



**American Apparel & Footwear Association (AAFA)
Restricted Substance List (RSL)
February 2009
FINAL
Release 4**

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Introduction

This Restricted Substances List (RSL) was created by a special working group of the American Apparel & Footwear Association's (AAFA) Environmental Task Force. The RSL is intended to provide apparel and footwear companies with information related to regulations and laws that restrict or ban certain chemicals and substances in finished home textile, apparel, and footwear products around the world.

It is our hope that this RSL will serve as a practical tool to help those individuals in textile, apparel and footwear companies, and their suppliers, responsible for environmental compliance throughout the supply chain, to become more aware of various national regulations governing the amount of substances that are permitted in finished home textile, apparel and footwear products.

Our effort is to create a dynamic and useful instrument. The RSL will be updated on a regular basis and will be supplemented with additional resources to help officials in these companies undertake responsible chemical management practices in the aforementioned finished products.

Note on Release 4 – February 2009:

A list of changes from *Release 3 - July 2008* to *Release 4 - February 2009* is contained at the end of this document.

For more information or questions on the AAFA RSL please contact [Veronica Bemis](#) at 703-797-9049.

Methodology

The RSL includes only those materials, chemicals, and substances that are restricted or banned in finished home textile, apparel, and footwear products because of a regulation or law. In each case, the RSL identifies the most restrictive regulation.

The RSL does not include regulations that restrict the use of substances in production processes or in the factory; rather the focus is on whether or not the substance can be found in finished home textile, apparel, and footwear products at a certain level.

A. Structure

For each substance the RSL identifies the following features:

1. CAS number
2. Common chemical or color name
3. Information on the Restriction/Limit on Final Product or Tested Component
 - a. Restriction Level
 - b. Country where that Restriction/Limit is found
 - c. Test Method
 - d. Other countries that maintain equal or less restrictions
 - e. Comments (if applicable)

B. What is Included and What is Not

The RSL is not intended to address product safety regulations outside the chemical management area – such as Consumer Product Safety Commission (CPSC) regulations related to small parts. Moreover, it is not structured to cover toys, automotive textiles, or other industrial textiles. This list does not include restrictions related to use of substances in packaging or related materials.

The following legislation is not listed because there are not regulatory concentration limits but may warrant evaluation for applicability.

1. The US EPA, following the Montreal Protocols, promulgated legislation on ozone depleting compounds. Class I and Class II listed chemicals used in the process of manufacturing of product or packaging requires special labeling as detailed in the regulation. Residuals of the chemical components in the product or package are not necessary to trigger the requirement. Minor usage in textiles as a spot cleaner is acceptable.

2. California Proposition 65 requires labeling for products containing chemicals known to the state to cause cancer. Typically labeling requirements are dependent on consumer exposure to the chemical, not the concentration in the product. Exposure levels have been determined for certain chemicals under certain applications, products, or use through legal settlements in the State of California. Ingredients for which there have been legal settlements are included on the list.

C. Technical Notes

1. Chemical nomenclature can take several forms. Technical chemical names may take numerous forms. It is the responsibility of the user to verify synonyms of any regulated chemicals referenced.
2. It is possible that regulated components may be present in raw materials below the levels that require reporting on Material Safety Data Sheets (Meds). Care should be taken to verify the presence of all regulated ingredients regardless of the concentration.
3. This list represents the known and applicable standards at the time of publication; any inaccuracy or omission is not the responsibility of AAFA.

About AAFA

The American Apparel & Footwear Association (AAFA) is the national trade association representing apparel, footwear and other sewn products companies, and their suppliers, which compete in the global market. AAFA's mission is to promote and enhance its members' competitiveness, productivity and profitability in the global market by minimizing regulatory, commercial, political, and trade restraints.

