



ACCO Brands Corporation

Restricted Substances List Revision 4



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ACCO Brands Restricted Substances List

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Revision notes:

Revisions in document are highlighted in red font for easy identification. Refer to the Change Log for details.



1 Purpose

As part of ACCO Brands commitment to protect consumers, employees and the environment, ACCO Brands has a Restricted Substances List (“RSL”) to enable production of safe and legally compliant finished products including its packaging, raw materials, components, parts, subassemblies and OEM parts (collectively, “Products”). The RSL is an important part of ACCO Brands product stewardship and environmental sustainability programs.

This RSL is derived from a review of United States (“U.S.”), Canadian, and European Union (“EU”) regulatory requirements, noting that regulations in other countries are typically baselined from these markets. The chemicals proscribed within the RSL have been found to pose human health and environmental risks when they exceed certain concentrations. The restrictions within the RSL are applicable to all ACCO Brands Products and all manufacturing of ACCO Brands Products regardless of region of distribution and regardless of the region of manufacture unless specifically excluded in writing by ACCO Brands Global Product Compliance.

2 Scope

All suppliers, vendors, subcontractors, agents or affiliates of suppliers and all ACCO Brands manufacturing sites (collectively, “Suppliers”) must share the RSL with their sources of materials, parts, components, subassemblies, Products, labels, packaging, user manuals, chemicals, and other items supplied and used to produce ACCO Brands Products. Suppliers are responsible for ensuring that all their sources supply or otherwise deliver to Suppliers materials, parts, components, subassemblies, products, labels, packaging, user manuals, chemicals, and other items that are in compliance with limits and other restrictions described or referred to in the RSL.

Suppliers shall ensure that substances on the RSL which exceed the specified concentration limits are neither contained nor used in the manufacture of any Products, including but not limited to all articles (i.e., materials, parts, components, subassemblies, products, labels attached to Products), packaging (i.e., wood, paper or card-boxes, plastic material, containers etc.), user manuals, chemicals, and other items in ACCO Brands Products. The restricted substances cannot be contained in the product or used in the manufacture of the product and its components above the designated thresholds listed.

The RSL restrictions set forth in this Product Manual are strict. Negligent or inadvertent use of chemicals which exceed the specified concentration limits is not acceptable.



3 Summary Matrix of Restricted Substances and Potential Product Applications

Restricted Chemical Substance	Likely Office/School/Do It Yourself ("DIY") Products Applications
Asbestos	Chalk, pastels, products with heat insulators
Alkylphenol and Alkylphenol Ethoxylates	Bags, totes, pouches, planner covers using leather, textiles
AZO Amine Dyes	Bags, totes, pouches, planner covers using non-synthetic materials
BPA, Monomers or additives	Plastics (residual unreacted compounds), thermal paper
Disperse Dyes and Dyestuffs	Bags, totes, pouches, planner covers using synthetic materials including polyester/polyester blends/nylon, polypropylene
Dimethyl Fumarate (DMF)	Desiccants
Dioxins and Furans	Processing of paper and PVC (residual compounds)
Flame Retardants	Backpacks, electrical products that require flame retardant properties
Formaldehyde/Preservatives	White Boards, cork boards, drawer cabinets, or furniture using composite wood components
Organotin Compounds	Bags, totes or similar textiles products with anti-fungal properties
Ozone Depleting Substances /Chemicals (ODS/ODC)	Aerosols
PCBs and PCTs	Carbonless copy paper; flexible cables and EE components, materials with water-repellant properties
Pentachlorophenol	Bags, totes or similar textiles products with anti-fungal properties
Persistent Organic Pollutants	Various products
PFOS and PFOA	Bags, totes, other textile products or coated paper with water repellent properties
Polycyclic Aromatic Hydrocarbons (PAHs)	Product utilizing plastics; dyes; pigments; wood preservatives
Solvents	Used in processing (residual compounds)
Phthalates - Children's Products	School or learning products with PVC components
Phthalates - General Use A	Office, computer, school and DIY products, including paper clips, staplers, stapler removers, binders, locker accessories using PVC components, fastening tools, desktop products, gardening tools, mobile phone/tablet accessories; charging cables; electrical/battery operated products such as speakers, keyboards and mice using PVC wires and cords, materials used in bags and pouches



Restricted Chemical Substance	Likely Office/School/Do It Yourself ("DIY") Products Applications
Phthalates - General Use B	Office/DIY plug-in electrical products such as shredders, laminators and staplers using PVC wire and cord components; DIY glue guns, hot air guns
Heavy Metals - Children's Products	School or learning products, including binders, pencil pouches, exercise books using colored plastics, coatings or printing inks, batteries
Heavy Metals - General Use A	Office, DIY, computer and school products, including backpacks, notebooks, staplers, binders, locker accessories, gardening tools, fastening tools, desktop products, mobile phone/tablet accessories, white boards, glass boards, keyboards and mice using colored plastics, coatings or printing inks, batteries
Heavy Metals - General Use B	Office/DIY plug-in electrical products such as LED desk lamps, shredders, laminators and staplers using colored plastics, coatings or printing inks, batteries
Heavy metals, PBB, PBDE in Batteries	Calculators, laser pointers, erasers, speakers, other battery-powered items
Heavy metals in Packaging	Printing inks, adhesives, tapes

NOTE: This table provides likely ACCO Brands Product applications for the indicated restricted chemical substances and is not all inclusive.

4 Restricted Substances List

4.1 Restricted Substances

4.1.1 Asbestos

High risk materials/components: Filler, pigments, paints and talc/talcum powder used in chalks and pastels

Substance Name	CAS NO.	Limit, ppm	Test Method (Use Current version)
Actinolite	77536-66-4	Not detected	Microscopic examination – polarized light microscopy
Amosite	12172-73-5		
Anthophyllite	77536-67-5		
Chrysotile	12001-29-5		
Crocidolite	12001-28-4		
Tremolite	77536-68-6		

4.1.2 Alkylphenol and Alkylphenol Ethoxylates

High risk materials/components: Cleaning, dyeing, rinsing agents in material processing, detergents, leather finishing agents.

