPhT)	2.0			
Dioctyltin compounds (DOT)	1.0			
Trimethyltin compounds (TMT)	DL:0.5			
Tripropyltin compounds (TPT)	DL:0.5			

SUBSTANCE	LIMIT [mg/kg]			RECOMMENDED SAMPLE PREPARATION // TEST METHOD
	A	B	C	
Tributyltin compounds (TBT)	DL:0.5			ISO/TS 16179 (2012)
Triphenyltin compounds (TPhT)	DL:0.5			
Trioctyltin compounds (TOT)	DL:0.5			
Tetraethyltin compounds (TeET)	1.0			
Tetrabutyltin compounds (TTBT)	DL:0.5			
Tetraoctyltin compounds (TTOT)	DL:0.5			
Tricyclohexyltin compounds (TCyHT)	DL:0.5			
UV stabilizers	**Usage ban**			Extraction with Hexane/Dichloroethane // GC-MS
UV-320 2-benzotriazol-2-yl-4,6-di-tert-butylphenol (CAS 3846-71-7)	Traces: 1000			
UV-327 2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (CAS 3864-99-1)				
UV-328 2-(2H-benzotriazol-2-yl)-4,6-bis(1,1-dimethylpropyl)phenol (CAS 25973-55-1)				
UV-350 2-(2H-Benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (CAS 36437-37-3)				

Appendix A: Alkylphenols and Alkylphenolethoxylates	CAS – No.
Nonylphenol (NP)	several
Octylphenol (OP)	several
Nonylphenolethoxylate $(EO)_{3-20}$	several
Octylphenolethoxylate $(EO)_{3-20}$	several

Appendix B: Arylamines (and corresponding salts)	CAS – No.
p-Aminoazobenzene	60-09-3
o-Aminoazotoluene	97-56-3
4-Aminobiphenyl	92-67-1
2-Amino-4-nitrotoluene	99-55-8
2-Anisidine	90-04-0
Benzidine	92-87-5
4-Chloroaniline	106-47-8
4-Chlor-2-toluidine	95-69-2
4-Chloro-o-toluidinium chloride	3165-93-3
p-Cresidine	120-71-8
2,4-Diaminoanisole	615-05-4
4,4'-Diaminodiphenylmethane	101-77-9
2,4-Diaminotoluene	95-80-7
3,3'-Dichlorobenzidine	91-94-1
3,3'-Dimethoxybenzidine	119-90-4
3,3'-Dimethylbenzidine	119-93-7
3,3'-Dimethyl-4,4'-diaminodiphenylmethane	838-88-0
4-Methoxy-m-phenylene diammonium sulphate; 2,4-diaminoanisole sulphate	39156-41-7
4,4'-Methylenebis-(2-chloraniline)	101-14-4
2-Naphthylamine	91-59-8
2-Naphthylammoniumacetate	553-00-4
4,4’-Oxydianiline	101-80-4
4,4’-Thiodianiline	139-65-1
o-Toluidine	95-53-4
2,4,5-Trimethylaniline	137-17-7
2,4,5-Trimethylaniline hydrochloride	21436-97-5
2,4-Xylidine	95-68-1
2,6-Xylidine	87-62-7

Appendix C: Asbestos	CAS – No.
Actinolite	77536-66-4
Amosite	12172-73-5
Anthophyllite	77536-67-5
Chrysotile	12001-29-5
Crocidolite	12001-28-4
Tremolite	77536-68-6