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Dyes *

CAS Number	Chemical Name/Color Index Name	Restriction / Limit on Final Product or Tested Component	Country	Regulation	Test Method [detection limit]	Other Countries, U.S. States that also Regulate this Substance	Comment
AZO Dyes							
60-09-3	4-Amino azobenzene	Not Detected (below detection limits - see test method)	European Union and China	European Union Directive of the European Parliament: relating to restrictions on the marketing and use of certain dangerous substances and preparations (Azocolourants) The National Standard of the People's Republic of China GB	Textiles (EU): EN 14362-1 Polyester(EU): EN 14362-2 Leather(EU): CEN ISO/TS [detection limit is 30 ppm] Textiles(China) GB/T 17592-2006 [detection 20 ppm] Test Method for 4-Aminoazobenzene (pAAB) confirmation § 64 LFGB B 82.02-9	South Korea	
97-56-3	<i>o</i> -Aminoazotoluene						
92-67-1	4-Aminodiphenyl						
99-55-8	2-Amino-4-nitrotoluene						
90-04-0	<i>o</i> -Anisidine						
92-87-5	Benzidine						
106-47-8	<i>p</i> -Chloroaniline						
95-69-2	4-Chloro- <i>o</i> -toluidine						
120-71-8	<i>p</i> -Cresidine						
615-05-4	2,4-Diaminoanisole						
101-77-9	4,4'-Diamino-diphenylmethane						
91-94-1	3,3'-Dichlorobenzidine						
119-90-4	3,3'-Dimethoxybenzidine						
119-93-7	3,3'-Dimethylbenzidine						
838-88-0	3,3'-Dimethyl-4,4'-diamino-diphenylmethane						
101-14-4	4,4'-Methylene-bis-(2-chloroaniline)						
91-59-8	2-Naphthylamine						
101-80-4	4,4'-Oxydianiline						
139-65-1	4,4'-Thiodianiline						
95-80-7	2,4-Toluenediamine						
95-53-4	<i>o</i> -Toluidine						
137-17-7	2,4,5-Trimethylaniline						
95-68-1	2,4-Xylidine (China only)						
87-62-7	2,6-Xylidine (China only)						
Disperse Dyes							
2475-45-8	Disperse Blue 1	Not Detected (below detection limits - see test method)	Germany	German Food, Feed and Commodities Law §30 (LFGB §30)	§64 LFGB B82.02-10		
56524-77-7 or 56524-76-6	Disperse Blue 35						
12223-01-7	Disperse Blue 106						
61951-51-7	Disperse Blue 124						
730-40-5	Disperse Orange 3						
13301-61-6	Disperse Orange 37/76						
2872-52-8	Disperse Red 1						
2832-40-8	Disperse Yellow 3						

* AZO Dyes which, by reductive cleavage of one or more AZO groups, may release one or more of the following aromatic amines

Solvents

CAS Number	Chemical Name/Color Index Name	Restriction / Limit on Final Product or Tested Component	Country	Regulation	Test Method [detection limit]	Other Countries, U.S. States that also Regulate this Substance	Comment
76-01-7	Pentachloroethane	0.1% (mass)-	Germany and Japan	Germany - Verordnung (Prohibition of Chemicals Ordinance), section 16 Japan Law for the Control of Household products Harmful Substances	Headspace for practice - not specified by the regulation)		
56-23-5	Carbon Tetrachloride						
630-20-6	1,1,1,2-Tetrachloroethane						
79-34-5	1,1,2,2-Tetrachloroethane						
67-66-3	Chloroform						
79-00-5	1,1,2-Trichloroethane						
75-35-4	1,1-Dichloroethylene						
71-55-6	1,1,1-Trichloroethane						
127-18-4	Tetrachloroethylene (Japan only)						

Pesticides

CAS Number	Chemical Name/Color Index Name	Restriction / Limit on Final Product or Tested Component	Country	Regulation	Test Method [detection limit]	Other Countries, U.S. States that also Regulate this Substance	Comment
93-72-1	2-(2,4,5-trichlorophenoxy) propionic acid, its salts and compounds	Not Detected	Switzerland and Finland (those pesticides without indication are regulated under Switzerland only)	Switzerland: Art. 9, 11, 35 and 61 Ordinance relating to Environmentally Hazardous Substances(Ordinance on Substances) Finland: Ministry of Environment Government Decree on persistent organic substances (735/2002)	U.S. EPA Method 8081A/ 8151A - (industry practice not specified by the regulation)	Japan, South Korea	For Dieldrin, PCP, and TeCP, South Korea restrictions apply at different levels for baby clothing (<24 months) and bedclothes.
93-76-5	2,4,5-trichlorophenoxyacetic acid, its salts and compounds						
309-00-2	Aldrin (both Switzerland and Finland)						
57-74-9	Chlordane (both Switzerland and Finland)						
72-54-8	Dichloro-diphenyl-dichloro ethane (DDD)						
72-55-9	Dichloro-diphenyl-dichloro ethylene (DDE)						
50-29-3	Dichloro-diphenyl-trichloro ethane (DDT) (both Switzerland and Finland)						
60-57-1	Dieldrin (5) (both Switzerland and Finland)						
72-20-8	Endrine (both Switzerland and Finland)					Japan, South Korea	
76-44-8	Heptachlorine (both Switzerland and Finland)						
1024-57-3	Epoxy-heptachlorine						
118-74-1	Hexachlorobenzene (both Switzerland and Finland)						
608-73-1	Hexachlorocyclohexane (HCH, all isomers) except gamma-hexachlorocyclohexane (except linande [58-89-9] in medical products)						