Substance Name	CAS NO.	Limit, ppm	Test Method (Use Current version)
Nonylphenol	Various	Sum of NP & OP: 100 Sum of NPEO & OPEO: 1000	Solvent extraction, LC- MS analysis
Nonylphenol ethoxylate	Various		
Octylphenol	Various		
Octylphenol ethoxylate	Various		

4.1.3 AZO Amine Dyes

High risk materials/components: Pigments, dyes and colorants used in non-synthetic and cotton fabric textiles

Aromatic Amines	CAS NO.	Limit, ppm	Test Method (Use Current version)
Benzidine	92-87-5	Not detected	Textiles: EN 14362-1 (Reporting Limit 20) Dyed Leather: EN ISO 17234-1 (Reporting Limit 20)
3,3'-Dichlorobenzidine	91-94-1		
3,3'-Dimethoxybenzidine (o-Dianisidine)	119-90-4		
3,3'-Dimethylbenzidine (o-Toluidine)	119-93-7		
4-Chloroaniline	106-47-8		
o-Toluidine (2-aminotoluene)	95-53-4		
2-Naphthylamine	91-59-8		
o-Anisidine	90-04-0		
Biphenyl-4-ylamine	92-67-1		
4-Chloro-o-toluidine	95-69-2		



Aromatic Amines	CAS NO.	Limit, ppm	Test Method (Use Current version)
o-Aminoazotoluene	97-56-3		
5-Nitro-o-toluidine	99-55-8		
4-Methoxy-m-phenylenediamine	615-05-4		
4,4'-Methylenedianiline	101-77-9		
4,4'-Methylenedi-o-toluidine	838-88-0		
6-Methoxy-m-toluidine	120-71-8		
4,4'-Methylene-bis-(2-chloro-aniline)	101-14-4		
4,4'-Oxydianiline	101-80-4		
4,4'-Thiodianiline	139-65-1		
4-Methyl-m-phenylenediamine	95-80-7		
2,4,5-Trimethylaniline	137-17-7		
2,4-Xylidine	95-68-1		
2,6-Xylidine	87-62-7		
4-Amino azobenzene	60-09-3		Textiles: EN 14362-3 (reporting Limit) Dyed Leather: EN ISO 17234-2 (Reporting Limit 20)

4.1.4 California Proposition 65 (U.S. distribution only)

Substance Name	CAS NO.	Limit, ppm	
Safe Drinking Water and Toxic Enforcement Act of 1986	List of chemicals known to the State of California to cause cancer or reproductive toxicity	Less than established Safe Harbor Exposure Levels (i.e., no significant risk level (NSRL) for carcinogens or maximum allowable dose level (MADL) for reproductive toxicants) or limits determined as a result of legal settlements	<p>Restriction is applied to the full up-to-date chemical list as defined on the OEHHA website: http://www.oehha.ca.gov/prop65/prop65_list/Newlist.html</p> <p>NOTE: ACCO Brands does not publish the names of the chemicals. Suppliers have to check both the present substances and the new additions to the chemicals list on the OEHHA website.</p>

4.1.5 Disperse Dye (Allergen) and Dyestuffs

High risk materials/components: Pigments, dyes and colorants used in Synthetic polyester/polyester blends/nylon/polypropylene textiles



Substance Name	CAS NO.	Limit, ppm	Test Method (Use Current version)
Disperse Blue 1	2475-45-8	Not detected	\$64 LFGB B82.02-10 (Reporting Limit 5) ISO 16373-2
Disperse Blue 3	2475-46-9		
Disperse Blue 35	12222-75-2		
Disperse Blue 106	12223-01-7		
Disperse Blue 124	61951-51-7		
Disperse Red 1	2872-52-8		
Disperse Orange 3	730-40-5		
Disperse Orange 11	82-28-0		
Disperse Orange 37/59/76	12223-33-51/13301-61-6/51811-42-8		
Disperse Orange 149	85136-74-9		
Disperse Yellow 3	2832-40-8		
Disperse Yellow 23	6250-23-3		
Disperse Yellow 34	1344-37-2		
Acid Red 26	3761-53-3	Prohibited	
Basic Red 9	569-61-9		
Basic Violet 14	632-99-5		
Direct Blue 6	2602-46-2		
Direct Black 38	1937-37-7		
Direct Red 28	573-58-0		

4.1.6 Dimethyl Fumarate (DMF)

High risk materials/components: Silica gel used in desiccant packages, moisture preventing agents, and mildew proofing agents for leather goods (anti-mold)

Substance Name	CAS NO.	Limit, ppm	Test Method (Use Current version)
DMF	624-49-7	0.1	Solvent extraction, GC-MS analysis (Reporting Limit 0.1)

4.1.7 Dioxins and Furans

High risk materials/components: **Processing of paper**

Substance Name	CAS NO.	Limit, ppm	Test Method (Use Current version)
Group 1		Sum of Group 1: 1 µg/kg	U.S. EPA 8290
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		



Substance Name	CAS NO.	Limit, ppm	Test Method (Use Current version)
Group 2			
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	39227-28-6	Sum of Group 1 & 2: 5 µg/kg	
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	19408-74-3		
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	57653-85-7		
1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6		
1,2,3,4,7,8-Hexachlorodibenzofuran	70648-26-9		
1,2,3,7,8,9-Hexachlorodibenzofuran	72918-21-9		
1,2,3,6,7,8-Hexachlorodibenzofuran	57117-44-9		
2,3,4,6,7,8-Hexachlorodibenzofuran	60851-34-5		
Group 3			
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9	Sum of Group 1, 2 & 3: 100 µg/kg	
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			
2,3,7,8-Tetrabromodibenzo-p-dioxin	50585-41-6	Sum of Group 4: 1 µg/kg	
1,2,3,7,8-Pentabromodibenzo-p-dioxin	109333-34-8		
2,3,7,8-Tetrabromodibenzofuran	67733-57-7		
2,3,4,7,8-Pentabromdibenzofuran	131166-92-2		
Group 5			
1,2,3,4,7,8-Hexabromodibenzo-p-dioxin	11099944-5	Sum of Group 4 & 5: 5 µg/kg	
1,2,3,7,8,9-Hexabromodibenzo-p-dioxin	110999-46-7		
1,2,3,6,7,8-Hexabromodibenzo-p-dioxin	110999-45-6		
1,2,3,7,8-Pentabromodibenzofuran	107555-93-1		



4.1.8 Flame Retardants (Electrical)

High risk materials/components: Casings, circuit boards, insulated electrical wires, connectors, USB ports, plugs, wires and cables

