



## Introduction

The Restricted Substance 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.

The RSL was developed to 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 and international regulations governing the amount of substances that are permitted in finished home textile, apparel, and footwear products.

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.

## 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 (where no test method is stipulated in the regulation, the GAFTI column may suggest one)
  - 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 no regulatory concentration limits but may warrant evaluation for applicability.

1. The U.S. Environmental Protection Agency (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 a “clear and reasonable” warning label for all products sold in the state of California containing one or more chemicals known to the state to cause cancer or reproductive toxicity. Labeling requirements are dependent on consumer exposure to the chemical (measured in micrograms (µg)/day) not the concentration in the product. To comply with the law, manufacturers must either ensure that consumer exposure to regulated chemicals in their products do not exceed the established safe harbor levels or label their products. For more information on California Proposition 65, please visit our website at [https://www.aafaglobal.org/AAFA/Solutions\\_Pages/RSL\\_Covering\\_California\\_Proposition\\_65](https://www.aafaglobal.org/AAFA/Solutions_Pages/RSL_Covering_California_Proposition_65).

## 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 (MSDS). 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.
4. Test methods noted in blue are the Global Apparel, Footwear and Textile Initiative (GAFTI) recommended test methods.

## D. GAFTI Comments

1. The members of the Global Apparel, Footwear and Textile Initiative (GAFTI) have collaboratively produced recommended test methods for certain chemicals in cases where the test method is not stipulated by the regulation.

### About GAFTI

Global Apparel, Footwear and Textile Initiative is an initiative to bring retailers, brands, mills, and factories together to improve efficiencies and set standards globally.

Because there is no single source of standards, there is a lack of standardization in the apparel, textile, and footwear industry. This gap creates conflicting requirements across customers.

GAFTI's goal is to reduce complexity and remove costs from common industry practices and prevent increased scrutiny from press and governments, which could lead to increased regulation.

For more information see: [www.GAFTI.org](http://www.GAFTI.org)

## **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. Representing more than 1,000 world famous name brands, we are the trusted public policy and political voice of the apparel and footwear industry, its management and shareholders, its nearly four million U.S. workers, and its contribution of more than \$400 billion in annual U.S. retail sales.

AAFA stands at the forefront as a leader of positive change for the apparel and footwear industry. With integrity and purpose, AAFA delivers a unified voice on key legislative and regulatory issues. AAFA enables a collaborative forum to promote best practices and innovation. AAFA's comprehensive work ensures the continued success and growth of the apparel and footwear industry, its suppliers, and its customers.

## **Acknowledgements**

The AAFA gratefully acknowledges the support and contribution of the past and present members of the RSL Task Force in developing the RSL. The current members of the RSL Task Force are listed below.

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Arylamines								
CAS Number	Chemical Name/Color Index Name	Restriction /Maximum Limit on Final Product or Tested Component	Country	Regulation	Test Method	Other Countries, U.S. States that also Regulate this Substance	Comment	GAFTI Comments
91-22-5	Quinoline	50mg/kg	EU	Amendment 2018/1513 to Annex XVII to Regulation (EC) No 1907/2006				
60-09-3	4-Amino azobenzene	Reported as not detected.  <b>China restriction limit:</b> Textiles 20ppm Leather 30ppm  <b>EU restriction limit:</b> Textiles and Leather: 30ppm  <b>Vietnam restriction limit:</b> restricts AZO dyes and Formaldehyde Azo dyes limit: 30 ppm	Vietnam, EU, and China	Regulations below apply to all Arylamines listed in this RSL  European Union REACH Regulation (EC) No. 1907/2006 Annex XVII	Textiles (EU): ISO 14362 1 :2017 Leather (EU): EN ISO 17234-1:2015  Test methods specific for 4-Aminoazobenzene confirmation: LFGB 82.02-9 LFGB 82.02-15 EN ISO 17234-2:2011 AAB ISO 14362 - 3:2017 °GB/T 23344-2009 (pAAB) confirmation	South Korea (KC Mark, for more information review Appendix II), and Indonesia  Switzerland, Norway, and Taiwan, Turkey "Indonesia: No.72/M-IND/PER/7/2012 SNI7617:2013	4- Amino azobenzene is not listed in GB20400-2006;  Only 23 arylamines are subject to this standard	
97-56-3	<i>o</i> -Aminoazotoluene							
92-67-1	4-Aminodiphenyl							
99-55-8	2-Amino-4-nitrotoluene							
90-04-0	<i>o</i> -Anisidine							
92-87-5	Benzidine							
106-47-8	<i>p</i> -Chloroaniline							
95-69-2	4-Chloro- <i>o</i> -toluidine							
120-71-8	<i>p</i> -Cresidine							
615-05-4	2,4-Diaminoanisole							
101-77-9	4,4'-Diaminodiphenylmethane							
91-94-1	3,3'-Dichlorobenzidine							
119-90-4	3,3'-Dimethoxybenzidine							
119-93-7	3,3'-Dimethylbenzidine							
838-88-0	3,3'-Dimethyl-4,4'-diaminodiphenylmethane							
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, Japan only)	The National Standard of the People's Republic of China GB18401-2010  The National Standard of the People's Republic of China GB20400-2006- Leather and Fur  Vietnam Circular no.21/2017/TT-BCT Going into force May 1, 2018	Textiles (China) GB/T 17592-2011  Leather and fur (China) GB/T 19942-2005	Egypt: ES 7266-4/2011 ES 7322/2011"  Taiwan: CNS 15290 CNS 15503 (children products) CNS 8634 (leather casual shoes) CNS 10632 (leather shoes)"	GB 30585-2014 (Safety technical specification for children's footwear) - will apply on 1 Jan 2016			
87-62-7	2,6-Xylidine (China, Japan only)							

Asbestos								
CAS Number	Chemical Name/Color Index Name	Restriction /Maximum Limit on Final Product or Tested Component	Country	Regulation	Test Method	Other Countries, U.S. States that also Regulate this Substance	Comments	GAFTI Comments
12001-28-4	Crocidolite	Not detected	European Union	European Union REACH Regulation (EC) No. 1907/2006 Annex XVII	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)	Switzerland and Norway, and the U.S		
12001-29-5	Chrysotile							
12172-73-5	Amosite							
77536-66-4	Actinolite							
77536-67-5	Anthrophyllite							
77536-68-6	Tremolite							

Dioxins & Furans								
CAS Number	Chemical Name/Color Index Name	Restriction /Maximum Limit on Final Product or Tested Component	Country	Regulation	Test Method	Other Countries, U.S. States that also Regulate this Substance	Comments	GAFTI Comments
Group 1)			Germany	GERMANY: Dioxins & Furans can be found in § 3 Abs 2, Anlage 1 Eintrag 2 Chemikalienverbots VO	US EPA 8290 (industry practice-not specified by the regulation)			
1746-01-6	2,3,7,8- Tetrachlorodibenzo-p-dioxin	Sum of Group 1: 1 µg/kg						
40321-76-4	1,2,3,7,8- Pentachlorodibenzo-p-dioxin							
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran							
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran							
Group 2)								
19408-74-3	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	Sum of Group 1 & 2: 5 µg/kg						
39227-28-6	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin							
57117-41-6	1,2,3,7,8- pentachlorodibenzofuran							
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran							
57653-85-7	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin							
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran							
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran							
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran							
Group 3)								
3268-87-9	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	Sum of Groups 1, 2 & 3: 100 µg/kg						
35822-46-9	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin							
39001-02-0	1,2,3,4,6,7,8,9-Octachlorodibenzofuran							
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran							
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran							
Group 4)								
109333-34-8	1,2,3,7,8-Pentabromodibenzo-p-dioxin	Sum of Group 4: 1 µg/kg						
131166-92-2	2,3,4,7,8-Pentabromodibenzofuran							
50585-41-6	2,3,7,8-Tetrabromodibenzo-p-dioxin							
67733-57-7	2,3,7,8-Tetrabromodibenzofuran							
Group 5)								
107555-93-1	1,2,3,7,8-Pentabromodibenzofuran	Sum of Groups 4 & 5: 5 µg/kg						
110999-44-5	1,2,3,4,7,8-Hexabromodibenzo-p-dioxin							
110999-45-6	1,2,3,6,7,8-Hexabromodibenzo-p-dioxin							
110999-46-7	1,2,3,7,8,9-Hexabromodibenzo-p-dioxin							