Pesticides (continued)

CAS Number	Chemical Name/Color Index Name	Restriction / Limit on Final Product or Tested Component	Country	Regulation	Test Method [detection limit]	Other Countries, U.S. States that also Regulate this Substance	Comment
465-73-6	Isodrin	Not Detected	Switzerland and Finland (those pesticides without indication are regulated under Switzerland only)	Switzerland: Art. 9, 11, 35 and 61 Ordinance relating to Environmentally Hazardous Substances (Ordinance on Substances) Finland: Ministry of Environment Government Decree on persistent organic substances (735/2002)	U.S. EPA Method 8081A/8151A - (industry practice - not specified by the regulation)		
4234-79-1	Kelevane						
143-50-0	Kepone (Chlordecone)						
58-89-9	Lindane						
72-43-5	Methoxychlor						
2385-85-5	Mirex (Finland only)						
72-56-0	Perthane						
82-68-8	Quintozene						
8001-50-1	Strobane						
297-78-9	Telodrin						
8001-35-2	Toxaphene (both Switzerland and Finland)						
1336-36-3	Halogenated biphenyls, including Polychlorinated biphenyl (PCB) (both Switzerland and Finland)						
53469-21-9 and Various	Halogenated terphenols, including Polychlorinated terphenyl (PCT)						
Various	Halogenated naphthalenes						
Various	Halogenated diarylalkanes						
	Halogenated diphenyl methanes, including						
99688-47-8	Monomethyl-dibromo-diphenyl methane						
81161-70-8	Monomethyl-dichloro-diphenyl methane						
76253-60-6	Monomethyl-tetrachloro-diphenyl methane						
87-86-5	Pentachlorophenol (PCP), its salts and compounds						
25167-83-3	Tetrachlorophenol (TeCP), its salts and compounds					South Korea	

Asbestos

CAS Number	Chemical Name/Color Index Name	Restriction / Limit on Final Product or Tested Component	Country	Regulation	Test Method [detection limit]	Other Countries, U.S. States that also Regulate this Substance	Comment
77536-66-4	Actinolite	Not detected	European Union	European Union Council Directive 76/769/EEC and 99/77/EC	Microscopic examination; minimum magnification 1-250, attached; ratio of fiber length to diameter is at polarized light filter least 3:1-(industry practice - not specified by the regulation)		
12172-73-5	Amosite						
77536-67-5	Anthrophyllite						
12001-29-5	Chrysotile						
12001-28-4	Crocidolite						
77536-68-6	Tremolite						

Fluorinated Greenhouse Gases

CAS Number	Chemical Name/Color Index Name	Restriction / Limit on Final Product or Tested Component	Country	Regulation	Test Method [detection limit]	Other Countries, U.S. States that also Regulate this Substance	Comment
2551-62-4	Sulfur hexafluoride - SF ₆	May Not be Used	European Union	European Union Council Directive 2006/842/EC	Headspace for components (industry practice - not specified by the regulation)		
	Hydrofluorocarbons (HFCs):						
75-46-7	HFC-23 - CHF ₃						
75-10-5	HFC-32 - CH ₂ F ₂						
593-53-3	HFC-41 - CH ₃ F						
138495-42-8	HFC-43-10mee - C ₅ H ₂ F ₁₀						
354-33-6	HFC-125 - C ₂ HF ₅						
359-35-3	HFC-134 - C ₂ H ₂ F ₄						
811-97-2	HFC-134a - CH ₂ FCF ₃						
75-37-6	HFC-152a - C ₂ H ₄ F ₂						
430-66-0	HFC-143 - C ₂ H ₃ F ₃						
420-46-2	HFC-143a - C ₂ H ₃ F ₃						
431-89-0	HFC-227ea - C ₃ HF ₇						
677-56-5	HFC-236cb - CH ₂ FCF ₂ CF ₃						
431-63-0	HFC-236ea - CHF ₂ CHFCF ₃						
690-39-1	HFC-236fa - C ₃ H ₂ F ₆						
679-86-7	HFC-245ca - C ₃ H ₃ F ₅						
460-73-1	HFC-245fa - CHF ₂ CH ₂ CF ₃						
406-58-6	HFC-365mfc - CF ₃ CH ₂ CF ₂ CH ₃						
	Perfluorocarbons (PFCs):						
75-73-0	Perfluoromethane - CF ₄						
76-16-4	Perfluoroethane - C ₂ F ₆						
76-19-7	Perfluoropropane - C ₃ F ₈						
355-25-9	Perfluorobutane - C ₄ F ₁₀						
678-26-2	Perfluoropentane - C ₅ F ₁₂						
355-42-0	Perfluorohexane - C ₆ F ₁₄						
115-25-3	Perfluorocyclobutane - c-C ₄ F ₈						