Appendix D: Chlorinated Benzenes and Toluenes	CAS – No.
Monochlorobenzene	108-90-7
Dichlorobenzenes, all isomers	Several
1,2-Dichlorobenzene	95-50-1
1,3-Dichlorobenzene	541-73-1
1,4-Dichlorobenzene	106-46-7
Trichlorobenzenes, all isomers	Several
1,2,3-Trichlorobenzene	87-61-6
1,2,4-Trichlorobenzene	120-82-1
1,3,5-Trichlorobenzene	108-70-3
Tetrachlorobenzenes, all isomers	Several
1,2,3,4-Tetrachlorobenzene	634-66-2
1,2,3,5-Tetrachlorobenzene	634-90-2
1,2,4,5-Tetrachlorobenzene	95-94-3
Pentachlorobenzene	608-93-5
Hexachlorobenzene	118-74-1
Monochlorotoluenes, all isomers	Several
2-Chlorotoluene	95-49-8
3-Chlorotoluene	108-41-8
4-Chlorotoluene	106-43-4
a-Chlorotoluene	100-44-7
Dichlorotoluenes, all isomers	Several
2,3-Dichlorotoluene	32768-54-0
2,4-Dichlorotoluene	95-73-8
2,5-Dichlorotoluene	19398-61-9
2,6-Dichlorotoluene	118-69-4
3,4-Dichlorotoluene	95-75-0
3,5-Dichlorotoluene	25186-47-4
Trichlorotoluenes, all isomers	Several
2,3,4-Trichlorotoluene	7359-72-0
2,3,6-Trichlorotoluene	2077-46-5
2,4,5-Trichlorotoluene	6639-30-1
2,4,6-Trichlorotoluene	23749-65-7
3,4,5-Trichlorotoluene	21472-86-6
a,a,a-Trichlorotoluene	98-07-7
Tetrachlorotoluenes, all isomers	Several
2,3,4,5-Tetrachlorotoluene	76057-12-0
2,3,5,6-Tetrachlorotoluene	29733-70-8
2,3,4,6-Tetrachlorotoluene	875-40-1
a,a,a,4-Tetrachlorotoluene	5216-25-1
Pentachlorotoluene	877-11-2
Chlorotoluene, unspecific mixture	25168-05-2

Appendix E: Chlorinated Phenols	CAS – No.
Monochlorophenols	25167-80-0
2-Chlorophenol	95-57-8
3-Chlorophenol	108-43-0
4-Chlorophenol	106-48-9
Dichlorophenols	25167-81-1
2,3-Dichlorophenol	576-24-9
2,4-Dichlorophenol	120-83-2
2,5-Dichlorophenol	583-78-8
2,6-Dichlorophenol	87-65-0
3,4-Dichlorophenol	95-77-2
3,5-Dichlorophenol	591-35-5
Trichlorophenols	25167-82-2
2,3,4-Trichlorophenol	15950-66-0
2,3,5-Trichlorophenol	933-78-8
2,3,6-Trichlorophenol	933-75-5
2,4,5-Trichlorophenol	95-95-4
2,4,6-Trichlorophenol	88-06-2
3,4,5-Trichlorophenol	609-19-8
Tetrachlorophenols	25167-83-3
2,3,4,5-Tetrachlorophenol	4901-51-3
2,3,4,6-Tetrachlorophenol	58-90-2
2,3,5,6-Tetrachlorophenol	935-95-5
Pentachlorophenols	87-86-5

Appendix F: Colorants with carcinogenic potential	CAS – No.
Acid Red 26	3761-53-3
Acid Red 114	6459-94-5
Basic Green 4	Several
Malachit green	10309-95-2
Malachit green chloride	569-64-2
Malachit green oxalate	2437-29-8
Basic Red 9	569-61-9
Basic Violet 14	632-99-5
Direct Black 38	1937-37-7
Direct Blue 6	2602-46-2
Direct Blue 15	2429-74-5
Direct Brown 95	16071-86-6
Direct Red 28	573-58-0
Disperse Blue 1	2475-45-8
Disperse Orange 11	82-28-0
Disperse Yellow 3	2832-40-8
Pigment Black 25	68186-89-0
Pigment Yellow 34	1344-37-2
Pigment Yellow 157	68610-24-2
Pigment Red 104	12656-85-8

Appendix G: Colorants with allergenic potential	CAS – No.
Disperse Blue 3	2475-46-9
Disperse Blue 7	3179-90-6
Disperse Blue 26	3860-63-7
Disperse Blue 35	12222-75-2 56524-77-7
Disperse Blue 102	12222-97-8
Disperse Blue 106	12223-01-7
Disperse Blue 124	61951-51-7
Disperse Brown 1	23355-64-8
Disperse Orange 1	2581-69-3
Disperse Orange 3	730-40-5
Disperse Orange 37/59/76	12223-33-5 13301-61-6 51811-42-8
Disperse Red 1	2872-52-8
Disperse Red 11	2872-48-2
Disperse Red 17	3179-89-3
Disperse Yellow 1	119-15-3
Disperse Yellow 9	6373-73-5
Disperse Yellow 39	12236-29-2
Disperse Yellow 49	54824-37-2