Substance Name	CAS NO.	Limit, ppm	Test Method (Use Current version)
Antimony trioxide	1309-64-4	1000	ICP-OES
Chlorinated paraffins (SCCP)	84082-38-2 (C10-21); 71011-12-6 (C12-13); 85536-22-7 (C12-14); 85535 - 84 - 8 (C10-C13)	1000	Solvent extraction, GC-MS or LC-MS analysis (reporting Limit 5)
Chlorinated paraffins (MCCP)	85535-85-9 (C14-C17)	1000	
Polybrominated biphenyls (PBBs)	59536-65-1 + various	1000	
Polybrominated diphenyl ethers (PBDE)	Various	1000	
Pentabromodiphenylether (PentaBDE)	32534-81-9 + various	1000	
Octabromodiphenylether (OctaBDE)	32536-52-0 + various	1000	
Tris-(2, 3-dibromopropyl) phosphate (TRIS or TDBPP)	126-72-7	Not detected	
Tris-(aziridinyl) phosphin oxide (TEPA)	545-55-1	1000	
Decabromodiphenyl ether (DecaBDE)	1163-19-5	1000	
Hexabromocyclododecane (HBCDD)	25637-99-4 + various	1000	
Tris(2-chloroethyl) phosphate (TCEP)	115-96-8	1000	
Tris (1,3-dichloro-2-propyl) phosphate (TDCPP)	13674-87-8	1000	
Tri(chloropropyl) phosphate(TCPP)	13674-84-5	1000	
Red Phosphorous	7723-14-0	Not detected	
Tri-o-cresyl phosphate, Tricresyl phosphate (TCP)	78-30-8, 1330-78-5	1000 ppm in mechanical plastic parts above 25 g	

4.1.9 Flame Retardants (Non-Electrical)

High risk materials/components: Natural and synthetic textile fibers, polyurethane foams with flame retardant properties

Substance Name	CAS NO.	Limit, ppm	Test Method (Use Current version)
Antimony trioxide	1309-64-4	1000	ICP-OES
Chlorinated paraffins (SCCP)	84082-38-2 (C10-21);		



Substance Name	CAS NO.	Limit, ppm	Test Method (Use Current version)
	71011-12-6 (C12-13); 85536-22-7 (C12-14); 85535 - 84 - 8 (C10- C13)	Not detected	Solvent extraction, GC-MS or LC-MS analysis (reporting Limit 5)
Chlorinated paraffins (MCCP)	85535-85-9 (C14- C17)		
Polybrominated biphenyls (PBBs)	59536-65-1		
Pentabromodiphenylether (PentaBDE)	32534-81-9		
Octabromodiphenylether (OctaBDE)	32536-52-0		
Tris-(2, 3-dibromopropyl) phosphate (TRIS or TDBPP)	126-72-7		
Tris-(aziridiny) phosphin oxide (TEPA)	545-55-1		
Decabromodiphenyl ether (DecaBDE)	1163-19-5		
Hexabromocyclododecane (HBCDD)	25637-99-4		
Tris(2-chloroethyl) phosphate (TCEP)	115-96-8		
Tris (1,3-dichloro-2-propyl) phosphate (TDCPP)	13674-87-8		
Tri(chloropropyl) phosphate(TCPP)	13674-84-5		
Tris (4-isopropylphenyl phosphate)	2502-15-0		

4.1.10 Monomers

High risk materials/components: Residual unreacted compounds during manufacturing processing (unlikely to be present in finished products)

Substance Name	CAS NO.	Limit, ppm	Test Method (Use Current version)
Acrylamide	79-06-1	Not Detected	EN 71-11
Acrylonitrile	107-13-1	1	Solvent extraction, GC-MS analysis
Bisphenol A (BPA)	80-05-7	Not Detected	Various by regulation
Butyl Acrylate	141-32-2	50	Solvent extraction, GC-MS analysis
Butyl Methacrylate	97-88-1		
Ethyl Acrylate	140-88-5	10	
Ethyl Methacrylate	80-62-6	50	
Styrene monomer	100-42-5	0.75	EN 71-11
Vinyl chloride monomer	75-01-4	1	80/766/EEC



4.1.11 Organotin Compounds

High risk materials/components: Materials with anti-fungal or antiseptic properties; heat-stabilized PVC materials **in inks, paints, plastics, etc.**

Substance Name	CAS NO.	Limit, ppm	Test Method (Use Current version)
Tributyltin (TBT / TBTO)	56573-85-4	Not detected	ISO 17353, Solvent extraction, GC-MS analysis (reporting Limit 1)
Triphenyltin (TPhT)	668-34-8		
Dibutyltin (DBT)	1002-53-5	0.1% by weight of tin (1000)	
Diocetyl tin (DOT)	15231-44-4		

4.1.12 Ozone Depleting Substances/Chemicals (ODS/ODC)

High risk materials/components: Aerosol propellant in spray cleaners and **PU** plastic foaming agents

Substance Name	CAS NO.	Limit, ppm	Test Method (Use Current version)	
Chlorofluorocarbons (CFCs)	Various	Prohibited	Solvent extraction, GC-MS analysis	
Halons				
Hydrochlorofluorocarbons (HCFCs)				
Hydrofluorocarbons (HFCs)				
Perfluorocarbons (PFCs)				
Sulphur hexafluoride (SF6)				2551-62-4
Nitrogen trifluoride (NF3)				7783-54-2

4.1.13 PCBs, PCNs and PCTs

High risk materials/components: Carbonless copy paper, plasticizers, adhesives, sealing materials, fillers, paints, and printing inks

Substance Name	CAS NO.	Limit, ppm	Test Method (Use Current version)
Polychlorinated Biphenyls (PCBs)	1336-36-3	Not detected	U.S. EPA 4020
Polychlorinated Terphenyls (PCTs)	61788-33-8		
Polychlorinated naphthalene (PCNs)	1321-65-9, 1335-88-2, 1321-64-8, 2234-13-1, 70776-03-3		

4.1.14 Polycyclic Aromatic Hydrocarbons (PAHs)

High risk materials/components: Petroleum-based Rubber, lubricants, dyes and plastics

Substance Name	CAS NO.	Limit, ppm		Test Method (Use Current version)
		Children's Products	General Use	
Acenaphthylene	83-32-9	Sum <5	Sum <10	AfPS GS 2014:01 PAK
Acenaphthene	208-96-8			