Disperse Dyes								
CAS Number	Chemical Name/Color Index Name	Restriction /Maximum Limit on Final Product or Tested Component	Country	Regulation	Test Method	Other Countries, U.S. States that also Regulate this Substance	Comments	GAFTI Comments
3165-93-3	4-chloro-o-toluidinium chloride	30 mg/kg	EU	Amendment 2018/1513 to Annex XVII to Regulation (EC) No 1907/2006				
39156-41-7	4-methoxy-m-phenylene diammonium sulphate; 2,4-diaminoanisole sulphate	30 mg/kg	EU					
548-62-9	[4-[4,4'-bis(dimethylamino)benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride; C.I. Basic Violet 3 with ≥ 0,1 % of Michler's ketone (EC no. 202-027-5)	50 mg/kg	EU					
12222-75-2	Disperse Blue 35	Not Detected (below detection limits - see test method)	Germany	German Food, Feed and Commodities Law §30 (LFGB §30)	§64 LFGB B82.02-10 DIN 54231 KS K 0736:2014	South Korea (applicable to babywear, children's wear and adult underwear)	The following disperse dyes are also restricted in Korea KC Mark:  Disperse Blue 3 Disperse Blue 7 Disperse Blue 26, Disperse Blue 102 Disperse Orange 1 Disperse Yellow 1 Disperse Yellow 9 Disperse Yellow 39 Disperse Yellow 49 Disperse Red 11 Disperse Red 17	
12223-01-7	Disperse Blue 106							
13301-61-6	Disperse Orange 37/59/76							
2475-45-8	Disperse Blue 1							
2832-40-8	Disperse Yellow 3							
2872-52-8	Disperse Red 1							
61951-51-7	Disperse Blue 124							
730-40-5	Disperse Orange 3							

Disperse Dyes								
CAS Number	Chemical Name/Color Index Name	Restriction /Maximum Limit on Final Product or Tested Component	Country	Regulation	Test Method	Other Countries, U.S. States that also Regulate this Substance	Comments	GAFTI Comments
Carcinogenic Dyes*								
1937-37-7	Direct Black 38	Prohibited	Egypt	ES 7266-4/2011	DIN 54231 / §64 LFGB 82.02-10		* Carcinogenic is not used as a description of a sub category of dyes • The term appears in the Egyptian law restricting the use of carcinogenic dyes in clothing & textiles	
2475-45-8	Disperse Blue 1							
2602-46-2	Direct Blue 6							
2832-40-8	Disperse Yellow 3							
3761-53-3	Acid Red 26							
569-61-9	Basic Red 9							
573-58-0	Direct Red 28							
632-99-5	Basic Violet 14							
82-28-0	Disperse Orange 11							

Flame Retardants								
CAS Number	Chemical Name/Color Index Name	Restriction /Maximum Limit on Final Product or Tested Component	Country	Regulation	Test Method	Other Countries, U.S. States that also Regulate this Substance	Comment	GAFTI Comments
115-96-8	Tris(2-chloroethyl) phosphate (TCEP)	Prohibited	New York (United States)	A6195/	Solvent extraction and analysis by GC-MS or LC-MS (industry practice - not specified by the regulation)	Canada, EU	<p>New York ban applies to consumer products, such as baby products, toys, car seats, nursing pillows, crib mattresses, and strollers for intended for use by a child under three years of age</p> <p>European Union REACH Regulation (EC) No. 1907/2006 Candidate List</p> <p>Canada: Regulation Amending Schedule 2 Item 16 to the Canada Consumer Product Safety Act (TCEP) Effective June 22, 2014</p> <p>The Canada requirement is only applied for children's products (&lt; 3 years) made of polyurethane foam</p>	
1163-19-5	Decabromodiphenyl ether (decaBDE)	0.1% by weight	EU	Amendment 2017/227 to Annex XVII in (EC) No 1907/2006	Solvent extraction and analysis by GC-MS or LC-MS (industry practice - not specified by the regulation)	Oregon Revised Statutes Volume : 11, Chapter 453 - Hazardous Substances; Radiation Sources	European Union REACH Regulation (EC) No. 1907/2006 Candidate List	
126-72-7	Tris (2,3-dibromopropyl) phosphate (TRIS)	Prohibited	European Union	European Union REACH Regulation (EC) No. 1907/2006 Annex XVII	Methanol extraction and analysis by LC-MS or GC-MS (industry practice - not specified by the regulation)	Turkey, Switzerland, Japan, U.S., Egypt, and South Korea (KC Mark, for more information review Appendix II)	<p>EU requirement applicable to textiles with direct contact with the skin.</p> <p>South Korea requirement applicable only to bedclothes and nightclothes among underwear [applicable to textile products for babies, children and adult, and textile bedding]</p> <p>US requirement applicable to sleepwear</p>	
13674-87-8	Tris(1,3-dichloro-2-propyl) phosphate (TDCPP)	0.1% by weight	Vermont, U.S.A	S81	Solvent extraction and analysis by GC-MS or LC-MS (industry practice - not specified by the regulation)		This chemical should not exceed 0.1% for children products(<12 yr) & residential upholstered furniture	

Flame Retardants								
CAS Number	Chemical Name/Color Index Name	Restriction /Maximum Limit on Final Product or Tested Component	Country	Regulation	Test Method	Other Countries, U.S. States that also Regulate this Substance	Comment	GAFTI Comments
25637-99-4, 3194-55-6, 134237-50-6, 134237-51-7, 134237-52-8	Hexabromocyclododecane (HBCDD)	100 ppm	Switzerland	POP regulation and in Switzerland: ORRChem textiles annex 1.1 (Art.3)	ISO 18219: 2015			
32534-81-9	Penta-bromodiphenyl ether (pentaBDE)	≤ 0.001% by weight	European Union	European Union POPs Regulation (EC) No. 850/2004, Annex I	Solvent extraction and analysis by GC-MS or LC-MS (industry practice - not specified by the regulation)	United States, Switzerland, and South Korea (KC Mark, for more information review Appendix II)	South Korea requirement applicable only to bedclothes and nightclothes among underwear [applicable to textile products for babies, children and adult, and textile bedding]	
32536-52-0	Octa-bromodiphenyl ether (octaBDE)	≤ 0.1% by weight	European Union	European Union REACH Regulation (EC) No. 1907/2006 Annex XVII	Solvent extraction and analysis by GC-MS or LC-MS (industry practice - not specified by the regulation)	United States, Switzerland, and South Korea (KC Mark, for more information review Appendix II)	South Korea requirement applicable only to bedclothes and nightclothes among underwear [applicable to textile products for babies, children and adult, and textile bedding]	
446255-22-7, 207122-16-5, 68928-80-3	Heptabromodiphenyl ether (HeptaBDE)	10 ppm	Switzerland	POP regulation and in Switzerland: ORRChem textiles annex 1.1 (Art.3)	ISO 18219: 2015			
5412-25-9	Bis (2,3-dibromopropyl) phosphate	Prohibited	Japan	Japanese 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)			
5436-43-1, 40088-47-9	Tetrabromodiphenyl ether (TetraBDE)	10 ppm	Switzerland	POP regulation and in Switzerland: ORRChem textiles annex 1.1 (Art.3)	ISO 18219: 2015			

Flame Retardants								
CAS Number	Chemical Name/Color Index Name	Restriction /Maximum Limit on Final Product or Tested Component	Country	Regulation	Test Method	Other Countries, U.S. States that also Regulate this Substance	Comment	GAFTI Comments
545-55-1	Tris (1-aziridinyl)-phosphine oxide (TEPA)	Prohibited	European Union	European Union REACH Regulation (EC) No. 1907/2006 Annex XVII	KOH or NaOH digestion followed by GC-MS headspace analysis for ethyleneimine (industry practice - not specified by the regulation)	Switzerland, Turkey, Japan, South Korea, and Egypt	EU requirement applicable to textiles with direct contact with the skin	
59536-65-1	Polybrominated biphenyls (PBBs)	Prohibited	European Union	European Union REACH Regulation (EC) No. 1907/2006 Annex XVII	Methanol extraction: analysis by GC-MS or LC-MS (industry practice - not specified by the regulation)	Turkey, Switzerland, Canada, US, South Korea, and Egypt	EU requirement applicable to textiles with direct skin contact South Korea requirement applicable only to bedclothes and nightclothes among underwear [applicable to textile products for babies, children and adult, and textile bedding]	
68631-49-2, 207122-15-4, 36483-60-0	Hexabromodiphenyl ether (HexaBDE)	10 ppm	Switzerland	POP regulation and in Switzerland: ORRChem textiles annex 1.1 (Art.3)	ISO 18219: 2015			
85535-84-8	Chlorinated paraffins (C10-C13)	0.1% by weight	European Union Switzerland	European Union POPs Regulation (EC) No. 850/2004, Annex I, amended by Regulation (EU) 2015/2030  SWITZERLAND: ORRChem annex 1.1 (Art.3)	Solvent extraction and GC-MS or LC-MS (industry practice - not specified by the regulation)  ISO 18219: 2015	South Korea, and Canada	REACH: Also listed on the SVHC Candidate List POPs: Articles should not contain SCCPs above 0.15% by weight	