Appendix H: Colorants banned for other reasons	CAS – No.
Basic Blue 26	2580-56-5
Basic Violet 3	548-62-9 603-48-5 14426-25-6
Direct Yellow 1	6472-91-9
Disperse Yellow 23	6250-23-3
Disperse Orange 149	85136-74-9
Navy Blue 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-) Component 1: CAS-No: 118685-33-9 C39H23ClCrN7O12S.2Na ¦ Component 2: C46H30CrN10O20S2.3Na	EC-Number: 405-665-4 Component 1: 118685-33-9 Component 2: Not allocated

Appendix I: Dioxins and Furans	CAS – No.
Group 1:	Several
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746-01-6
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	40321-76-4
2,3,7,8-Tetrachlorodibenzofuran	51207-31-9
2,3,4,7,8-Pentachlorodibenzofuran	57117-31-4

Appendix I: Dioxins and Furans	CAS – No.
Group 2:	Several
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	39227-28-6
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	57653-85-7
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	19408-74-3
1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6
1,2,3,4,7,8-Hexachlorodibenzofuran	70648-26-9
1,2,3,6,7,8-Hexachlorodibenzofuran	57117-44-9
1,2,3,7,8,9-Hexachlorodibenzofuran	72918-21-9
2,3,4,6,7,8-Hexachlorodibenzofuran	60851-34-5
Group 3:	Several
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	3268-87-9
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4
1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7
1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001-02-0
Group 4:	Several
2,3,7,8-Tetrabromodibenzo-p-dioxin	50585-41-6
1,2,3,7,8-Pentabromodibenzo-p-dioxin	109333-34-8
2,3,7,8-Tetrabromodibenzofuran	67733-57-7
2,3,4,7,8-Pentabromodibenzofuran	131166-92-2
Group 5:	Several
1,2,3,4,7,8-Hexabromodibenzo-p-dioxin	110999-44-5
1,2,3,6,7,8-Hexabromodibenzo-p-dioxin	110999-45-6
1,2,3,7,8,9-Hexabromodibenzo-p-dioxin	110999-46-7
1,2,3,7,8-Pentabromodibenzofuran	107555-93-1

Appendix J: Flame retardants	CAS – No.
2,2-Bis(bromomethyl)-1,3-propanediol	3296-90-0
Bis(2,3-dibromopropyl)phosphate	5412-25-9
Chlorinated paraffins, all chain lengths	Several
Paraffin wax, chlorinated	63449-39-8
Paraffin, C_{10}-C_{13}, chlorinated (SCCP)	85535-84-8
Paraffin, C_{14}-C_{17}, chlorinated (MCCP)	85535-85-9
Paraffin, C_{18}-C_{28}, chlorinated (LCCP)	85535-86-0
Hexabromocyclododecane	25637-99-4 3194-55-6 134237-50-6 134237-51-7 134237-52-8
Polybrominated diphenyl ethers (PBDE)	Several
Tetrabromodiphenyl ether (TetraBDE)	40088-47-9
Pentabromodiphenyl ether (PentaBDE)	32534-81-9
Hexabromodiphenyl ether (HexaBDE)	36483-60-0
Heptabromodiphenyl ether (HeptaBDE)	68928-80-3
Octabromodiphenyl ether (OctaBDE)	32536-52-0

Appendix J: Flame retardants	CAS – No.
Nonabromodiphenyl ether (NonaBDE)	63936-56-1
Decabromodiphenyl ether (DecaBDE)	1163-19-5
Tetrabromobisphenol A	79-94-7
Tetrabromobisphenol A bis(2,3-dibromopropylether)	21850-44-2
Tri(aziridin-1-yl)phosphine oxide (TEPA) Triethylenephosphoramide	545-55-1
Trimethyl phosphate	512-56-1
Tri-o-cresyl phosphate	78-30-8
Tris(2-chloroethyl) phosphate (TCEP)	115-96-8
Tris-(2-chloro-1-methylethyl)phosphate (TCPP)	13674-84-5
Tris-[2-chloro-1-(chloromethyl)ethyl]phosphate (TDCP)	13674-87-8
Tris(2,3-dibromopropyl)phosphate (TRIS)	126-72-7
Trixylyl phosphate	25155-23-1