Substance Name	CAS NO.	Limit, ppm		Test Method (Use Current version)
Anthracene	120-12-7			
Fluorene	86-73-7			
Phenanthrene	85-01-8			
Pyrene	129-00-0			
Fluoranthene	206-44-0			
Benzo[a]anthracene	56-55-3	0.2	0.5	
Benzo[a]pyrene	50-32-8	0.2	0.5	
Benzo(e)pyrene	192-97-2	0.2	0.5	
Benzo[b]fluoranthene	205-99-2	0.2	0.5	
Benzo[g,h,i]perylene	191-24-2	0.2	0.5	
Benzo[k]fluoranthene	207-08-9	0.2	0.5	
Benzo[j]fluoranthene	205-82-3	0.2	0.5	
Chrysene	218-01-9	0.2	0.5	
Dibenzo[a,h]anthracene	53-70-3	0.2	0.5	
Indeno[c,d]pyrene	193-39-5	0.2	0.5	
Naphthalene	91-20-3	2		
SUM of 18		<5	<10	

4.1.15 PFOS and PFOA

High risk materials/components: Materials with water-repellent or oil-repellant properties, metal plating, cleaning materials, coating materials for paper, and PTFE plastics

Substance Name	CAS NO.	Limit, ppm	Test Method (Use Current version)
Perfluorooctane sulfonates (PFOS)*	2795-39-3	Not detected	CEN TS 15968 HPLC/MS – EPA 3550B
Perfluorooctanoic acid (PFOA), its salts and esters	335-67-1 3825-26-1 335-95-5 2395-00-8 335-66-0 376-27-2 3108-24-5	Not detected	CEN TS 15968

*PFOS Exemption: Photoresists or anti-reflective coatings for photolithography processes, photographic coatings applied to films, papers or printing plates.

4.1.16 Persistent Organic Pollutants (POPs)

High risk materials/components: Various

Substance Name	CAS NO.	Limit, ppm	
Regulation (EC) No 850/240 Persistent Organic Pollutants with amendments (EU) No 757/2010 and (EU) No 756/2010	POP list of substances subject to prohibitions / restrictions	Various	<p>A full up-to-date list of POPs as defined can be found on the European Commission website: http://ec.europa.eu/environment/archives/pops/index_en.htm</p> <p>NOTE: ACCO Brands does not publish names of the substances. Suppliers have to check both the present substances and the new additions to the list on the European Commission website</p>

4.1.17 Preservatives

High risk materials/components: PCP (fungicide used in paper), Phenol (felt tip markers, items with water)

Substance Name	CAS NO.	Limit, ppm	Test Method (Use Current version)
Pentachlorophenol (PCP)	87-86-5	5	LFGB 64 B 82.02-8
Formaldehyde - Textile or Leather	50-00-0	16 (Children's) 75 (General Use A/B)	Textiles: EN ISO 14184-1 Leather: ISO 17226-2
Formaldehyde – Composite Wood	50-00-0	HWPW-VC: 0.05	U.S. ASTM E1333
		HWPW-CC 0.05	
		PB: 0.09	
		MDF: 0.11	
		Thin MDF: 0.13	
Phenol (preservative in liquids)	108-95-2	10	Solvent extraction, GC-MS analysis or direct HS-GCMS analysis
Polychlorinated Phenols and their Salts	Various	Not detected	ISO 17070 (modified)/§64 LFGB BLV B82.02-8 (modified)

HWPW-VC=hardwood plywood veneer core; HWPW-CC= hardwood plywood composite core; MDF=medium density fiberboard; PB=particleboard

4.1.18 Halogens

High risk materials/components: Applications requiring flame retardancy; soft and/or flexible material.

Substance Name	CAS NO.	Limit, ppm	Test Method (Use Current version)
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Halogens	Chlorine 7782-50-5 + Various Bromine 7726-95-6 + Various	Chlorine: 900 Bromine: 900 Bromine + Chlorine: 1500	BS EN 14582 & IEC 61189-2
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4.1.19 REACH (EU distribution only)

Substance Name	CAS NO.	Limit, ppm	
Regulation (EC) No 1907/2005 Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)	REACH Candidate List of SVHC for authorization	0.1% by weight of an article	Restriction is applied to the full up-to-date candidate list of SVHC as defined on the ECHA website: http://echa.europa.eu/web/guest/candidate-list-table NOTE: ACCO Brands does not publish the names of the candidate substances . Suppliers have to check both the present list of substances and the new additions to the list on the ECHA website.
	REACH Restricted Substances included in Annex XVII	0.1% or as restricted by Annex XVII	Restricted Substances https://echa.europa.eu/substances-restricted-under-reach
	REACH Authorized Substances included into Annex XIV	Not detected	Restriction is applied to the list of substances subject to authorization as defined on the ECHA website: https://echa.europa.eu/authorisation-list NOTE: ACCO Brands does not publish the names of the authorized substances. Suppliers have to check both the present authorized substances and the new additions to the authorization list on the ECHA website.

4.1.20 Solvents

High risk materials/components: Residual compounds used in manufacturing processing (unlikely to be present in finished products)

Substance Name	CAS NO.	Limit, ppm	Test Method (Use Current version)
Xylene (all isomers)	Multiple	1000	Solvent extraction, GC-MS analysis
Volatile Organics	Multiple		
Pentachloroethane	76-01-7		



Substance Name	CAS NO.	Limit, ppm	Test Method (Use Current version)
Carbon Tetrachloride	56-23-5		
1,1,1-Trichloroethane	71-55-6		
1,1,1,2-Tetrachloroethane	630-20-6		
1,1,2,2-Tetrachloroethane	79-34-5		
Chloroform	67-66-3		
1,1,2-Trichloroethane	79-00-5		
1,1-Dichloroethylene	75-35-4		
Trichloroethylene (TCE)	79-01-6		
Tetrachloroethylene (Perchloroethylene)	127-18-4		
Cresol	Multiple		
N,N-Dimethylacetamide	127-19-5		
Dimethylsulphoxide	67-68-5		
Dimethyl formamide (DMF)	68-12-2		
Ethylene Glycol Monobutyl Ether	111-76-2		
Methylene Chloride	75-09-2		
N-Hexane	110-54-3		
N-Methyl Pyrrolidone	872-50-4		
4,4-Methylenebis	101-14-4		
Phenol	108-95-2		
Toluene	108-88-3		
2,4-Toluene Diisocyanate	584-84-9		
Toluene-2,6-Diisocyanate	91-08-7		
Benzene	71-43-2		
Ethoxyethanol	110-80-5		
Ethoxyethanol Acetate	111-15-9		
2-Methoxyethanol	109-86-4		
2-Methoxyethanol Acetate	110-49-6		
2-Methoxypropanol	1589-47-5		
2-Methoxypropanol Acetate	70657-70-4		
N-Methylpyrrolidone	872-50-4		
Formamide	75-12-7		
2-(2-butoxyethoxy)ethanol (DEGBE)	112-34-5	30,000 (3%)	
Hexachlorobutadiene (HCBD)	87-68-3	Prohibited	
Methanol	67-56-1		
Hexane, branched and linear	92112-69-1		
Bis (chloromethyl) ether	542-88-1		



Substance Name	CAS NO.	Limit, ppm	Test Method (Use Current version)
2,4,6-tri-tert-butylphenol (In Lubricating oils for Non-EE Products)	732-26-3		

4.2 Phthalates and Heavy Metals restrictions

Restrictions are based on type of product and summarized below.