Fluorinated Greenhouse Gases								
CAS Number	Chemical Name/Color Index Name	Restriction /Maximum Limit on Final Product or Tested Component	Country	Regulation	Test Method	Other Countries, U.S. States that also Regulate this Substance	Comments	GAFTI Comments
2551-62-4	Sulfur hexafluoride - SF <sub>6</sub>	Prohibited	European Union	European Union Regulation (EU) No 517/2014	Headspace for components (industry practice - not specified by the regulation)		Regulation (EU) 517/2014	
	<b>Hydrofluorocarbons (HFCs):</b>							
75-46-7	HFC-23 - CHF <sub>3</sub>							
75-10-5	HFC-32 - CH <sub>2</sub> F <sub>2</sub>							
593-53-3	HFC-41 - CH <sub>3</sub> F							
138495-42-8	HFC-43-10mee - C <sub>5</sub> H <sub>2</sub> F <sub>10</sub>							
354-33-6	HFC-125 - C <sub>2</sub> HF <sub>5</sub>							
359-35-3	HFC-134 - C <sub>2</sub> H <sub>2</sub> F <sub>4</sub>							
811-97-2	HFC-134a - CH <sub>2</sub> FCF <sub>3</sub>							
75-37-6	HFC-152a - C <sub>2</sub> H <sub>4</sub> F <sub>2</sub>							
430-66-0	HFC-143 - C <sub>2</sub> H <sub>3</sub> F <sub>3</sub>							
420-46-2	HFC-143a - C <sub>2</sub> H <sub>3</sub> F <sub>3</sub>							
431-89-0	HFC-227ea - C <sub>3</sub> HF <sub>7</sub>							
677-56-5	HFC-236cb - CH <sub>2</sub> FCF <sub>2</sub> CF <sub>3</sub>							
431-63-0	HFC-236ea - CHF <sub>2</sub> CHF <sub>2</sub> CF <sub>3</sub>							
690-39-1	HFC-236fa - C <sub>3</sub> H <sub>2</sub> F <sub>6</sub>							
679-86-7	HFC-245ca - C <sub>3</sub> H <sub>3</sub> F <sub>5</sub>							
460-73-1	HFC-245fa - CHF <sub>2</sub> CH <sub>2</sub> CF <sub>3</sub>							
406-58-6	HFC-365mfc - CF <sub>3</sub> CH <sub>2</sub> CF <sub>2</sub> CH <sub>3</sub>							
	<b>Perfluorocarbons (PFCs):</b>							
75-73-0	Perfluoromethane - CF <sub>4</sub>							
76-16-4	Perfluoroethane - C <sub>2</sub> F <sub>6</sub>							
76-19-7	Perfluoropropane - C <sub>3</sub> F <sub>8</sub>							
355-25-9	Perfluorobutane - C <sub>4</sub> F <sub>10</sub>							

Fluorinated Greenhouse Gases								
CAS Number	Chemical Name/Color Index Name	Restriction /Maximum Limit on Final Product or Tested Component	Country	Regulation	Test Method	Other Countries, U.S. States that also Regulate this Substance	Comments	GAFTI Comments
678-26-2	Perfluoropentane - C <sub>5</sub> F <sub>12</sub>							
355-42-0	Perfluorohexane - C <sub>6</sub> F <sub>14</sub>							
115-25-3	Perfluorocyclobutane - c-C <sub>4</sub> F <sub>8</sub>							

Metals								
CAS Number	Chemical Name/Color Index Name	Restriction /Maximum Limit on Final Product or Tested Component	Country	Regulation	Test Method	Other Countries, U.S. States that also Regulate this Substance	Comment	GAFTI Comments
18540-29-9 7440-47-3	Chromium (Cr6+) hexavalent	Not Detected (detection limit is 3 ppm) (0.5 ppm leachable)	China	FZ/T 73025-2013 (Knitted garment and adornment for infant) Infant is a child ≤ 36 months old or ≤ 100 cm in height	GB/T 17593.4 Textiles- Determination of heavy metals Part 4: Determination of tear force of tongue-shaped test specimens. GB 30585-2014 (Safety technical specification for children's footwear)	Germany European Union REACH Regulation (EC) No. 1907/2006 Annex XVII German Eighteenth Regulation on the Amendment of the German Ordinance on Commodities of 3rd August 2010  Taiwan CNS 15503	< 3 ppm for leather § 64 LFGB 82.02 - 11(2008) ISO 17075 QB/T 22807 Leather and fur — Chemical tests — Determination of chromium VI content	
						Egypt ES 7322/2011	0.2 mg/kg EN 71-3 Soluble Heavy Metals	
						Taiwan, CNS 15503 (children's product)	0.2 mg/kg CNS 4797-2 ISO 17072-1  Soluble Heavy Metals ISO 17072-1 Soluble Heavy Metals	
						Indonesia, Regulation, No. 07/M-IND/PER/2/2014	0.2 ppm (leachable) Infant apparel (0-36 months) ISO 105-E04 followed by ICP-OES/AAS analysis	
						Korea Certification Mark (KC Mark, for more information review Appendix II)	90 ppm  Applies to textile products for children. (0 - 12 years)	
						China PVC artificial leather	90 mg/kg  Soluble Heavy Metals	
7439-92-1	Lead (Pb)	0.2 ppm (leachable)	China	FZ/T 81014-2008 - Infant's wear (woven) (≤ 24 months) only  FZ/T 73025-2013 (Knitted garment and adornment for infant) Applies to infant knitted wear (≤ 36 months) or body height (≤ 100 cm)	GB/T 17593.1 Textiles- Determination of heavy metals Part 1: Atomic absorption spectrophotometry	United States, 16 C.F.R. §1303 – Ban of Lead-Containing Paint and Certain Consumer Products Bearing Lead-Containing Paint	90ppm ASTM F2853-10 CPSC-CH-E1003-09.1 For surface coating, U.S. rules for children 12 and under set at 90 ppm. Also applies to plastics and plastic film  CPSC determined textiles are exempt from testing since they are unlikely to contain lead in excess of 100ppm. Determination does not include post-production prints and surface coatings.  U.S. federal lead substrate restrictions for each component in children's products (12 years and under)  CPSC determined leather is exempt from testing since it is unlikely to contain lead in excess of 100ppm	



Metals								
CAS Number	Chemical Name/Color Index Name	Restriction /Maximum Limit on Final Product or Tested Component	Country	Regulation	Test Method	Other Countries, U.S. States that also Regulate this Substance	Comment	GAFTI Comments
						China, GB 30585-2014 (Safety technical specification for children's footwear)	100 mg/kg Applies to children's footwear (≤14 years old), Size of the shoes <250 mm (exclude children's rubber shoes) QB/T 4340 Footwear - Chemical test method - total heavy metal content - Inductively coupled plasma emission spectroscopy	
						Denmark, Statutory Order no. 856 of September 5, 2009	100ppm Total Digestion (industry practice - not specified by the regulation)	
						European Union REACH Regulation (EC) No. 1907/2006 Annex XVII	Total Lead: 500 ppm Rate of lead release of Lead: ≤0.05 µg/cm <sup>2</sup> /h (0.05 µg/g/h) This restriction is applicable to products which are supplied to the general public and can be placed in the mouth by children.	
7439-97-6	Mercury	0.02 ppm (leachable)	China	FZ/T 81014-2008 - Infant's wear (woven)  FZ/T 73025-2013 (Knitted garment and adornment for infant) Applies to woven infant wear and adornment products (≤ 24months) only  FZ/T 73025-2013 (Knitted garment and adornment for infant) Applies to infant knitted wear (≤ 36 months) or body height (≤ 100 cm)	GB/T 17593.4 Textiles--Arsenic and Mercury	Taiwan CNS 15503 (children's product)  Egypt ES 7322/2011	0.02 mg/kg  CNS 4797-2 ISO 17072-3  Children products up to age 16  0.02 mg/kg Soluble heavy metals  EN 71-3  children less than 36 months footwear, size 26 and less	

Metals								
CAS Number	Chemical Name/Color Index Name	Restriction /Maximum Limit on Final Product or Tested Component	Country	Regulation	Test Method	Other Countries, U.S. States that also Regulate this Substance	Comment	GAFTI Comments
7440-02-0	Nickel (Ni)	1.0 ppm (leachable)	China	FZ/T 73025-2013 (Knitted garment and adornment for infant)  Applies to knitted textile products, including clothing, bedding and accessories for infants  Infant is a child ≤ 36 months old or ≤ 100 cm in height	GB/T 17593.4 Textiles--Determination of heavy metals Part 1: Atomic absorption spectrophotometry	Indonesia Regulation, No. 07/M-IND/PER/2/2014	1.0 ppm (leachable)  ISO 105-E04 followed by ICP-OES/AAS analysis  Infant apparel (0-36 months)	
						European Union REACH Regulation (EC) No. 1907/2006 Annex XVII Nickel (Ni) (in metal items)	0.5 µg/cm2/week  Nickel release by EN 1811:2011+A1:2015 for non-coated item; EN 12472:2005+A1:2009 and EN 1811:2011+A1:2015 for coated item  Restriction only applicable in cases where there is direct and prolonged contact with skin	
7440-36-0	Antimony	30ppm (leachable)	China	FZ/T 73025-2013 (Knitted garment and adornment for infant)  Applies to knitted textile products, including clothing, bedding and accessories for infants  Infant is a child ≤ 36 months old or ≤ 100 cm in height	GB/T 17593.4 Textiles--Determination of heavy metals Part 1: Atomic absorption spectrophotometry	Egypt, ES 7322/2011	30 mg/kg EN 71-3 Applies to children less than 36 months footwear, size 26 and less	
						Taiwan CNS 15503 (children's product)	30 mg/kg CNS 4797-2 ISO 17072-1 Applies to Children products up to age 14	
						China, FZ/T 81014-2008 - Infant's wear (woven)  FZ/T 73025-2013 (Knitted garment and adornment for infant)	0.2 ppm (leachable) GB/T 17593.4 Textiles- Arsenic and Mercury Applies to woven infant wear and adornment products (≤ 24months) only  FZ/T 73025-2013 (Knitted garment and adornment for infant) Applies to infant knitted wear (≤ 36 months) or body height (≤ 100 cm)	
						Egypt, ES 7322/2011	25 mg/kg EN 71-3 Soluble heavy metals children less than 36 months footwear, size 26 and less	