Appendix K: Fluorinated Greenhouse Gases	CAS – No.
Sulphur hexafluoride – SF6	2551-62-4
Perfluoromethane	75-73-0
Perfluoroethane	76-16-4
Perfluoropropane	76-19-7
Perfluorobutane	355-25-9
Perfluoropentane	678-26-2
Perfluorohexane	355-42-0
Perfluorocyclobutane	115-25-3
HFC-23	75-46-7
HFC-32	75-10-5
HFC-41	593-53-3
HFC-43-10mee	138495-42-8
HFC-125	354-33-6
HFC-134	359-35-3
HFC-134a	811-97-2
HFC-152a	75-37-6
HFC-143	430-66-0
HFC-143a	420-46-2
HFC-227ea	431-89-0
HFC-236cb	677-56-5
HFC-236ea	431-63-0
HFC-236fa	690-39-1
HFC-245ca	679-86-7
HFC-245fa	460-73-1
HFC-365mfc	406-58-6

Appendix L: Halogenated Biphenyls, Terphenyls, Napthalenes	CAS – No.
Polybrominated biphenyls (PBBs)	Several
Polychlorinated biphenyls (PCBs)	Several
Polychlorinated terphenyls (PCTs)	Several

Appendix L: Halogenated Biphenyls, Terphenyls, Napthalenes	CAS – No.
Polybrominated terphenyls (PBTs)	Several
Polychlorinated naphthalenes (PCNs)	Several
Polybrominated naphthalenes (PBNs)	Several

Appendix M: Halogenated Diarylalkanes	CAS – No.
Monomethyl-dibromo-diphenyl methane	99688-47-8
Monomethyl-dichloro-diphenyl methane	81161-70-8
Monomethyl-tetrachloro-diphenyl methane	76253-60-6

Appendix N: Isocyanates	CAS – No.
1,3-bis(isocyanatomethyl)benzene (HDI)	3634-83-1
Diphenylmethane-4,4-diisocyanate (MDI)	101-68-8
Hexamethylene diisocyanate (HMDI)	822-06-0
Isophorone diisocyanate (IPDI)	4098-71-9
Tetramethylxylene diisocyanate (TMXDI)	2778-42-9
Toluene-2,4-diisocyanate (2,4-TDI)	584-84-9
Toluene-2,6-diisocyanate (2,6-TDI)	91-08-7

Appendix O: Ozone Depleting Substances	CAS – No.
Ozone-depleting substances (CFC's) class I	Several
Trichlorofluoromethane CFC-11	75-69-4
Dichlorofluoromethane CFC-12	75-71-8
1,1,2-Trichloro-1,2,2-trifluoroethane CFC-113	76-13-1
1,1,1-Trichloro-2,2,2-trifluoroethane CFC-113a	354-58-5
1,2-Dichloro-1,1,2,2-tetrafluoroethane CFC-114	76-14-2
1,1-Dichloro-1,2,2,2-tetrafluoroethane CFC-114a	374-07-2
Monochloropentafluoroethane CFC-115	76-15-3
Bromochlorodifluoromethane Halon-1211	353-59-3
Bromotrifluoromethane Halon-1301	75-63-8
Dibromotetrafluoroethane Halon-2402	124-73-2
Chlorotrifluoromethane CFC-13	75-72-9
Pentachlorofluoroethane CFC-111	354-56-3
1,1,2,2-Tetrachloro-1,2-difluoroethane CFC-112	76-12-0
1,1,1,2-Tetrachlorodifluoroethane CFC-112a	76-11-9
Heptachlorofluoropropane CFC-211	422-78-6
Hexachlorodifluoropropane CFC-212	3182-26-1
Pentachlorotrifluoropropane CFC-213	2354-06-5
Tetrachlorotetrafluoropropane CFC-214	29255-31-0
1,1,3-Trichloropentafluoropropane CFC-215	76-17-5
1,2,3-Trichloropentafluoropropane CFC-215	1652-81-9
1,1,1-Trichloropentafluoropropane CFC-215	4259-43-2
1,2,2-Trichloropentafluoropropane CFC-215	1599-41-3
Dichlorohexafluoropropane CFC-216	661-97-2
Monochloroheptafluoropropane CFC-217	422-86-6