	Children's Products	General Use "A" Products	General Use "B" Products
Number of restricted Phthalates (see table below)	18	13	4
Number of restricted Heavy Metals (see table below)	19	8	4
Typical Products	School products, including paper items, folders, organizational items, backpacks, locker accessories	<ul style="list-style-type: none"> Non-electrical items; Electrical items with frequent contact, such as cords, cases, mice, keyboards, docking, computer peripherals 	Electrical: Laminators, shredders, binding, punches, staplers, trimmers, sharpeners
Typical Phthalate Applications	Plasticizers, dyes, pigments, paints, inks, and adhesives		
Typical Heavy Metal Applications	Pigments, corrosion-resisting surface treatments, stabilizers in PVC, paints, inks, stiffener in rubber, content in alloys, solders, and additives in resins		
Rationale	<ul style="list-style-type: none"> Frequent user contact; Intended for children 	<ul style="list-style-type: none"> Frequent user contact; Commonly used by children 	<ul style="list-style-type: none"> Infrequent user contact; Uncommonly used by children

4.2.1 Phthalates Restrictions

Accessible component parts of Products which are physically exposed and not rendered inaccessible by reason of a sealed covering or casing ("Accessible Components") shall be compliant with the individual phthalate restrictions shown below:

4.2.1.1 Phthalates – Children's Products

Substance Name	CAS No.	Coating or Substrate	Limit, %	Test Method
DEHP	117-81-7	All accessible material		
DBP	84-74-2			
BBP	85-68-7			
DnOP	117-84-0			



Substance Name	CAS No.	Coating or Substrate	Limit, %	Test Method
DINP	28553-12-0 / 68515-48-8		0.10%	U.S. CPSC-CH-C1001-09.3
DIDP	26761-40-0 / 68515-49-1			
DIBP	84-69-5			
DnHP/DHP/DHEXP	84-75-3			
DMEP	117-82-8			
DIHP	7188-89-6			
DHNUP	68515-42-4			
DPP/DPENP	131-18-0			
DCHP	84-61-7			
DIPP	605-50-5			
N-pentyl-isopentylphthalate	776297-69-9			
DxHP	68515-50-4			
Di-C6-10 alkyl	68515-51-5/68648-93-1			
Bis-C5-alkyl	84777-06-0			

4.2.1.2 Phthalates – General Use A Products

Substance Name	CAS No.	Coating or Substrate	Limit, %	Test Method
DEHP	117-81-7	All accessible material	0.10%	U.S. CPSC-CH-C1001-09.3
DBP	84-74-2			
BBP	85-68-7			
DnOP	117-84-0			
DINP	28553-12-0			
DIBP	84-69-5			
DIDP	26761-40-0			
DnHP / DHP	84-75-3			
DMEP	117-82-8			
DCHP	84-61-7			
DxHP	68515-50-4			
Di-C6-10 alkyl	68515-51-5/68648-93-1			
Bis-C5-alkyl	84777-06-0			

4.2.1.3 Phthalates – General Use “B” Products

Refer to 4.3.2 Electrical and Electronic Products



4.2.2 Heavy Metals Restrictions

Heavy metals restrictions vary by test method (total or soluble) and by application (coating or substrate). Accessible Components of Products shall be compliant with the heavy metals restrictions shown below:

4.2.2.1 Heavy Metals – Children’s Products

This table identifies soluble method restrictions for coatings and total method restrictions for substrates.

Substance Name		Category (ppm)			Test Method
	Coating or Substrate	I (dry, brittle, powder like)	II (liquid / sticky)	III (scraped-off materials)	
Antimony (Sb)		45	11.3	60	For coatings - Soluble EN 71-3; For substrates - Total U.S. CPSC-CH-E1001 (Metal) U.S. CPSC-CH-E1002 (Non-metal)
Arsenic (As)		3.8	0.9	25	
Barium (Ba)		1,500	375	1,000	
Cadmium (Cd)		1.3	0.3	17	
Chromium (Cr [Cr - III])*		37.5	9.4	460	
Mercury (Hg)		7.5	1.9	60	
Selenium (Se)		37.5	9.4	460	
Lead (Pb)		2.0	0.5	23	
Aluminum (Al)		2250	560	28,130	
Boron (Bo)		1,200	300	15,000	
Chromium VI (Cr VI)		0.02	0.005	0.053	
Cobalt (Co)		10.5	2.6	130	
Copper (Cu)		622.5	156	7,700	
Manganese (Mn)		1,200	300	15,000	
Nickel (Ni)		75	18.8	930	
Strontium (Sr)		4,500	1,125	56,000	
Tin (Sn)		15,000	3,750	180,000	
Organic Tin		0.9	0.2	12	
Zinc (Zn)		3750	938	46,000	

NOTE: Chromium/Chromium III not required for Leather or metallic surface treatments. See below table for requirements.



4.2.2.2 Heavy Metals – Children’s Products

This table identifies total method restrictions for coatings.

Substance Name	Coating or Substrate	Category (ppm)	Test Method
Antimony (Sb)	Coating	1000	Total U.S. CPSC-CH-E1001 (Metal) U.S. CPSC-CH-E1002 (Non-metal)
Arsenic (As)		1000	
Barium (Ba)		1000	
Cadmium (Cd)		17	
Chromium (Cr [Cr - III])*		60	
Mercury (Hg)		Not detected	
Selenium (Se)		1000	
Lead (Pb)		90	

NOTE: Chromium/Chromium III not required for metallic surface treatments. See below table for requirements.