Dioxins & Furans

CAS Number	Chemical Name/Color Index Name	Restriction / Limit on Final Product or Tested Component	Country	Regulation	Test Method [detection limit]	Other Countries, U.S. States that also Regulate this Substance	Comment
1746-01-6 40321-76-4 51207-31-9 57117-31-4	Group 1) 2,3,7,8-Tetrachlorodibenzo-p-dioxin 1,2,3,7,8-Pentachlorodibenzo-p-dioxin 2,3,7,8-Tetrachlorodibenzofuran 2,3,4,7,8-Pentachlorodibenzofuran	Sum of Group 1: 1 µg/kg	Germany	German Chemicalienverbots Verordnung (4) Dioxine	US EPA 8290 - (industry practice - not specified by the regulation)		
39227-28-6 19408-74-3 57653-85-7 57117-41-6 70648-26-9 72918-21-9 57117-44-9 60851-34-5	Group 2) 1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin 1,2,3,7,8-pentachlorodibenzofuran 1,2,3,4,7,8-Hexachlorodibenzofuran 1,2,3,7,8,9-Hexachlorodibenzofuran 1,2,3,6,7,8-Hexachlorodibenzofuran 2,3,4,6,7,8-Hexachlorodibenzofuran	Sum of Group 1 & 2: 5 µg/kg					
35822-46-9 3268-87-9 67562-39-4 55673-89-7 39001-02-0	Group 3) 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin 1,2,3,4,6,7,8-Heptachlorodibenzofuran 1,2,3,4,7,8,9-Heptachlorodibenzofuran 1,2,3,4,6,7,8,9-Octachlorodibenzofuran	Sum of Group 1, 2 & 3: 100 µg/kg					
50585-41-6 109333-34-8 67933-57-7 131166-92-2	Group 4) 2,3,7,8-Tetrabromodibenzo-p-dioxin 1,2,3,7,8-Pentabromodibenzo-p-dioxin 2,3,7,8-Tetrabromodibenzofuran 2,3,4,7,8-Pentabromodibenzofuran	Sum of Group 4: 1 µg/kg					
110999-44-5 110999-46-7 110999-45-6 107555-93-1	Group 5) 1,2,3,4,7,8-Hexabromodibenzo-p-dioxin 1,2,3,7,8,9-Hexabromodibenzo-p-dioxin 1,2,3,6,7,8-Hexabromodibenzo-p-dioxin 1,2,3,7,8-Pentabromodibenzofuran	Sum of Group 4 & 5: 5 µg/kg					