Appendix O: Ozone Depleting Substances	CAS – No.
Carbon tetrachloride CCl4	56-23-5
1,1,1-Trichloroethane (Methylchloroform)	71-55-6
Methylbromide (CH3Br)	74-83-9
CHFBr2	1868-53-7
CHF2Br	1511-62-2
CH2FBr	373-52-4
C2HFBr4	353-93-5
C2HF2Br3	353-97-9
C2HF3Br2	354-04-1
C2HF4Br	354-07-4
C2H2FBr3	172912-75-3
C2H2F2Br2	75-82-1
C2H2F3Br	421-06-7
C2H3FBr2	358-97-4
C2H3F2Br	359-07-9
C2H4FBr	762-49-2
C3HFBr6	-
C3HF2Br5	-
C3HF3Br4	-
C3HF4Br3	666-48-8
C3HF5Br2	431-78-7
C3HF6Br	2252-79-1
C3H2FBr5	-
C3H2F2Br4	148875-98-3
C3H2F3Br3	431-48-1
C3H2F4Br2	460-86-6
C3H2F5Br	460-88-8
C3H3FBr4	-
C3H3F2Br3	666-25-1
C3H3F3Br2	460-60-6
C3H3F4Br	460-67-3
C3H4FBr3	75372-14-4
C3H4F2Br2	51584-25-9
C3H4F3Br	460-32-2
C3H5FBr2	453-00-9
C3H5F2Br	461-49-4
C3H6FBr	1871-72-3
Chlorobromomethane CH2BrCl	74-97-5
Ozone-depleting substances (CFC's) class II	Several
Dichlorofluoromethane HCFC-21	75-43-4
Monochlorodifluoromethane HCFC-22	75-45-6
Monochlorofluoromethane HCFC-31	593-70-4
Tetrachlorofluoroethane HCFC-121	354-14-3
Trichlorodifluoroethane HCFC-122	354-21-2
Dichlorotrifluoroethane HCFC-123	306-83-2

Appendix O: Ozone Depleting Substances	CAS – No.
Monochlorotetrafluoroethane HCFC-124	2837-89-0
Trichlorofluoroethane HCFC-131	359-28-4
Dichlorodifluoroethane HCFC-132	1649-08-7
Monochlorotrifluoroethane HCFC-133a	75-88-7
HCFC-141	-
Dichlorofluoroethane HCFC-141b	1717-00-6
HCFC-142	-
Monochlorodifluoroethane HCFC-142b	75-68-3
HCFC-151	-
Hexachlorofluoropropane HCFC-221	422-26-4
Pentachlorodifluoropropane HCFC-222	422-49-1
Tetrachlorotrifluoropropane HCFC-223	422-52-6
Trichlorotetrafluoropropane HCFC-224	422-54-8
HCFC-225	-
Dichloropentafluoropropane HCFC-225ca	422-56-0
Dichloropentafluoropropane HCFC-225cb	507-55-1
Monochlorohexafluoropropane HCFC-226	431-87-8
Pentachlorofluoropropane HCFC-231	421-94-3
Tetrachlorodifluoropropane HCFC-232	460-89-9
Trichlorotrifluoropropane HCFC-233	7125-84-0
Dichlorotetrafluoropropane HCFC-234	425-94-5
Monochloropentafluoropropane HCFC-235	460-92-4
Tetrachlorofluoropropane HCFC-241	666-27-3
Trichlorodifluoropropane HCFC-242	460-63-9
Dichlorotrifluoropropane HCFC-243	460-69-5
Monochlorotetrafluoropropane HCFC-244	134190-50-4
Trichloromonofluoropropane HCFC-251	421-41-0
Dichlorodifluoropropane HCFC-252	819-00-1
Monochlorotrifluoropropane HCFC-253	460-35-5
Dichlorofluoropropane HCFC-261	420-97-3
Monochlorodifluoropropane HCFC-262	421-02-3
Monochlorofluoropropane HCFC-271	430-55-7