Metals								
CAS Number	Chemical Name/Color Index Name	Restriction /Maximum Limit on Final Product or Tested Component	Country	Regulation	Test Method	Other Countries, U.S. States that also Regulate this Substance	Comment	GAFTI Comments
7440-38-2	Arsenic	Prohibited (Restriction for metal parts for all textile products and textile accessories)	Taiwan	CNS 15290	CNS 4797-2	Taiwan, CNS 15503 (children's product)	25 mg/kg CNS 4797-2 Soluble heavy metals Children products up to age 14	
						China, GB 30585-2014 (Safety technical specification for children's footwear)	100 mg/kg QB/T 4340 Footwear - Chemical test method - total heavy metal content - Inductively coupled plasma emission spectroscopy Applies to children's footwear (≤14 years old) , Size of the shoes <250 mm (exclude children's rubber shoes) Applies to leather, plastics and film, and metals.	
7440-39-3	Barium	1000 mg/kg	Taiwan	CNS 15503 (children's product up to age 15)	CNS 4797-2 ISO 17072-2	Egypt ES 7322/2011	EN 71-3 Soluble heavy metals Applies to children less than 36 months footwear, size 26 and less	
						Indonesia, Regulation, No. 07/M-IND/PER/2/2014	0.1 ppm (leachable) ISO 105-E04 followed by ICP-OES/AAS analysis Infant apparel (0-36 months)	
						China, FZ/T 73025-2013 (Knitted garment and adornment for infant)	0.1 ppm (leachable) GB/T 17593.4 Textiles-Determination of heavy metals Part 1: Atomic absorption spectrophotometry Applies to knitted textile products, including clothing, bedding and accessories for infants  Infant is a child ≤ 36 months old or ≤ 100 cm in height	

Metals								
CAS Number	Chemical Name/Color Index Name	Restriction /Maximum Limit on Final Product or Tested Component	Country	Regulation	Test Method	Other Countries, U.S. States that also Regulate this Substance	Comment	GAFTI Comments
7440-43-9	Cadmium (Cd)	Prohibited	Taiwan	CNS 15290	CNS 4797-2 For all textile products and textile accessories. Test method CNS 4797-2 is similar to EN 71-3 for determination of soluble Cadmium content	Washington State Children's Product Safety Act	40 mg/kg	
						Egypt, ES 7322/2011	75mg/kg Children less than 36 months footwear, size 26 and less	
						China, GB 30585-2014 (Safety technical specification for children's footwear) GB 21550-2008 (Soluble heavy metals)	102 mg/kg QB/T 4340 Footwear - Chemical test method - total heavy metal content - Inductively coupled plasma emission spectroscopy Applies to children's footwear (≤14 years old) , Size of the shoes <250 mm (exclude children's rubber shoes) 75mg/kg (Soluble heavy metals)	
						European Union, European Union REACH Regulation (EC) No. 1907/2006 Annex XVII	100 ppm Total Digestion (industry practice-not specified by the regulation) This restriction is applicable to jewelry, imitation jewelry and hair accessories  It is applicable to particular plastic materials such as PVC, PU, etc.	
7440-48-4	Cobalt	1.0ppm (leachable)	China	FZ/T 73025-2013 (Knitted garment and adornment for infant)	GB/T 17593.4 Textiles--Determination of heavy metals Part 1: Atomic absorption spectrophotometry		Applies to knitted textile products, including clothing, bedding and accessories for infants  Infant is a child ≤ 36 months old or ≤ 100 cm in height	

Metals								
CAS Number	Chemical Name/Color Index Name	Restriction /Maximum Limit on Final Product or Tested Component	Country	Regulation	Test Method	Other Countries, U.S. States that also Regulate this Substance	Comment	GAFTI Comments
7440-50-8	Copper	25 ppm (leachable)	China	FZ/T 81014-2008 - Infant's wear (woven)  FZ/T 73025-2013 (Knitted garment and adornment for infant)  Applies to knitted textile products, including clothing, bedding and accessories for infants	GB/T 17593.1 Textiles- Determination of heavy metals Part 1: Atomic absorption spectrophotometry	Indonesia Regulation, No. 07/M-IND/PER/2/2016	25 ppm (leachable)  ISO 105-E04 followed by ICP-OES/AAS analysis  Infant is a child ≤ 36 months old or ≤ 100 cm in height.	
7782-49-2	Selenium	500 mg/kg	Taiwan	CNS 15503 (children's product up to age 17)	CNS 4797-2 ISO 17072-4	Egypt ES 7322/2011	EN 71-3 Soluble heavy metals  Applies to children less than 36 months footwear, size 26 and less	

Miscellaneous								
CAS Number	Chemical Name/Color Index Name	Restriction /Maximum Limit on Final Product or Tested Component	Country	Regulation	Test Method	Other Countries, U.S. States that also Regulate this Substance	Comments	GAFTI Comments
50-00-0	Formaldehyde 0-36 months old	Not Detected (detection limit is 16 mg/kg) (textiles)	Japan	Japanese Law 112	Textile: ISO 14184-1 or JIS L1041 (Law 112) (textiles) China GB/T 2912.1 CNS 15580-1 Leather: ISO 17226-2	China, Russia, Finland, Norway, France, Netherlands, Austria, Lithuania, Germany, New Zealand, South Korea, Vietnam, Taiwan, Egypt, Indonesia and US Minnesota	Vietnam, South Korea define baby products as 0-36 months old  Japan and Taiwan, define baby products as 0-24 months  South Korea also regulates bed clothes with a limit of 300ppm  Taiwan regulates indoor decorative textile with a limit of 300ppm	
	>36 months old (with direct skin contact)	75 ppm (detection limit is 16 mg/kg) (textiles)	Japan	Japanese Law 112	CNS 15579		China defines baby products based on particular standards in Textile Product (GB 18401) is 0-36 months.  Leather Product (GB 20400 is 0-24 months)	
	>36 months old (no direct skin contact)	300 ppm (detection limit is 16 mg/kg) (textiles)			Textile: ISO 14184-1 or JIS L1041 (Law 112) (textiles), China GB/T 2912.1, Leather: ISO 17226-2		GB 30585 regulates Formaldehyde in children's shoes ( $\leq 14$ years old), Size of the shoes $< 250$ mm (will apply from 1 Jan 2016)  US Minnesota Statutes, chapter 325F regulate formaldehyde in children's products ( $< 8$ years old), $< 500$ ppm	
	Formaldehyde (leather and fur) Baby products (0-24 months)	20 ppm	China	GB20400-2006	GB/T 19941			
	Leather and fur (with direct skin contact)	75 ppm	China	GB20400-2006	GB/T 19941			
	Leather and fur (without direct skin contact)	300 ppm	China	GB20400-2006	GB/T 19941			

Miscellaneous								
CAS Number	Chemical Name/Color Index Name	Restriction /Maximum Limit on Final Product or Tested Component	Country	Regulation	Test Method	Other Countries, U.S. States that also Regulate this Substance	Comments	GAFTI Comments
	Formaldehyde (infant athletic shoes and skin contact components in children's athletic shoes)	≤ 75 ppm	China	QB/T 4331	Textile: GB/T 2912.1-2009 Leather: GB/T 19941-2005		Infant athletic shoes are defined as athletic shoes not greater than 170mm in size to be worn by a child under 3 years of age  Children athletic shoes are defined as athletic shoes not greater than 250mm in size to be worn by a child between 3 and 14 years of age	
	Formaldehyde (non-skin contact components on children's athletic shoes)	≤ 300 ppm	China		Textile: GB/T 2912.1-2009 Leather: GB/T 19941-2005			
	Formaldehyde (Textiles and artificial leather on upper, lining and insole of vulcanized shoes- infant shoes)	≤ 75 ppm	China		GB/T 2912.1-2009			
71-43-2	Benzene	5 mg/kg	EU	Amendment 2018/1513 to Annex XVII to Regulation (EC) No 1907/2006				
1763-23-1	Perfluorooctane sulfonate (PFOS)	1 µg/m <sup>2</sup> (textiles or other coated materials) <0.1% for articles	European Union	REGULATION (EU) 2019/1021 on persistent organic pollutants (recast)	Solvent Extraction LC-MS (industry practice-not specified by the regulation)	Canada and Norway, Egypt, Switzerland, and Turkey	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	