Flame Retardants

CAS Number	Chemical Name/Color Index Name	Restriction / Limit on Final Product or Tested Component	Country	Regulation	Test Method [detection limit]	Other Countries, U.S. States that also Regulate this Substance	Comment
85535-84-8	Chlorinated paraffins (C10-C13)	May not be used	European Union	European Union Directive 2002/45/EC of the European Parliament: relating to restrictions on the marketing and use of certain dangerous substances and preparations	Solvent extraction and GC-MS or LC-MS (industry practice - not specified by the regulation)	South Korea	This chemical may also be present in leather and should not exceed 1% for fat liquoring of leather
59536-65-1	Polybrominated biphenyls (PBBs)	May not be used	European Union	European Union Directive 76/769/EEC on restrictions on the marketing and use of certain dangerous substances and preparations. European Directive 83/264/EEC	Methanol extraction: analysis by GC-MS or LC-MS (industry practice - not specified by the regulation)	Turkey, Switzerland, Canada, and South Korea	South Korea requirement applicable only to bedclothes and nightclothes among underwear.
32534-81-9	Penta-bromodiphenyl ether (pentaBDE)	May not be used	European Union	European Union Directive 2003/11/EC of the European Parliament: relating to restrictions on the marketing and use of certain dangerous substances and preparations (PBDE and OBDE).	Solvent extraction and analysis by GC-MS or LC-MS (industry practice - not specified by the regulation)	United States, Switzerland, and South Korea	South Korea requirement applicable only to bedclothes and nightclothes among underwear.
32536-52-0	Octa-bromodiphenyl ether (octaBDE)						
126-72-7	Tris (2,3-dibromopropyl) phosphate (TRIS)	Not Detected	European Union	European Union Directive 76/769/EEC on restrictions on the marketing and use of certain dangerous substances and preparations.	Methanol extraction and analysis by LC-MS or GC-MS (industry practice - not specified by the regulation)	Turkey, Switzerland, Japan, and South Korea	South Korea requirement applicable only to bedclothes and nightclothes among underwear.

Flame Retardants (continued)

CAS Number	Chemical Name/Color Index Name	Restriction / Limit on Final Product or Tested Component	Country	Regulation	Test Method [detection limit]	Other Countries, U.S. States that also Regulate this Substance	Comment
5412-25-9	Bis (2,3-dibromopropyl) phosphate	Not Detected	Japan	Japanese law for the control of household products containing harmful substances; Law no. 112, October 12, 1973. Partially amended in 1978 and 1981	Solvent extraction and analysis by GC-MS or LC-MS (industry practice - not specified by the regulation)		
545-55-1	Tris (1-aziridiny)-phosphine oxide (TEPA)	Not Detected	European Union	European Union Directive 76/769/EEC on restrictions on the marketing and use of certain dangerous substances and preparations. European Union Directive 83/264/EEC	KOH or NaOH digestion followed by GC-MS headspace analysis for ethyleneimine (industry practice - not specified by the regulation)	Switzerland, Turkey, Japan, and South Korea	
1163-19-5	Decabromodiphenyl ether (DecaBDE)	0.1% by weight	Sweden	Swedish Legislation			

Metals

Restrictions for Textiles

CAS Number	Chemical Name/Color Index Name	Restriction / Limit on Final Product or Tested Component	Country	Regulation	Test Method [detection limit]	Other Countries, U.S. States that also Regulate this Substance	Comment
7440-43-9	Cadmium (Cd)	100 ppm	Netherlands	Cadmium Decree of the Netherlands	Total Digestion	UK	If Cadmium is used as a coloring agent
7439-92-1	Lead (Pb)	100 ppm	Denmark	Danish statutory order no. 1012 of November 13, 2000 on the Prohibition, Sale, Import, and Manufacture of Lead and Products Containing Lead	Total Digestion (industry practice not specified by the regulation)	U.S.	U.S. federal lead substrate restrictions for each component in childrens products (12 years and under) sold on or after February 10, 2009 are set at 600 ppm. After August 14, 2009 level drops to 300 ppm. After August 14, 2011 level drops to 100 ppm.
		0.2 ppm	China	FZ/T 81014-2008 (Textile Industry Standard of the People's Republic of China ISC 61.020 Y76) effective October 1, 2008.	GB/T 17593.1 Textiles- Determination of heavy metals Part 1: Atomic absorption spectrophotometry		Applies to infant wear (<24 months) only. Infant's wear defined as mainly made of textiles and woven fabrics as well as infant's adornment products.
18540-29-9	Chromium (Cr+6) - hexavalent	Not Detected (below detection limits - see test method)	Germany	German Food, Feed and Commodities Law §30 (LFGB §30)	DIN 53314; C18 filtration and re-analysis of all positive results (for leather) [limit is 3 ppm] BS EN420 ISO 17075		
7440-47-3	Chromium	1.0 ppm	China	China FZ/T 81014-2008 (Textile Industry Standard of the People's Republic of China ISC 61.020 Y76) effective October 1, 2008.	GB/T 17593.1 Textiles- Determination of heavy metals Part 1: Atomic absorption spectrophotometry		Applies to infant wear (<24 months) only. Infant's wear defined as mainly made of textiles and woven fabrics as well as infant's adornment products.