Appendix P: Pesticides	CAS – No.
Acetamipirid	135410-20-7 160430-64-
Aldrine	309-00-2
Azinphos methyl	86-50-0
Azinphos ethyl	2642-71-9
Bromophos-ethyl	4824-78-6
Captafol	2425-06-1
Carbaryl	63-25-2
Chlorbenzilate	510-15-6
Chlordane	57-74-9
Chlordecone	143-50-0

Appendix P: Pesticides	CAS – No.
Chlordimeform	6164-98-3
Chlorfenvinphos	470-90-6
Clothianidin	210880-92-5
Coumaphos	56-72-4
Cyfluthrin	68359-37-5
Cyhalothrin, λ-	91465-08-6
Cypermethrin	52315-07-8
Deltamethrin	52918-63-5
Diazinon	333-41-5
o,p'-Dichlorodiphenyldichloroethane (o,p'-DDD)	53-19-0
p,p'-Dichlorodiphenyldichloroethane (p,p'-DDD)	72-54-8
o,p'-Dichlorodiphenyldichloroethylene (o,p'-DDE)	3424-82-6
p,p'-Dichlorodiphenyldichloroethylene (p,p'-DDE)	72-55-9
o,p'-Dichlorodiphenyltrichloroethane (o,p'-DDT) and its isomers; preparations containing DDT and its isomers	789-02-6
p,p'-Dichlorodiphenyltrichloroethane (p,p'-DDT) and its isomers; preparations containing DDT and its isomers	50-29-3
2,4-Dichlorophenoxyacetic acid, its salts and compounds	94-75-7
Dichlorprop	120-36-2
Dicrotophos	141-66-2
Dieldrine	60-57-1
Dimethoate	60-51-5
Dinoseb and salts	88-85-7
Dinotefuran	165252-70-0
Endosulfan, α-	959-98-8
Endosulfan, β-	33213-65-9
Endrine	72-20-8
Esfenvalerate	66230-04-4
Fenvalerate	51630-58-1
Heptachlor	76-44-8
Heptachlor epoxide	1024-57-3
Hexachlorocyclohexane (HCH), all isomers	608-73-1
Imidacloprid	105827-78-9 138261-41-3
Isodrin	465-73-6
Kelevane	4234-79-1
Lindane	58-89-9
Malathion	121-75-5
MCPA	94-74-6
MCPB	94-81-5
Mecoprop	93-65-2
Methamidophos	10265-92-6
Methoxychlor	72-43-5
Methyl parathion	298-00-0
Mevinophos	7786-34-7

Appendix P: Pesticides	CAS – No.
Mirex	2385-85-5
Monocrotophos	6923-22-4
Nitenpyram	150824-47-8 120738-89-8
Ethyl parathion	56-38-2
Perthane	72-56-0
Phosphamidon	13171-21-6
Profenophos	41198-08-7
Propetamphos	31218-83-4
Quinalphos	13593-03-8
Strobane	8001-50-1
Telodrin	297-78-9
Tiacloprid	111988-49-9
Thiamethoxam	153719-23-4
Toxaphene	8001-35-2
Tribufos (DEF)	78-48-8
2,4,5-Trichlorophenoxyacetic acid, salts and compounds	93-76-5
Trifluralin	1582-09-8

Appendix Q: Plasticizer	CAS – No.
Bis-(2-methoxyethyl) phthalate (DMEP)	117-82-8
Butylbenzyl phthalate (BBP)	85-68-7
Dibutyl phthalate (DBP)	84-74-2
Di-cyclohexyl phthalate (DCHP)	84-61-7
Diethylhexyl phthalate (DEHP)	117-81-7
Diethyl phthalate (DEP)	84-66-2
Diisobutyl phthalate (DIBP)	84-69-5
Diisodecyl phthalate (DIDP)	26761-40-0 68515-49-1
Diisononyl phthalate (DINP)	28553-12-0 68515-48-0
Di-isooctyl phthalate (DIOP)	27554-26-3
Di-iso-pentyl phthalate (DIPP)	605-50-5
Dimethyl phthalate (DMP)	131-11-3
Di-n-hexyl phthalate (DNHP)	84-75-3
Di-n-octyl phthalate (DNOP)	117-84-0
Dinonyl phthalate (DNP)	84-76-4
Di-n-pentyl phthalate (DnPP)	131-18-0
Di-n-propyl phthalate (DPRP)	131-16-8
n-Pentyl-isopentyl phthalate	776297-69-9
1,2-Benzenedicarboxylic acid, di-C_{6-8}-branched alkyl esters, C_7-rich (DIHP)	71888-89-6
1,2-Benzenedicarboxylic acid, benzyl C_{7-9}-branched and linear alkyl esters	68515-40-2