4.2.2.3 Heavy Metals – General Use “A” Products

This table identifies total method restrictions for coatings and substrates.

Substance Name	Coating or Substrate	Limit, ppm	Test Method
Antimony (Sb)	Coating/Substrate	1,000	Total U.S. CPSC-CH-E1001 (Metal) U.S. CPSC-CH-E1002 (Non-metal)
Arsenic (As)		100 or Not detected in wood products	
Barium (Ba)		36,000	
Cadmium (Cd)		35	
Chromium (Cr)*		1,000	
Lead		90	
Mercury (Hg)		200	
Selenium (Se)		1,000	

NOTE: Chromium/Chromium III not required for Leather or metallic surface treatments. See below table for requirements.

4.2.2.4 Heavy Metals – General Use “B” Products

Refer to 4.3.2 Electrical and Electronic Products



4.2.2.5 Heavy Metals – Metallic Surface Treatments and Leather Substrates – All product types

This table identifies restrictions for Children’s and General Use Products. Metallic surface treatments include electroplating and/or metallizing of any substrate (metal, plastic, fabric, paper). Leather includes pure leather or bonded/composite leather materials.

Coating or Substrate	Substance Name	Limit, ppm	Test Method
Leather Substrate (Children’s)	Total Lead	90	Total U.S. CPSC-CH-E1001 (Metal) Total U.S. CPSC-CH-E1002 (Non-metal) ISO 17075 (Cr VI leather only) EN71-3 (Cr VI) metallic treatments only)
	Soluble Cr VI	0.5	
Leather Substrate (General Use A or B)	Total Lead	90	
	Soluble Cr VI	0.5	
Metallic treatments, scrapable coating (Children’s)	Total Lead	90	
	Soluble Cr VI	0.053	
Metallic treatments, scrapable coating (General Use A or B)	Total Lead	90	
	Soluble Cr VI	2.0	

4.3 Restricted Substances in Specific Products

4.3.1 Batteries

Substance Name	CAS No.	Total or Soluble	Limit, ppm	Test Method (Use Current Version)
Lead and lead compounds	7439-92-1 + various	Total	40	U.S. CPSC-CH-E1001 (Metal) U.S. CPSC-CH-E1002 (Non-metal)
Cadmium and cadmium compounds	7440-43-9 + various		20	
Mercury and mercury compounds	7439-97-6 + various		Not detected (LT 5)	U.S. EPA SW-846 Test Methods 7471b (Solid) 7470a (Liquid)
Hexavalent Chromium and its compounds	Various		1000	IEC 62321 / ISO 3613 / U.S. EPA 3060
Polybrominated Biphenyls (PBB)	Various		1000	IEC 62321 / U.S. EPA 3540, 3541, 3546
Polybrominated Diphenyl Ethers (PBDE)	Various		1000	



4.3.2 Electrical and Electronic Products

Asterisk (*) items below require test reports to demonstrate compliance with RoHS¹

Substance Name	CAS No.	Total or Soluble	Limit, ppm	Test Method (Use Current version)
*Lead and lead compounds	7439-92-1 + various	Total	1000	IEC 62321 / U.S. EPA 3052
*Cadmium and cadmium compounds	7440-43-9 + various	Total	100	
*Mercury and mercury compounds	7439-97-6 + various	Total	1000	
*Hexavalent chromium (chromium VI) and hexavalent chromium compounds	Various	Total	1000	IEC 62321 / ISO 3613 / U.S. EPA 3060
*Polybrominated biphenyls (PBB)s	59536-65-1 + various	Total	Sum LT 1000	IEC 62321 / U.S. EPA 3540, 3541, 3546
*Polybrominated diphenyl ethers (PBDEs)	Various	Total	Sum LT 1000	
*Deca-brominated diphenyl-ethers (deca-BDE)	1163-19-5 + various	Total	Sum LT 1000	
Radioactive materials	Various	Total	Prohibited	N/A
Benzenamine N-phenyl, reaction products with styrene and 2,4,4-trimethylpentene (BNST)	68921-45-9	Total	Prohibited	U.S. EPA 3550C (GC-MS, MDL: 100 ppm)
Halogenated aromatic substances	95-50-1, 106-46-7, 608-93-5, 95-94-3, 634-90-2, 634-66-2, 120-82-1, 87-61-6, 118-74-1, 76253-60-6, 81161-70-8, 99688-47-8, 108-90-7	Total	In capacitors and transformers: 500 ppm for mono-halogenated or 50 ppm for poly-halogenated aromatic substances	
*DEHP	117-81-7		0.10%	IEC 62321
*DBP	84-74-2		0.10%	
*BBP	85-68-7		0.10%	
*DIBP	84-69-5		0.10%	

¹ For RoHS substances, the substance is acceptable only if present in a homogenous material at a quantity at or below the threshold limit for a non-exempt application, or if it is used in an exempt application per the RoHS Directive 2002/95/EC and 2011/65/EU.



4.3.3 Packaging

Substance Name	CAS No.	Limit, ppm	Method (Use Current version)
Lead (Pb)	7439-92-1	Total <100	Lead, Cadmium and Mercury: EPA 6020A (ICP/MS) Chromium VI: ISO/IEC 62321
Cadmium (Cd)	7440-43-9		
Chromium VI (CrVI)	18540-29-9		
Mercury (Hg)	7439-97-6		
Dimethyl fumarate	624-49-7	0.1	Solvent extraction, GC-MS analysis (Reporting Limit 0.1)
PVC	9002-86-2	Not detected	Beilstein Test (screening) and FTIR (confirmation)
Arsenic Compounds, applied to wood packaging	Various	Not detected	U.S. ASTM F963

4.3.4 Thermal Paper

Substance Name	CAS No.	Limit, ppm	Method (Use Current version)
BPA	80-05-7	ND	Solvent extraction, LC-MS analysis