Miscellaneous								
CAS Number	Chemical Name/Color Index Name	Restriction /Maximum Limit on Final Product or Tested Component	Country	Regulation	Test Method	Other Countries, U.S. States that also Regulate this Substance	Comments	GAFTI Comments
335-67-1, 3825-26-1 335-95-5 2395-00-8 335-66-0 376-27-2 3108-24-5	Perfluorooctanoic acid (PFOA), its salts and esters	1 µg/m <sup>2</sup> (textiles or other coated materials) 0.1% by weight (product) 0.001% by weight (substances or mixtures)	Norway	Norwegian Product Regulation	CEN/TS 15968:2010	European Union REACH Regulation (EC) No 1907/2006 Annex XVII entry 68 (will apply from 4 July 2020)	Effective June 1, 2014 PFOA is added to Norwegian Product Regulation with different limits in various materials.  The substances whose CAS NO. are 335-67-1 and 3825--26-1 are listed under European Union REACH Regulation (EC) no. 1907/2006 Candidate List	
118685-33-9	Blue Colorant	Prohibited; 0.1% by weight for EU	European union	European Union REACH Regulation (EC) No 1907/2006 Annex XVII		Norway, Egypt, and Switzerland: ORRChem textiles annex 1.13 (Art.3)	Restriction of Blue Colorant in EU applies to substances and mixtures only. (Egypt applies to finished textile products)	
25154-52-3	Nonyl phenol	1000ppm	European Union	European Union REACH Regulation (EC) No 1907/2006 Annex XVII and European Union REACH Regulation (EC) no. 1907/2006 Candidate List		Taiwan CNS 15290 (for children's textile products below age 12 only), and Turkey	For substances and mixtures only. Also for textile and leather processing	
Various	Nonyl phenolethoxylates	100ppm		European Union REACH Regulation (EC) No 1907/2006 Annex XVII entry 46a (will apply from 3 Feb 2021) and European Union REACH Regulation (EC) no. 1907/2006 Candidate List	BS EN ISO 18254 Textiles- Methods for the Detection and Determination of alkyl phenol ethoxylates APEOS		REACH Annex XVII entry 46a is applicable to textile articles which can reasonably be expected to be washed in water	
		4.0 - 7.5 (0-36 months) 4.0 - 8.5 (direct skin contact) 4.0 - 9.0 (without direct skin contact)	China	GB 18401-2010	GB/T 7573			



Miscellaneous								
CAS Number	Chemical Name/Color Index Name	Restriction /Maximum Limit on Final Product or Tested Component	Country	Regulation	Test Method	Other Countries, U.S. States that also Regulate this Substance	Comments	GAFTI Comments
	pH value	4.0 - 7.5 (infant, children, innerwear, midwear) 4.0-9.0 (outerwear, bedding)  4.0 - 9.0 (outerwear, bedding)  not less than 3.5	South Korea	KC Mark	KS K ISO 3071 / ISO 3071			
			Egypt	ES 6535/2008	ISO 4045			
75-01-4	Vinyl Chloride Monomer (VCM)	1 mg/kg	Egypt	ES 7322/2011	ISO 6041 / §64 LFGB B80.32-1:1981-11 / 80/766/EC	Germany- Bedarfsgegenstände Verordnung" German Consumer Goods Ordinance		
		5 mg/kg	China	GB 21550-2008	GB/T 4615-1984		for polyvinyl chloride artificial leather only	
N-Nitrosamines								
62-75-9	N-Nitrosodiethylamine	Not detected (detection limit: 0.5 mg/kg)	China	GB 25036-2010 GB 25038-2010 GB 30585-2014	GB/T 24153		only applicable for rubber component on vulcanized shoes *GB 30585-2014 (only applicable to rubber parts of infant shoes)	
55-18-5	N-Nitrosodibutylamine							
621-64-7	N-Nitrosopiperidine							
924-16-3	N-Nitrosopyrrolidine							
100-75-4	N-Nitrosomorpholine							
930-55-2	1-Nitrosopyrrolidine							
59-89-2	Nitrosomorpholine							
614-00-6	N-Nitroso-N-methylaniline							
612-64-6	N-Nitroso-N-ethylaniline							
Polycyclic aromatic hydrocarbons (PAH)								
91-20-3	Naphthalene (Taiwan only)							
208-96-8	Acenaphthylene (Taiwan only)							
83-32-9	Acenaphthene (Taiwan only)							
86-73-7	Fluorene (Taiwan only)							

Miscellaneous															
CAS Number	Chemical Name/Color Index Name	Restriction /Maximum Limit on Final Product or Tested Component	Country	Regulation	Test Method	Other Countries, U.S. States that also Regulate this Substance	Comments	GAFTI Comments							
85-01-8	Phenanthrene (Taiwan only)	Taiwan: Benzo(a)pyrene: 1mg/kg Total of 16 PAH: 10mg/kg  EU: Articles in direct skin contact with: 1 mg/kg (each) Childcare article: 0.5 mg/kg (each)	Taiwan and the European Union	CNS 3478 (Plastic shoes)  CNS 15503 (children products) (up to age 14)	CNS 3478 Clause 6.18										
120-12-7	Anthracene (Taiwan only)														
206-44-0	Fluoranthene (Taiwan only)														
129-00-0	Pyrene (Taiwan only)														
56-55-3	Benzo(a)anthracene (Taiwan and EU)														
218-01-9	Chrysene (Taiwan and EU)														
193-39-5	Indeno(1,2,3-cd)pyrene (Taiwan only)														
205-99-2	Benzo(b)fluoranthene (Taiwan and EU)														
207-08-9	Benzo(k)fluoranthene (Taiwan and EU)														
50-32-8	Benzo(a)pyrene (Taiwan and EU)								European Union	European Union REACH Regulation (EC) No 1907/2006 Annex XVII	AfPS GS 2014:01 PAH				
53-70-3	Dibenzo(a,h)anthracene (Taiwan and EU)														
191-24-2	Benzo(g,h,i)perylene (Taiwan only)														
192-97-2	Benzo(e)pyrene (EU only)														
205-82-3	Benzo(j)fluoranthene (EU only)														
5216-25-1	$\alpha$ , $\alpha$ , $\alpha$ , 4-tetrachlorotoluene; p-chlorobenzotrichloride	1 mg/kg	EU												

Miscellaneous								
CAS Number	Chemical Name/Color Index Name	Restriction /Maximum Limit on Final Product or Tested Component	Country	Regulation	Test Method	Other Countries, U.S. States that also Regulate this Substance	Comments	GAFTI Comments
98-07-7	$\alpha$ , $\alpha$ , $\alpha$ -trichlorotoluene; benzotrichloride	1 mg/kg	EU	Amendment 2018/1513 to Annex XVII to Regulation (EC) No 1907/2006				
100-44-7	$\alpha$ -chlorotoluene; benzyl chloride	1 mg/kg	EU					

Organotin Compounds								
CAS Number	Chemical Name/Color Index Name	Restriction /Maximum Limit on Final Product or Tested Component	Country	Regulation	Test Method	Other Countries, U.S. States that also Regulate this Substance	Comments	GAFTI Comments
56573-85-4	Tributyltin (TBT)	Prohibited	Canada	Prohibition of Certain Substances Regulation, 2012 (SOR/2012-285)	Taiwan test method: NIEA T504.30B  DIN ISO/TS 16179: 2012-08	Japan, South Korea (KC Mark, for more information review Appendix II), Taiwan, and Turkey	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)	0.1 percent by weight of tin	European Union	European Union REACH Regulation (EC) No. 1907/2006 Annex XVII	Recommended test method EN ISO 17353 (modified)/ EN ISO/TS 16179:2012 for footwear	Taiwan, Japan, and Turkey		
Various	All tri-substituted organotin compounds including TBT and TPhT)	0.1% by weight of tin	European Union	European Union REACH Regulation (EC) No. 1907/2006 Annex XVII	Recommended test method EN ISO 17353 (modified)/ EN ISO/TS 16179:2012 for footwear			
1002-53-5	Dibutyltin (DBT)	South Korean: 1 mg/kg EU: 0.1% by weight of tin	South Korea, and the EU	Self Regulatory Confirmation Notice (Notice No. 2007-34) issued by Korean Agency for Technology and Standards  European Union REACH Regulation (EC) No. 1907/2006 Annex XVII	KS K 0737  DIN ISO/TS 16179: 2012-08	Turkey	South Korea: Applies to baby clothing only (less than 36 months).	
15231-44-4	Diocetyl tin (DOT)	0.1% by weight of tin	EU	European Union REACH Regulation (EC) No. 1907/2006 Annex XVII	KS K 0737  DIN ISO/TS 16179: 2012-08	Turkey	EU requirement applicable to some specific products, such as textiles with direct skin contact, childcare articles, etc.	