Appendix Q: Plasticizer	CAS – No.
1,2-Benzenedicarboxylic acid, di-C_{7-11}-branched and linear alkyl esters (DHNUP)	68515-42-4
1,2-Benzenedicarboxylic acid, dipentyl ester, branched and linear	84777-06-0
1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4

Appendix R: Polyaromatic Hydrocarbons (PAHs)	CAS – No.
Acenaphtylene	208-96-8
Acenaphthene	83-32-9
Anthracene	120-12-7
Benzo(a)anthracene*	56-55-3
Benzo(b)fluoranthene*	205-99-2
Benzo(j)fluoranthene*	205-82-3
Benzo(k)fluoranthene*	207-08-9
Benzo(ghi)perylene	191-24-2
Benzo(a)pyrene	50-32-8
Benzo(e)pyrene*	192-97-2
Chrysene*	218-01-9
Dibenzo(a,h)anthracene*	53-70-3
Fluoranthene	206-44-0
Fluorene	86-73-7
Indeno(1,2,3-cd)pyrene	193-39-5
Naphthalene	91-20-3
Phenanthrene	85-01-8
Pyrene	129-00-0

Recreational Equipment, Inc.
REI Co-op & Co-op Cycles
6750 S. 228th St.
Kent, WA 98032

Addendum 1: Summary of Revisions

The following changes are included in this November 2019 update of the REI RSL. The following revisions are based on modifications to REI's aspirations, internal processes and revisions made to the July 2019 bluesign® system substances list (BSSL).

These revisions incorporate new scientific knowledge on the toxicological profile of substances, international chemical regulations, revised risk assessments, feedback from product stewardship experts, industry best practices, and new analytical testing standards.

General

- Title updated to "Sustainable Chemistry Guide and Restricted Substances List (RSL)"
- Implementation date - updates to this version of the REI Guide & RSL must be implemented by January 1, 2020.

Sustainable Chemistry Overview

- NEW SECTION

Priority Chemicals

- "Long Chain PFAS" updated to "All PFC" based water repellents – REI has expanded our commitment to eliminating PFC's to all PFC based water repellents.

Tools & Resources

- bluesign® FINDER is now open access
- Higg Index Facility Environmental Module added

Restricted Substances List

- Testing Method: Extraction with Hexane/Dichloroethane added
- Testing Matrix: updated to bluesign® template matrix 9.0
- Aniline: USAGE BAN added
- Acrylamide: test method updated to LC-MS
- Isoquinoline (CAS 119-65-3): new chemical addition
- Solvents - N,N-Dimethylformamide (DMF) (CAS 68-12-2): exception added for lamination
- UV Stabilizers: test method updated to Extraction with Hexane/Dichloroethane // GC-MS
- Appendix D: Chlorinated Benzenes and Toluenes – Chlorotoluene (CAS 25168-05-2) added
- Appendix E: Chlorinated Phenols – 2,4-Dichlorophenol added
- Appendix N: Isocyanates - 1,3-bis(isocyanatomethyl)benzene (HDI) (CAS 3634-83-1) added
- Appendix Q: Plasticizers - 1,2-Benzenedicarboxylic acid, benzyl C7-9-branched and linear alkyl esters (CAS 68515-40-2) added

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Addendum 2: Supplier Acknowledgement of Receipt and Understanding

We, the "Supplier," hereby acknowledge that we have received and understand the Recreational Equipment, Inc. (REI) Restricted Substances List (RSL). We also acknowledge and understand that this RSL replaces any previous REI RSL. The requirements set forth in the RSL are in addition to, not a replacement of, other standards issued by REI.