Restrictions for textiles (continued)

CAS Number	Chemical Name/Color Index Name	Restriction / Limit on Final Product or Tested Component	Country	Regulation	Test Method [detection limit]	Other Countries, U.S. States that also Regulate this Substance	Comment
7439-97-6	Mercury	0.02 ppm	China	FZ/T 81014-2008 (Textile Industry Standard of the People's Republic of China ISC 61.020 Y76) effective October 1, 2008.	GB/T 17593.4 Textiles- Determination of heavy metals Part 4: Determination of tear force of tongue-shaped test specimens		Applies to infant wear (<24 months) only. Infant's wear defined as mainly made of textiles and woven fabrics as well as infant's adornment products.
7440-38-2	Arsenic	0.2 ppm	China	FZ/T 81014-2008 (Textile Industry Standard of the People's Republic of China ISC 61.020 Y76) effective October 1, 2008.	GB/T 17593.4 Textiles- Determination of heavy metals Part 4: Determination of tear force of tongue-shaped test specimens		Applies to infant wear (<24 months) only. Infant's wear defined as mainly made of textiles and woven fabrics as well as infant's adornment products.
7440-50-8	Copper	25 ppm	China	FZ/T 81014-2008 (Textile Industry Standard of the People's Republic of China ISC 61.020 Y76) effective October 1, 2008.	GB/T 17593.1 Textiles- Determination of heavy metals Part 1: Atomic absorption spectrophotometry		Applies to infant wear (<24 months) only. Infant's wear defined as mainly made of textiles and woven fabrics as well as infant's adornment products.

Restrictions for Leather

CAS Number	Chemical Name/Color Index Name	Restriction / Limit on Final Product or Tested Component	Country	Regulation	Test Method [detection limit]	Other Countries, U.S. States that also Regulate this Substance	Comment
7440-43-9	Cadmium (Cd)	100 ppm	Netherlands	Cadmium Decree of the Netherlands	Total Digestion	UK	If Cadmium is used as a coloring agent
7439-92-1	Lead (Pb)	100 ppm	Denmark	Danish statutory order no. 1012 of November 13, 2000 on the Prohibition, Sale, Import, and Manufacture of Lead and Products Containing Lead	Total Digestion (industry practice not specified by the regulation)	U.S.	U.S. federal lead substrate restrictions for each component in childrens products (12 years and under) sold on or after February 10, 2009 are set at 600 ppm. After August 14, 2009 level drops to 300 ppm. After August 14, 2011 level drops to 100 ppm.
18540-29-9	Chromium (Cr+6) - hexavalent	Not Detected (below detection limits - see test method)	Germany	German Food, Feed and Commodities Law §30 (LFGB §30)	DIN 53314; C18 filtration and re-analysis of all positive results (for leather) [limit is 3 ppm] BS EN420 ISO 17075		

Restrictions for Metal Parts

CAS Number	Chemical Name/Color Index Name	Restriction / Limit on Final Product or Tested Component	Country	Regulation	Test Method [detection limit]	Other Countries, U.S. States that also Regulate this Substance	Comment
7439-92-1	Lead (Pb)	100 ppm	Denmark	Danish statutory order no. 1012 of November 13, 2000 on the Prohibition, Sale, Import, and Manufacture of Lead and Products Containing Lead	Total Digestion (industry practice not specified by the regulation)	U.S.	U.S. federal lead substrate restrictions for each component in childrens products (12 years and under) sold on or after February 10, 2009 are set at 600 ppm. After August 14, 2009 level drops to 300 ppm. After August 14, 2011 level drops to 100 ppm.
7440-02-0	Nickel (Ni) (in metal items)	0.5 µg/cm ² /week	European Union	European Union Directive 94/27/EC of the European Parliament: relating to restrictions on the marketing and use of certain dangerous substance and preparations and European Union Directive 2004/96/EEC	Nickel release by EN 1811 Abrasion of coated items by EN 12472		