Pesticides								
CAS Number	Chemical Name/Color Index Name	Restriction /Maximum Limit on Final Product or Tested Component	Country	Regulation	Test Method	Other Countries, U.S. States that also Regulate this Substance	Comments	GAFTI Comments
93-72-1	2-(2,4,5-trichlorophenoxy) propionic acid, its salts and compounds	Not Detected	Switzerland, EU	European Union POPs Regulation (EC) No. 850/2004 Annex I  Switzerland: ChemRRV (Chemikalien-Risikoreduktions-Verordnung) Art. 3 Appendix 1.1	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 underwear, baby clothing (<24 months) and bedclothes	
93-76-5	2,4,5-trichlorophenoxyacetic acid, its salts and compounds							
309-00-2	Aldrin (Switzerland and EU POPs)							
57-74-9	Chlordane (Switzerland and EU POPs)							
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)							
60-57-1	Dieldrin							
72-20-8	Endrine							
76-44-8	Heptachlorine (Switzerland and EU POPs)							
1024-57-3	Epoxy-heptachlorine							
115-29-7 959-98-8 33213-65-9	Endosulfan and its isomers	Prohibited	EU	European Union POPs Regulation (EC) No. 850/2004 Annex I				
36355-01-8	Hexabromobiphenyl							
608-93-5	Pentachlorobenzene	10 ppm	Switzerland	Switzerland: ORRChem textiles annex 1.1 (Art.3)	ISO 18219: 2015			
608-90-2	Pentabromobenzene	Prohibited	EU	European Union POPs Regulation (EC) No. 850/2004 Annex I				

Pesticides								
CAS Number	Chemical Name/Color Index Name	Restriction /Maximum Limit on Final Product or Tested Component	Country	Regulation	Test Method	Other Countries, U.S. States that also Regulate this Substance	Comments	GAFTI Comments
63405-99-2	4,6-Dichloro-7 (2,4,5-trichloro-phenoxy) 0-2-trifluoro methyl benzimidazole (DTTB)	≤ 30 ppm	Japan	Japan Law for the Control of Household Products			Textile Products Only	
118-74-1	Hexachlorobenzene (Switzerland and EU POPs)	Prohibited	Canada, Switzerland, and the EU	Canada: Prohibition of Certain Toxic Substances Regulations 2012 (SOR/2012-285)  Switzerland: ChemRRV (Chemikalien-Risikoreduktions-Verordnung) Art. 3 Appendix 1.1  European Union POPs Regulation (EC) No. 850/2004 Annex I				
608-73-1	Hexachlorocyclohexane (HCH, all isomers) except gamma-hexachlorocyclohexane (except linande [58-89-9] in medical products) (Switzerland and EU POPs)							
465-73-6	Isodrin							
4234-79-1	Kelevane							
143-50-0	Kepone (Chlordecone) (Switzerland and EU POPs)							
87-86-5	Pentachlorophenol (PCP), its salts and compounds	Not used (textiles and leather) ≤ 5mg/kg (wood based materials)	Switzerland	Switzerland: ChemRRV (Chemikalien-Risikoreduktions-Verordnung) Art. 3 Appendix 1.1 and Appendix 2.17		Spain, Egypt, Denmark, Germany, the Netherlands, Austria, Norway, and South Korea, banned in GB 25036 and GB 25038		
25167-83-3 935-95-5	Tetrachlorophenol (TeCP), its salts and compounds 2,3,5,6-TeCP	Not detected (0.5 mg/kg)	China	GB 25036/ GB 25038	GB/T 184141.1 or GB/T 18414.2	Switzerland	2,3,5,6-TeCP is banned in China GB 25036 and GB 25038 for textile and synthetic leather materials. limit: Not detected (0.5 mg/kg)	

Pesticides								
CAS Number	Chemical Name/Color Index Name	Restriction /Maximum Limit on Final Product or Tested Component	Country	Regulation	Test Method	Other Countries, U.S. States that also Regulate this Substance	Comments	GAFTI Comments
624-49-7	Dimethyl Fumarate	Prohibited	EU	European Union REACH regulation (EC) No. 1907/2006 Annex XVII, limit 0.1 mg/kg	CNS 15331 Annex C	South Korea (KC Mark, for more information review Appendix II), Norway, and Taiwan	0.1 mg/kg - China (GB 30585-2014) will apply on 1 Jan 2016)	
72-43-5	Methoxychlor	Prohibited	Canada, Switzerland, and the EU	Canada: Prohibition of Certain Toxic Substances Regulations 2012 (SOR/2012-285)  Switzerland: ChemRRV (Chemikalien-Risikoreduktions-Verordnung) Art. 3 Appendix 1.1  European Union POPs Regulation (EC) No. 850/2004 Annex I				
2385-85-5	Mirex (Switzerland and EU POPs)							
72-56-0	Perthane							
82-68-8	Quintozene							
8001-50-1	Strobane							
297-78-9	Telodrin							
8001-35-2	Toxaphene (Switzerland and EU POPs)							
1336-36-3 53469-21-9 and Various	Halogenated biphenyls, including Polychlorinated biphenyl (PCB) (both Switzerland)							
Various	Halogenated terphenols, including Polychlorinated terphenyl (PCT)							
Various	Halogenated naphthalenes							
Various	Halogenated diarylalkanes							
Various	Halogenated diphenyl methanes							
99688-47-8	Monomethyl-dibromo-diphenyl methane							
81161-70-8	Monomethyl-dichloro-diphenyl methane							
76253-60-6	Monomethyl-tetrachloro-diphenyl methane							

Phthalates								
CAS Number	Chemical Name/Color Index Name	Restriction /Maximum Limit on Final Product or Tested Component	Country	Regulation	Test Method	Other Countries, U.S. States that also Regulate this Substance	Comments	GAFTI Comments
	Phthalates (Except those listed below, DEHP, DNOP, BBP, DBP, DINP, DIDP)	0.05% by weight	Denmark	Denmark Statutory Order 855 of 05/09/2009			Applies to childcare articles for children 0-3 years old.	
117-81-7	Di (2-ethylhexyl) phthalate (DEHP)	U.S. and Canada each phthalates 0.1% by weight  For E.U and South Korea, DEHP+DBP+BBP = <0.1% by weight  DINP+DIDP+DNOP: 0.1% by weight	South Korea, U.S., Denmark, and the EU	Self Regulatory Confirmation Notice (Notice No. 2007-34) issued by Korean Agency for Technology and Standards. U.S. Consumer Product Safety Improvement Act (PL 110-787). Schedule 1 of the Canadian Hazardous Products Act (Phthalates regulation SOR/2010-298) European Union REACH Regulation (EC) no. 1907/2006 Candidate List for DEHP, BBP, DBP	CPSC-CH-C1001-09.3 or GB/T 22048-2008  Test method for EU: ISO14389: 2014	European Union (European Union REACH Regulation No. 1907/2006 Annex XVII), California (AB1108), Denmark (Statutory Order 786), South Korea (Standards Notice No. 2019-0352), Egypt, Turkey, and Denmark  DEHP, BBP, DBP are listed on the EU REACH Candidate List	In the U.S., regulated phthalates apply in child care articles (3 years and under) that facilitate sleep or feeding, including pajamas	
85-68-7	Benzyl Butyl phthalate (BBP)						In the EU, DEHP, DBP and BBP are restricted for child care articles intended to facilitate sleep, relaxation, hygiene, the feeding of children or sucking on the part of children  Examples: Child bibs	
84-74-2	Di-n-butyl phthalate (DBP)						Washington – Children's Safe Products Act Part 1 (RCW 70.240.020) restricts the six phthalates. The sum of DEHP, BBP, DBP, DINP, DIDP, and DnOP must not exceed 1000 ppm	
117-84-0	Di-n-octyl phthalate (DNOP)						In the US, DINP, and in the EU DINP, DnOP, and DIDP are restricted in toys and child care articles that can be placed in the mouth China - GB 30585-2014 regulate Infant's footwear (0-36 months, footwear ≤170mm): DEHP, DBP, BBP, DINP, DIDP, DNOP: 0.1% by weight	
68515-48-0 28553-12-0	Di-isononyl phthalate (DINP)						Children's footwear (36 months – 14 years, footwear: >170mm, but ≤ 250mm): DEHP, DBP, BBP: 0.1% By weight	
68515-49-1 26761-40-0	Di-isodecyl phthalate (DIDP)						US CPSC prohibits DEHP, DBP, BBP, DINP, DIBP, DPENP, DHEXP, DCHP in children's toys and child care articles (16 CFR 1307)	
131-11-3	Dimethyl phthalate (DMP)	0.1% (sum) by weight	Taiwan	CNS 15503 (children's products)	CNS 15138			
84-66-2	Diethyl phthalate (DEP)							



Phthalates								
CAS Number	Chemical Name/Color Index Name	Restriction /Maximum Limit on Final Product or Tested Component	Country	Regulation	Test Method	Other Countries, U.S. States that also Regulate this Substance	Comments	GAFTI Comments
84-69-5	Diisobutyl phthalate (DIBP)	0.1% w/w per article (each) 1 000 mg/kg (individually or in combination with other phthalates in this entry or in other entries of Annex XVII that are classified in Part 3 of Annex VI to Regulation (EC) No 1272/2008 in any of the hazard classes carcinogenicity, germ cell mutagenicity or reproductive toxicity, category 1A or 1B	European Union	European Union REACH Regulation (EC) no. 1907/2006 Candidate List	CPSC-CH-C1001-09.3 or GB/T 22048-2008 or ISO14389: 2014			
68515-42-4	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP)							
71888-89-6	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)							
117-82-8	Bis(2-methoxyethyl) phthalate (DMEP)							
605-50-5	Diisopentylphthalate (DIPP)							
776297-69-9	N-pentyl-isopentyl phthalate (NPIPP)							
84777-06-0	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear (DPP)							
84-75-3	Di-n-hexyl phthalate (DnHP/DHP)							
131-18-0	Dipentyl phthalate							
68515-50-4	1,2-Benzenedicarboxylic acid. Dihexyl ester. Branched and linear							
68515-51-5 68648-93-1	1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with ≥ 0.3% of dihexyl phthalate (EC No. 201-559-5)							