5 Definitions

Term	Definition
Asbestos	Asbestos is a mineral fiber. Prior to global legislations, asbestos was added to a variety of Products to strengthen them and to provide heat insulation and fire resistance. If disturbed, asbestos material may release asbestos fibers, which can be inhaled into the lungs. Typical applications include insulation, friction pads, fillers, pigments, and paints.
Alkylphenol & Alkylphenol Ethoxylates (APE)	APEs are synthetic surfactants found in detergents, cleaning Products, pesticides, lubricants, paints, varnishes, and lacquers. The most common APEs are nonylphenol ethoxylates. APEs are persistent in the environment.
AZO Dyes	Azo dyes are the major colorants used in textile materials. Some azo dyes contain nitrogen-nitrogen double bonds that can form aromatic amines, which are known carcinogens. Typical applications include pigments, dyes and colorants.
California Proposition 65	California Proposition 65, is formerly known as the Safe Drinking Water and Toxic Enforcement Act of 1986 (Health and Safety Code, Chapter 6.6, Sections 25249.5 through 25249.13). The Office of Environmental Health Hazard Assessment (OEHHA) which is part of the California Environmental Protection Agency (Cal/EPA) administers the Proposition 65 program. California Proposition 65 imposes requirements on persons/businesses doing business in California that has Products containing specific listed chemicals. All Products sold or distributed within California containing a listed chemical must comply with Proposition 65 requirements for either risk exposure and/or labeling.
CAS #	Chemical Abstract Service #: A unique numeric identifier designated to one substance by the CAS registry.
Children's Product	A Product designed and marketed specifically to children aged 13 years or below, such as school supplies including Art Materials. These Products must comply with additional and appropriate youth requirements. Items classified as toys will need to meet additional toy requirements (See Age Grade definition).
Coatings	Paint and other similar surface-coating materials are a fluid, semi-fluid, or other material, with or without a suspension of finely divided coloring matter, which changes to a solid film when a thin layer is applied to a metal, wood, stone, paper, leather, cloth, plastic, or other surface. This term does not include printing inks or those materials



Term	Definition
	which actually become a part of the substrate, such as the pigment in a plastic article, or those materials which are actually bonded to the substrate, such as by electroplating or ceramic glazing.
Detection Limit	Minimum limit the laboratory can detect during testing for the substance. Not-detected means the substance was not detected above the minimum laboratory limit.
Disperse Dyes	Disperse dyes are the only water insoluble dyes that dye polyester and acetate fibers. Disperse dye molecules are the smallest dye molecules among all dyes and is a skin-sensitizer. Typical applications include pigments, dyes and colorants.
Dimethyl Fumarate (DMF)	DMF is used as a biocide in desiccant packets and wood Products to prevent mold growth during storage or transport in a humid climate. DMF has been associated with allergic reactions after skin contact. Typical applications include moisture prevention agents and mildew proofing agents.
Dioxins and Furans	Dioxins and furans are short names for a family of toxic substances that all share a similar chemical structure. They are not commercial chemical Products but are trace level unintentional byproducts of most forms of combustion and several industrial chemical processes. Some trace amounts of dioxins and furans can be found in polyvinyl (PVC) finished Products.
Electrical and Electronic Product	Product that operate using electrical power through batteries, alternating current or direct current. They also include wireless devices, cables and USB drives.
Flame Retardants	Compounds added to manufactured materials, such as plastics and other materials, and surface finishes and coatings that inhibit, suppress, or delay the production of flames to prevent the spread of fire.
General Use Products	A Product intended to be used by adults, or those that may be used by children, but are not specifically intended to be used by children. This term comes from the U.S. Consumer Product Safety Improvement Act legislation, but is used as a corporate designation.
General Use "A" Products	A subset of General Use Products intended to be used by adults, or those that may be used by children, but are not specifically intended to be used by children. This term comes from the U.S. Consumer Product Safety Improvement Act legislation, but is used as a corporate designation. Typical Products include non-electrical/electronic items and electrical/electronic items with frequent contact, such as cords, cases mice and keyboards.



Term	Definition
General Use “B” Products	A subset of General Use Products intended to be used by adults and unlikely to be by children. Typical Products include electrical/electronic items such as laminators, shredders, binders etc.
Heavy Metals	<p>The term “heavy metal” refers to any metallic chemical element that has a relatively high density and is toxic or poisonous at low concentrations. They are used in substrates and coatings as pigments or to provide certain functional properties.</p> <p>Heavy metals become toxic when they are not metabolized by the body and accumulate in the soft tissues. In consumer Products, heavy metals may enter the human body through Inhalation; oral contact directly with an item or indirectly through hand-to-mouth; or absorption through the skin.</p> <p>Heavy metals have broad applications such as pigments, batteries, plating, and stabilizers in PVC, corrosion-resisting treatments, anti-rust treatments, solders, curing agents for rubber, foaming agents.</p>
Leather	Leather includes 100% leather Products and bonded/composite leather Products. Faux or imitation leather that contains no animal skin leather is not included.
Limit, ppm	Maximum allowable limit of the substance allowed in finished Products, usually expressed in parts per million (ppm). The limit may be expressed in other units, such as mg/kg, µg/g (both equivalent to ppm), or percent (%) by weight.
Metallic Surface Treatment	Application of a metallic layer (such as chromium, nickel, tin, gold, silver, aluminum, or other) to a surface, providing cosmetic or performance properties. The application may be through electroplating, vapor deposition, or transfer of metallic films onto any type of substrate (metal, plastic, paper, fabric, leather, wood or other surface). Generally, electroplating and vapor deposition layers are bonded to the substrate material and cannot be scrapped off. Metallic surface treatments that can be scrapped off are considered coatings.
Monomers	Monomers are molecules that may bind chemically to other molecules to form polymer(s).
Organotin Compounds	Organotin stabilizers are used to prevent changes in polyvinyl chloride upon exposure to light and heat. Organotin compounds are used as pesticides, stabilizers for polyvinyl chloride, curing catalysts for silicone resins, paint thinners and fire retardants.
Ozone Depleting Substances/Chemicals (ODS/ODC)	Ozone depleting substances (ODSs) are those substances which deplete the ozone layer and are widely used in refrigeration, air conditioning, fire extinguishing, in dry cleaning, as solvents for cleaning, electronic equipment and as agricultural fumigants.