Restrictions for Plastics, Plastic Film, Surface Coatings and Printing

CAS Number	Chemical Name/Color Index Name	Restriction / Limit on Final Product or Tested Component	Country	Regulation	Test Method [detection limit]	Other Countries, U.S. States that also Regulate this Substance	Comment
7439-92-1	Lead (Pb)	100 ppm	Denmark	Danish statutory order no. 1012 of November 13, 2000 on the Prohibition, Sale, Import, and Manufacture of Lead and Products Containing Lead	Total Digestion (industry practice - not specified by the regulation)	U.S.	U.S. federal lead substrate restrictions for each component in childrens products (12 years and under) sold on or after February 10, 2009 are set at 600 ppm. After August 14, 2009 level drops to 300 ppm. After August 14, 2011 level drops to 100 ppm. U.S. federal lead in paint rules for children 12 and under will drop from 600 ppm to 90 ppm for goods made on or after August 14, 2009.
7440-43-9	Cadmium (Cd)	100 ppm	European Union	European Union Directive 91/338/EC	EN 1122 (industry practice - not specified by the regulation)		

Organotin Compounds

CAS Number	Chemical Name/Color Index Name	Restriction / Limit on Final Product or Tested Component	Country	Regulation	Test Method [detection limit]	Other Countries, U.S. States that also Regulate this Substance	Comment
56573-85-4	Tributyltin (TBT)	Not Detected (0.5 ppm EACH)	Japan	Japanese law for the control of household products containing harmful substances (Law no. 112)	Performance-based method of ethanol extraction derivitization and analysis by GC-MS or LC-MS ISO 17353-2004-(industry practice - not specified by the regulation)	TBT - South Korea	South Korea also regulates TBT for baby clothing (less than 24 months), for bedclothes, and products that come into skin contact.
668-34-8	Triphenyltin (TPHT)						
1002-53-5	Dibutyltin (DBT)	1 ppm	South Korea	Self Regulatory Confirmation Notice (Notice No. 2007-34) issued by Korean Agency for Technology and Standards			Applies to baby clothing only (less than 24 months).

Misc. Chemicals

CAS Number	Chemical Name/Color Index Name	Restriction / Limit on Final Product or Tested Component	Country	Regulation	Test Method [detection limit]	Other Countries, U.S. States that also Regulate this Substance	Comment
624-49-7	Dimethyl Fumarate	May not be used	France	French Regulation NOR: ECEC0828052A	May not be detected	EU	Are suspended for one year the importation and marketing for free or expensive, seats and footwear containing dimethyl fumarate (EC number: 210-849-0)
50-00-0	Formaldehyde 0-36 months old	Not Detected (below detection limits - see test method)	Japan	Japanese Law 112	ISO 14184-1 or JIS L1041 (Law 112) or DIN 53315 [detection limit is 20 mg/kg]	Poland, China, Russia, Finland, Norway, France, Netherlands, Austria, Lithuania, Germany, New Zealand, South Korea	Poland defines baby products as 0-36 months, other countries including Japan, South Korea, and China define baby products as 0-24 months. South Korea also regulates bedclothes with a limit of of 300 ppm.
	>36 months old (with direct skin contact)	75 ppm	Japan	Japanese Law 112	ISO 14184-1 or JIS L1041 (Law 112) or DIN 53315 [detection limit is 20 mg/kg]		
	>36 months old (no direct skin contact)	300 ppm	See other countries		ISO 14184-1 or JIS L1041 (Law 112) or DIN 53315 [detection limit is 20 mg/kg]		
2795-39-3	Perfluorooctane sulfonate (PFOS)	1 µg/m ²	European Union	EU Directive 2006/122/EC amending for the thirtieth time 76/769/EEC	Solvent Extraction LC-MS - (industry practice - not specified by the regulation)	Canada	The Canadian Environmental Protection Act, 1999 (CEPA 1999), Registration SOR 2008/178 prohibits the manufacture, use, sale, offer for sale and import of PFOS, as well as products containing PFOS, but does not specify limit.