Solvents								
CAS Number	Chemical Name/Color Index Name	Restriction /Maximum Limit on Final Product or Tested Component	Country	Regulation	Test Method	Other Countries, U.S. States that also Regulate this Substance	Comments	GAFTI Comments
127-19-5	N,N-dimethylacetamide (DMAC)	3 000 mg/kg	EU	Amendment 2018/1513 to Annex XVII to Regulation (EC) No 1907/2006	CEN ISO/TS 16189			
68-12-2	N,N-dimethylformamide; dimethyl formamide (DMF)	3 000 mg/kg	EU					
87-68-3	Hexachlorobutadiene	100 ppm	EU, Switzerland, and Canada	EU: POP regulation 850/2004 ANNEX I Switzerland: ORRchem annex 1.1 (art.3) Canada Prohibition of Certain Toxic Substances Regulations 2012 (SOR/2012-285)				
56-23-5	Carbon Tetrachloride	0.1% (mass)- Each	Switzerland, EU, and Japan	Germany - Chemikalienverbot Verordnung (Prohibition of Chemicals Ordinance), section 16	Headspace for components (industry practice - not specified by the regulation)	European Union REACH Regulation (EC) No. 1907/2006 Annex XVII (Restriction applies to substances and mixtures) only for Pentachloroethane, 1,1,1,2-Tetrachloroethane, 1,1,2,2-Tetrachloroethane, Chloroform, 1,1,2-Trichloroethane, 1,1-Dichloroethylene, and Trichloroethylene Regulation (EC) No. 1005/2009		
71-55-6	1,1,1-Trichloroethane			Japan Law for the Control of Household Products Containing Harmful Substances				

Solvents								
CAS Number	Chemical Name/Color Index Name	Restriction /Maximum Limit on Final Product or Tested Component	Country	Regulation	Test Method	Other Countries, U.S. States that also Regulate this Substance	Comments	GAFTI Comments
76-01-7	Pentachloroethane	0.1% (mass)- Each	EU and Japan	Germany - Chemikalienverbot  Verordnung (Prohibition of Chemicals Ordinance), section 16  Japan Law for the Control of Household Products Containing Harmful Substances	Headspace for components (industry practice - not specified by the regulation)	European Union REACH Regulation (EC) No. 1907/2006 Annex XVII (Restriction applies to substances and mixtures) only for Pentachloroethane, 1,1,1,2-Tetrachloroethane, 1,1,2,2-Tetrachloroethane, Chloroform, 1,1,2-Trichloroethane, 1,1-Dichloroethylene, and Trichloroethylene Regulation (EC) No. 1005/2009  Denmark		
630-20-6	1,1,1,2-Tetrachloroethane							
79-34-5	1,1,2,2-Tetrachloroethane							
67-66-3	Chloroform							
79-00-5	1,1,2-Trichloroethane							
75-35-4	1,1-Dichloroethylene							
79-01-6	Trichloroethylene							
127-18-4	trachloroethylene (Japan on							
	Volatile organics	≤20 g/m <sup>2</sup>	China	GB 21550-2008 (PVC artificial leather)	GB 21550 Clause 5.5		For GB 21550, it is not banned for chlorinated solvents, but all Volatile Organic, by measuring the weight difference of a PVC leather in an oven at 100°C for 6 hours  This regulation applies to all textiles and footwear products containing PVC artificial leather	

## **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](http://www.cas.org).

CEN - European Committee for Standardization

CPSC - Consumer Product Safety Commission. Main U.S. government agency responsible for product safety and for enforcement of CPSIA

CPSIA - Consumer Product Safety Improvement Act

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 a by-product in the manufacture of herbicides, disinfectants, and other agents

EEC - European Economic Community

EN - European Standard

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 Organization for Standardization

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)

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 ( $\mu\text{g/kg}$ ).

REACH - Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals. It entered into force on 1st June 2007. It streamlines and improves the former legislative framework on chemicals of the European Union (EU).

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

Test method - A definitive procedure that produces a test result.

UK - United Kingdom

Appendix I Reporting: Appendix I lists regulations which have a reporting requirement that are not necessarily otherwise listed in the RSL.							
CAS Number	Chemical Name/Color Index Name	Restriction / Limit Triggering Reporting in Article	Country	Regulation	Test Method [detection limit] if any	Other Countries/States Which Also Regulate	GAFTI Comments
121-14-2*	2,4-Dinitrotoluene						
101-77-9*	4,4'- Diaminodiphenylmethane (MDA)						
81-15-2*	5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)						
79-06-1	Acrylamide						
85535-84-8	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)						
NA	Aluminosilicate Refractory Ceramic Fibers Aluminosilicate Refractory Ceramic Fibers are fibers covered by index number 650-017-00-8 in Annex VI, part 3, table 3.1 of Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labeling and packaging of substances and mixtures, and fulfill the three following conditions: a) oxides of aluminum and silicon are the main components present (in the fibers) within variable concentration ranges b) fibers have a length weighted geometric mean diameter less two standard geometric errors of 6 or less micrometers (µm) c) alkaline oxide and alkali earth oxide (Na <sub>2</sub> O+K <sub>2</sub> O+CaO+MgO+BaO) content less or equal to 18% by weight	over 0.1%	EU	REACH SVHC (Substances of Very High Concern)		Washington	
7789-09-5*	Ammonium dichromate						
120-12-7	Anthracene						
90640-80-5	Anthracene oil						
90640-81-6	Anthracene oil, anthracene paste						

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CAS Number	Chemical Name/Color Index Name	Restriction / Limit Triggering Reporting in Article	Country	Regulation	Test Method [detection limit] if any	Other Countries/States Which Also Regulate	GAFTI Comments
91995-15-2	Anthracene oil, anthracene paste, anthracene fraction						
91995-17-4	Anthracene oil, anthracene paste, distn. Lights						
90640-82-7	Anthracene oil, anthracene-low						
56-35-9	Bis(tributyltin)oxide (TBTO)						
10043-35-3 / 11113-50-1	Boric acid						
7646-79-9	Cobalt dichloride						
1303-28-2*	Diarsenic pentaoxide						
1327-53-3*	Diarsenic trioxide						
84-69-5*	Diisobutyl phthalate						
1303-96-4/ 1330-43-4/ 12179-04-3	Disodium tetraborate, anhydrous						
25637-99-4*/3194-55-6* (134237-50-6)*	Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified	over 0.1%	EU	REACH SVHC (Substances of Very High Concern)			
	Alpha-hexabromocyclododecane						
	Beta-hexabromocyclododecane						
	Gamma-hexabromocyclododecane						
7758-97-6*	Lead chromate						
12656-85-8*	Lead chromate molybdate sulphate red (C.I. Pigment Red 104)						
7784-40-9	Lead hydrogen arsenate						
1344-37-2*	Lead sulfochromate yellow (C.I. Pigment Yellow 34)						
65996-93-2	Pitch, coal tar, high temp.						

Appendix I Reporting: Appendix I lists regulations which have a reporting requirement that are not necessarily otherwise listed in the RSL.							
CAS Number	Chemical Name/Color Index Name	Restriction / Limit Triggering Reporting in Article	Country	Regulation	Test Method [detection limit] if any	Other Countries/States Which Also Regulate	GAFTI Comments
7789-00-6*	Potassium chromate						
7778-50-9*	Potassium dichromate						
7775-11-3*	Sodium chromate						
7789-12-0/ 10588-01-9*	Sodium dichromate						
12267-73-1	Tetraboron disodium heptaoxide, hydrate						
79-01-6*	Trichloroethylene						
15606-95-8	Triethyl arsenate						
Extracted from Index no. 650-017-00-8	Zirconia Aluminosilicate Refractory Ceramic Fibres are fibres covered by index number 650-017-00-8 in Annex VI, part 3, table 3.1 of Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, and fulfil the three following conditions: a) oxides of aluminium, silicon and zirconium are the main components present (in the fibres) within variable concentration ranges b) fibres have a length weighted geometric mean diameter less two standard geometric errors of 6 or less micrometres (µm). c) alkaline oxide and alkali earth oxide (Na <sub>2</sub> O+K <sub>2</sub> O+CaO+MgO+BaO) content less or equal to 18% by weight	over 0.1%	EU	REACH SVHC (Substances of Very High Concern)			
7738-94-5* 13530-68-2*	Acids generated from chromium trioxide and their oligomers. Names of the acids and their oligomers: Chromic acid, Dichromic acid, Oligomers of chromic acid and dichromic acid.						
1333-82-0*	Chromium trioxide						
513-79-1	Cobalt(II) carbonate						
71-48-7	Cobalt(II) diacetate						
10141-05-6	Cobalt(II) dinitrate						
10124-43-3	Cobalt(II) sulphate						