Main REI point of contact			
Name:		Title:	
Company:		Email:	
Date (dd-mm-yy):			

We, the "Supplier," hereby understand and agree to the following REI RSL compliance expectations:

- Review the REI Guide & RSL annually[1];
- Adhere to all applicable legal requirements, regardless of whether those requirements are captured in this document;
- Have an independent process for ensuring compliance with this Guide & RSL and all legal requirements;
- Inform material suppliers and sub-contractors of relevant requirements and expectations;
- Maintain a chemical inventory and a valid chemical Safety Data Sheet (SDS) for each processing chemical stored and used on-site;
- Clearly post information about hazards associated with each chemical and chemical formulation in storage and use areas;
- Provide staff with appropriate training and protective equipment to prevent chemical exposure;
- Upon request, provide REI with existing compliance documentation or laboratory test results;
- Upon request, disclose the identity and use of each chemical used in materials for REI;
- Upon request, disclose the contact information for upstream suppliers and sub-contractors used to make REI materials and products;
- Complete and return Addendum 2: RSL *Acknowledgement of Receipt and Understanding* and Addendum 3: Material Supplier Survey as requested by REI as confirmation of accepting these terms; and
- Notify REI immediately if any materials or products cannot meet the requirements of the RSL using Addendum 4: RSL Failure Remediation Form.

RSL Testing: Material, component, and product testing may be required by REI at any stage of manufacturing to demonstrate compliance with the requirements of this document. Testing may be random or part of REI's scheduled testing program. All random testing is at REI's expense, unless the testing is in direct response to an identified RSL or regulatory compliance violation.

Existing Test Reports: If a material requested for RSL testing has been tested in the past year, you may provide the applicable test report to REI for review. REI will determine and advise whether the report can be accepted in lieu of additional testing.

[1] www.rei.com/assets/pdf/rei-restricted-substances-list/live.pdf

Transparency: Suppliers shall allow an authorized representative of REI to inspect the manufacturing facility where REI products or raw materials are developed, manufactured, or stored. Visits would be conducted during normal business hours.

REI reserves the right to cancel orders and terminate a business relationship if the Supplier fails to meet any of these requirements.

☐ AGREED BY THE SUPPLIER *(Please mark your agreement "☒"*

Recreational Equipment, Inc.
REI Co-op & Co-op Cycles
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Kent, WA 98032

Addendum 4: RSL Failure Remediation Form

This form initiates a Corrective Action Plan (CAP) for a restricted substance failure in a raw material *or* finished product. REI staff, the material supplier, and/or product manufacturer will provide the below information, as appropriate.

All corrective actions must be approved by REI prior to action. Submit completed form to ChemicalTesting@REI.com.

Part 1: RSL Failure Details (*to be completed by REI staff*); see attached test report/s

Restricted substance(s) (name & CAS):	
Detection level (ppm):	
REI limit (ppm)	
Test method:	
Test lab:	
Technical report#:	
TRF#:	

Part 2: Material Details *(to be completed by REI staff)*

REI Enovia Article #/s:	
Supplier article #/s:	
Material description:	
Material content:	
Material supplier:	
Colors affected:	

Part 3: Product Information for styles impacted by this failure *(to be completed by the supplier)*

Style/s:	
Season/s:	
Number of units with failure:	

Part 4: Manufacturing Information impacted by this failure *(to be completed by the product vendor)*

How many yards/units ordered?	
How many yards received?	
Semi-finished products on-site or yards of fabric in use?	
How many finished products on-site:	
How many products shipped:	

Part 5: Root Cause Analysis *(to be completed by the supplier)*

What is the source of the RS failure? (*please list the chemical product*)	
Has source been confirmed by review of SDS, chemical test, or other?	
Why was this chemical being used?	

What other REI materials may be contaminated?	
Other explanation:	

Attach additional pages if needed.

Part 6: Proposed Corrective Actions by Supplier *(to be completed by the Supplier)*
May include raw chemical testing, material re-testing, stopping production, sourcing alternatives, etc.

Describe proposed corrective actions	Person in charge	Due date	Comments

Part 7: Disposition *(to be completed by REI staff after reviewing relevant information)*

Part 8: Corrective Actions by REI *(to be completed by REI staff)*

	Steps of Corrective Action	Person in charge	Due date	Comments
1.				
2.				
3.				
4.				

Attach additional pages if needed.

Part 9: Corrective Actions Agreement *(to be completed once corrective actions are finalized)*

REI staff:		Supplier:	
Signature:		Signature	
Date signed:		Date signed:	