Phthalates

CAS Number	Chemical Name/Color Index Name	Restriction / Limit on Final Product or Tested Component	Country	Regulation	Test Method [detection limit]	Other Countries, U.S. States that also Regulate this Substance	Comment
	Phthalates	0.1%	South Korea, U.S.	Self Regulatory Confirmation Notice (Notice No. 2007-34) issued by Korean Agency for Technology and Standards. U.S. Consumer Product Safety Information Act (PL 110-787).		European Union, California	In South Korea, applies to baby clothing (less than 24 months). In the U.S., DEHP, DBP and BBP are restricted in child care articles (3 years and under) that facilitate sleep or feeding. Unclear which footwear and apparel articles are covered.
117-81-7	Di(ethylhexyl) phthalate (DEHP)						
117-84-0	Di-n-octyl phthalate (DNOP)						
85-68-7	Butyl benzyl phthalate (BBP)						
84-74-2	Dibutyl phthalate (DBP)						
58033-90-2	Di-isononyl phthalate (DINP)						In the U.S., DINP, DIDP and BBP are restricted in toys and child care articles that can be placed in the mouth.
68515-49-1	Di-isodecyl phthalate (DIDP)						

Glossary of Terms/Acronyms related to the AAFA RSL list

BS—British Standard

CAS—Chemical Abstracts Service. CAS Registry Numbers (often referred to as CAS RNs or CAS Numbers) are unique identifiers for chemical substances. CAS is a division of the American Chemical Society. See www.cas.org.

CEN—European Committee for Standardization

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

DIN—German Standards Institute (Deutsches Institut für Normung)

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

EEC—European Economic Community

EN—European Norm

EPA—Environmental Protection Agency (U.S.)

EU—European Union

GB—Guo Biao in Chinese which means National Standards

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

ISO—International Standards Organization

JIS—Japanese Industrial Standard

KOH—Potassium Hydroxide

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

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

mg/L—milligram per liter.

mg/kg—milligram per kilogram.

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

NaOH—Sodium Hydroxide

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

Pesticide—A chemical agent or substance used for destroying pests

ppm—Parts Per Million. A unit describing concentrations of chemical substances. 1 ppm can also be notated as 1 milligram per kilogram (mg/kg) or 1 microgram per gram ($\mu\text{g/g}$).

ppb—Parts per Billion. A unit describing concentrations of chemical substances. 1 ppb can also be notated as 1 microgram per kilogram ($\mu\text{g/kg}$).

PVC—Polyvinyl Chloride

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

UK—United Kingdom

$\mu\text{g/cm}^2/\text{week}$ —microgram per square centimeter per week

$\mu\text{g/g}$ —microgram per gram

µg/kg—microgram per kilogram

µg/m²—microgram per square meter

Changes from Release 3 to Release 4

In RSL

Added U.S. States to Other Countries column

Dyes:

Removed footnote from 4-Amino azobenzene
Removed footnote from 2,4-Xylidine added China only
Removed footnote from 2,6-Xylidine added China only
Removed 118685-33-9 Navy Blue as to the best of our knowledge this particular dye is no longer manufactured

Solvents:

Removed footnote from Tetrachloroethylene
Added Japan Only to Tetrachloroethylene

Pesticides:

Changed comment to country: Switzerland and Finland (those pesticides without indication are regulated under Switzerland only)
Corrected listing of countries for Dieldrin (5)

Dioxins and Furans:

Corrected CAS for 1,2,3,4,7,8-Hexabromodibenzo-p-dioxin to 110999-44-5
Added CAS for 1,2,3,7,8,9-Hexabromodibenzo-p-dioxin 110999-46-7
Added CAS for 1,2,3,6,7,8-Hexabromodibenzo-p-dioxin 110999-45-6
Added CAS for 1,2,3,7,8-Pentabromodibenzofuran 107555-93-1

Metals:

Added lead comment for restrictions for textiles
Added lead comment for restrictions for leather
Added lead comment for restrictions for metal parts
Added lead comment for restrictions for plastics, plastic film, surface coatings and printing
Changed name of regulation for Chromium hexavalent to German Food, Feed and Commodities Law
Changed test method for Chromium hexavalent to ISO 17075 under restrictions for textiles and restrictions for leather
Added new heavy metal restrictions (CAS: 7440-47-3 Chromium, CAS: 7439-92-1 Lead, CAS: 7439-97-6 Mercury, CAS: 7440-38-2 Arsenic, CAS: 7440-50-8 Copper) (China) in textiles

Organotin Compounds:

Added Di-isononyl phthalate (DINP) CAS: 58033-90-2
Added Di-isodecyl phthalate (DIDP) CAS: 68515-49-1
Added comment for DINP and DIDP
Changed comment for DEHP, DBP and BBP

Misc Chemicals:

Added Dimethyl Fumarate CAS: 624-49-7

Disclaimer

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