Term	Definition
Packaging	Packaging is defined as all materials of any nature to be used for the containment, protection, handling, delivery and preservation of Products from the producer to the user or consumer.
Perfluorooctane sulfonates (PFOS) and PolyfluoroOctanoic acid (PFOA)	PFOA is a long-chain per-fluorinated chemical (LCPFC) that does not occur naturally in the environment. LCPFCs are synthetic chemical substances with special properties and used in manufacturing and industrial applications. PFOS is a man-made fluoro-surfactant and global pollutant. Typical applications include photo-coating materials, metal plating, cleaning materials, coating material for paper, plastic stabilizers and coating material for packaging.
Persistent Organic Pollutants (POPs)	POPs are organic compounds that are resistant to environmental degradation through chemical, biological, and photolytic processes.
Phthalates	Phthalates are a family of chemicals used in plastics and many other Products used to soften and increase the flexibility of plastic and vinyl. They are classified as endocrine disruptors and may cause reproductive harm. Typical applications include plasticizers, dyes, pigments, paints, inks, and adhesives.
Polychlorinated Biphenyls (PCBs) and Polychlorinated Terphenyls (PCTs)	PCBs are among a group of man-made chemicals that are known as Persistent Organic Pollutants (POPs). They are used in fluids in electrical equipment and in sealants, adhesives, plastics paints, insulating oils and flame retardants.
Polycyclic Aromatic Hydrocarbons (PAHs)	PAHs are persistent chemicals that are created when Products like coal, oil, gas, and garbage are burned but the burning process is not complete. PAHs can exist in over 100 different combinations.
Polyvinyl Chloride (PVC)	PVC is the third-most widely produced synthetic plastic polymer, after polyethylene and polypropylene. PVC comes in two basic forms: rigid (sometimes abbreviated as RPVC) and flexible. The rigid form of PVC is used in construction for pipe and in profile applications such as doors and windows. The flexible form achieved by the addition of plasticizers such as phthalates is used plumbing, inflatable Products, etc.
Preservatives	A preservative is a substance that is added to Products such as foods, pharmaceuticals, paints, biological samples, wood, etc. to prevent decomposition by microbial growth or by undesirable chemical changes. Formaldehyde is a commonly used preservative used on wood.



Term	Definition
REACH	<p>REACH is the Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals. REACH is the European Union (EU) regulation on chemicals and their safe use. The law entered into force on 1 June 2007. REACH establishes procedures for collecting and assessing information on the properties and hazards of substances. The REACH regulation requires substances manufactured or imported into the EU, including substances in preparations in quantities over one metric ton per year, to be registered unless exempt.</p> <p>A substance of very high concern (SVHC) is a <u>chemical substance</u> (or part of a group of chemical substances) for which it has been proposed that the use within the <u>European Union</u> be subject to authorization under the <u>REACH Regulation</u>.</p>
RoHS	<p>Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 (known RoHS2) restricts the use of certain hazardous substances (lead, mercury, hexavalent chromium, cadmium, polybrominated biphenyls (PBB) and polybrominated diphenyl ethers (PBDE)) in electrical and electronic equipment. Diphenyl ethers (PBDE) at less than 1000ppm in homogeneous materials. RoHS2 became a European law on 21 July 2011 and replaced the previous Directive 2002/95/EC (known as RoHS1).</p>
Solvents	<p>Solvents are liquids or gases that can dissolve or extract other substances. They are used to dissolve grease, oil, and paint; to thin or mix pigments, paint, glue, pesticides, and epoxy resins; to clean electronics, automotive parts, tools, and engines; and to make other chemicals.</p>
Test Method	<p>Industry standard test method for sample preparation and detection of the chemical substances.</p>



APPENDIX A – Restricted Substances List Revision 4 - Change Log

Revision notes:

Revisions in document are highlighted in red font for easy identification.

Section	Item	Change Description
---	Revision History	Version to Revision 4
4.1.2	Alkylphenol and Alkylphenol Ethoxylates	Version 3 indicated only one CAS number for each of these, but there are groups of substances for each. Revised to "Various" to cover additional substances.
4.1.5	Dispersed Dyes	Typo in Version 3 incorrectly identified this as Disperse Dye 126 . Corrected to Disperse Dye 124 . CAS Number remains the same. No limit change
4.1.5	Dispersed Dyes	REACH substance
4.1.8	Flame Retardants (Electrical)	Identified SCCP and MCCPs; Added 3 SCCPs (benchmarking to EE industry)
4.1.9	Flame Retardants (Non-Electrical)	
4.1.10	Monomers	Limit is dependent on test method. Food contact requirements use different test methods, so indicating one limit value is not feasible except for "Not Detected."
4.1.11	Organotin Compounds	Clarified the high-risk materials: "...heat-stabilized PVC materials in inks, paints, plastics, etc. "
4.1.12	Ozone Depleting Substances/Chemicals	Clarified the high risk materials: "Aerosol propellant in spray cleaners and PU plastic foaming agents."
4.1.13	PCBs, PCNs, and PCTs	Added these CAS numbers; benchmarking to EE industry
4.1.15	PFOS and PFOA	Clarified the high-risk materials: "...coating materials for paper, and PTFE plastic stabilizers "
4.1.18	Halogens	Changed section title from "PVC" to " Halogens ." Per Kensington, the requirements identified in this section were classified as Halogen-free, which is broader than PVC free. Changed test method to BS EN 14582 & IEC 61189-2.
4.1.19	REACH (EU distribution only)	Clarified various wordings to be consistent with the REACH regulation.
4.2	Phthalates and Heavy Metals Requirements	Revised number of phthalates for Children's products from 15 to 18; General Use A from 9 to 13; Revised Typical Products: General Use A Electrical products with frequent contact: Added " docking station, computer peripherals " per Kensington request.
4.2.1.1	Phthalates - Children's Products	REACH SVHCs
4.2.1.2	Phthalates - General Use A Products	REACH SVHCs
4.2.1.3	Phthalates - General Use B Products	Deleted table and referred user to Section 4.3.2 Electrical and Electronic Products to remove duplicative requirements.
4.2.2.3	Heavy Metals - General Use A Products	Revised to calibrate with retailer customer requirements.
4.2.2.4	Heavy Metals - General Use B Products	Deleted table and referred user to Section 4.3.2 Electrical and Electronic Products to remove duplicative requirements.



Section	Item	Change Description
4.2.2.5	Heavy Metals - Metallic Surface Treatments and Leather Substrates	Revised to calibrate with retailer customer requirements.
4.2.2.5	Heavy Metals - Metallic Surface Treatments and Leather Substrates	Revised to calibrate with retailer customer requirements.
4.2.2.5	Heavy Metals - Metallic Surface Treatments and Leather Substrates	Revised to an appropriate "general use" limit after consultation with Exponent. The original value was based on children's products.
4.3.2	Electrical and Electronic Products	These four (4) phthalates added to RoHS 3, which includes internal components. Requirement effective 22 Jul 2019. Reference IEC 62321 added. ACCO requirement for these four (4) phthalates on electrical products was limited to accessible components only, so RoHS requirement is now more stringent.