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CAS Number	Chemical Name/Color Index Name	Restriction / Limit Triggering Reporting in Article	Country	Regulation	Test Method [detection limit] if any	Other Countries/States Which Also Regulate	GAFTI Comments
71888-89-6	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	over 0.1%	EU	REACH SVHC (Substances of Very High Concern)			
96-18-4	1,2,3-Trichloropropane						
872-50-4	1-Methyl-2-pyrrolidone						
302-01-2 / 7803-57-8	Hydrazine						
68515-42-4	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters						
7789-06-2	Strontium chromate						
111-15-9	2-Ethoxyethyl acetate						
1163-19-5	Bis(pentabromophenyl) ether (deca-BDE)						
72629-94-8	Pentacosafuorotridecanoic acid						
2058-94-8	Henicosafuoroundecanoic acid						
307-55-1	Tricosafuorododecanoic acid						
376-06-7	Heptacosafuorotetradecanoic acid						
NA	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated – covering well defined substances and UVCB substances, polymers and homologues						
NA	4-nonylphenol, branched and linear – substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bonded in position 4 to phenol, covering also UVCB and well-defined substances which include any of the individual isomers or a combination thereof						
123-77-3	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))						

Appendix I Reporting: Appendix I lists regulations which have a reporting requirement that are not necessarily otherwise listed in the RSL.							
CAS Number	Chemical Name/Color Index Name	Restriction / Limit Triggering Reporting in Article	Country	Regulation	Test Method [detection limit] if any	Other Countries/States Which Also Regulate	GAFTI Comments
85-42-7, 13149-00-3, 14166-21-3	Cyclohexane-1,2-dicarboxylic anhydride [1], cis-cyclohexane-1,2-dicarboxylic anhydride [2], trans-cyclohexane-1,2-dicarboxylic anhydride [3] [The individual cis- [2] and trans- [3] isomer substances and all possible combinations of the cis- and trans-isomers [1] are covered by this entry]	over 0.1%	EU	REACH SVHC (Substances of Very High Concern)			
25550-51-019438-60-9, 48122-14-1, 57110-29-9	Hexahydromethylphthalic anhydride [1], Hexahydro-4-methylphthalic anhydride [2], Hexahydro-1-methylphthalic anhydride [3], Hexahydro-3-methylphthalic anhydride [4][The individual isomers [2], [3] and [4] (including their cis- and trans- stereo isomeric forms) and all possible combinations of the isomers [1] are covered by this entry]						
625-45-6	Methoxy acetic acid						
84777-06-0	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear						
605-50-5	Diisopentylphthalate (DIPP)						
776297-69-9	N-pentyl-isopentylphthalate						
629-14-1	1,2-Diethoxyethane						
68-12-2	N,N-dimethylformamide; dimethyl formamide						
683-18-1	Dibutyltin dichloride (DBTC)						
51404-69-4	Acetic acid, lead salt, basic						
1319-46-6	Trilead bis(carbonate) dihydroxide						
12036-76-9	Lead oxide sulfate						
69011-06-9	[Phthalato(2-)]dioxotrilead						
12578-12-0	Dioxobis(stearato)trilead						
91031-62-8	Fatty acids, C16-18, lead salts						
13814-96-5	Lead bis(tetrafluoroborate)						
20837-86-9	Lead cyanamidate						
10099-74-8	Lead dinitrate						

Appendix I Reporting: Appendix I lists regulations which have a reporting requirement that are not necessarily otherwise listed in the RSL.							
CAS Number	Chemical Name/Color Index Name	Restriction / Limit Triggering Reporting in Article	Country	Regulation	Test Method [detection limit] if any	Other Countries/States Which Also Regulate	GAFTI Comments
1317-36-8	Lead monoxide (lead oxide)	over 0.1%	EU	REACH SVHC (Substances of Very High Concern)			
1314-41-6	Orange lead (lead tetroxide)						
12060-00-3	Lead titanium trioxide						
12626-81-2	Lead titanium zirconium oxide						
12065-90-6	Pentalead tetraoxide sulphate						
8012-00-8	Pyrochlore, antimony lead yellow						
68784-75-8	Silicic acid (H <sub>2</sub> Si <sub>2</sub> O <sub>5</sub> ), barium salt (1:1), lead-doped [with lead (Pb) content above the applicable generic concentration limit for 'toxicity for reproduction' Repr. 1A (CLP) or category 1 (DSD); the substance is a member of the group entry of lead compounds, with index number 082-001-00-6 in Regulation (EC) No 1272/2008]						
11120-22-2	Silicic acid, lead salt						
62229-08-7	Sulfurous acid, lead salt, dibasic						
78-00-2	Tetraethyllead						
12202-17-4	Tetralead trioxide sulphate						
12141-20-7	Trilead dioxide phosphonate						
110-00-9	Furan						
75-56-9	Methyloxirane (Propylene oxide)						
64-67-5	Diethyl sulphate						
77-78-1	Dimethyl sulphate						
143860-04-2	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine						
88-85-7	Dinoseb (6-sec-butyl-2,4-dinitrophenol)						
838-88-0	4,4'-methylenedi-o-toluidine						
101-80-4	4,4'-oxydianiline and its salts						
60-09-3	4-Aminoazobenzene;						
95-80-7	4-methyl-m-phenylenediamine (2,4-toluene-diamine)						
120-71-8	6-methoxy-m-toluidine (p-cresidine)						
92-67-1	Biphenyl-4-ylamine						
97-56-3	o-aminoazotoluene						
95-53-4	o-Toluidine;						

Appendix I Reporting: Appendix I lists regulations which have a reporting requirement that are not necessarily otherwise listed in the RSL.							
CAS Number	Chemical Name/Color Index Name	Restriction / Limit Triggering Reporting in Article	Country	Regulation	Test Method [detection limit] if any	Other Countries/States Which Also Regulate	GAFTI Comments
79-16-3	N-methylacetamide	over 0.1%	EU	REACH SVHC (Substances of Very High Concern)			
106-94-5	1-bromopropane; n-propyl bromide						
7778-44-1	Calcium Arsenate						
111-96-6	Bis(2-methoxyethyl) ether						
11103-86-9	Potassium hydroxyoctaoxodizincate dichromate						
6477-64-1	Lead dipicrate						
127-19-5	N,N Dimethylacetamide (DMAC)						
7778-39-4	Arsenic acid						
90-04-0	2-methoxyaniline; o-anisidine						
3687-31-8	Trilead diarsenate						
107-06-2	1,2 Dichloroethane						
49663-84-5	Pentazinc chromate octahydroxide						
25214-70-4	Formaldehyde, oligomeric reaction products with aniline (technical MDA)						
117-82-8	Bis(2methoxyethyl) phthalate						
140-66-9	4-(1,1,3,3, tetramethylbutyl)phenol						
13424-46-9	Lead azide, Lead diazide						
77-09-8	Phenolphthalein						
24613-89-6	Dichromium tris(chromate)	over 0.1%	EU	REACH SVHC (Substances of Very High Concern)			
15245-44-0	Lead Styphnate						
101-14-4	2,2-dichloro-4,4,methylenedianiline						
112-49-2	1,2-bis(2methoxy-ethoxy) ethane (TEGDME; triglyme)						
110-71-4	1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)						
561-41-1	4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]						

Appendix I Reporting: Appendix I lists regulations which have a reporting requirement that are not necessarily otherwise listed in the RSL.							
CAS Number	Chemical Name/Color Index Name	Restriction / Limit Triggering Reporting in Article	Country	Regulation	Test Method [detection limit] if any	Other Countries/States Which Also Regulate	GAFTI Comments
50-32-8	Benzo[def]chrysene (Benzo[a]pyrene)						
90-94-8	4,4'-bis(dimethylamino) benzophenone (Michler's ketone)	over 0.1%	EU	REACH SVHC (Substances of Very High Concern)			
2580-56-5	[4-[[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Blue 26) [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]						
101-61-1	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)						
6786-83-0	α,α-Bis[4-(dimethylamino)phenyl]-4-(phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4) [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]						
1303-86-2	Diboron trioxide						
75-12-7	Formamide						
17570-76-2	Lead(II) bis(methanesulfonate)						
2451-62-9	TGIC (1,3,5, tris(oxiranyl methyl)-1,3 triazine-2,4,6 (1H,3H,5H)trione)						
59653-74-6	b-TGIC (1.3.5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6(1H3H,5H)trione)						
548-62-9	[4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3) [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]						
7440-43-9	Cadmium						

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CAS Number	Chemical Name/Color Index Name	Restriction / Limit Triggering Reporting in Article	Country	Regulation	Test Method [detection limit] if any	Other Countries/States Which Also Regulate	GAFTI Comments
3825-26-1	Ammonium pentadecafluorooctanoate (APFO)						
335-67-1	Pentadecafluorooctanoic acid (PFOA)						
131-18-0	Dipentyl phthalate (DPP)						
NA	4-Nonylphenol, branched and linear, ethoxylated [substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, ethoxylated covering UVCB- and well-defined substances, polymers and homologues, which include any of the individual isomers and/or combinations thereof]						
1306-19-0	Cadmium oxide						
1306-23-6	Cadmium sulphide						
573-58-0	Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate)(C.I. Direct Red 28)						
1937-37-7	Disodium 4-amino-3-[[4'-[(2,4-diaminophenyl)azo][1,1'-biphenyl]-4-yl]azo]-5-hydroxy-6-(phenylazo)naphthalene-2,7-disulphonate (C.I. Direct Black 38)	over 0.1%	EU	REACH SVHC (Substances of Very High Concern)			
84-75-3	Dihexyl phthalate						
96-45-7	Imidazolidine-2-thione (2-imidazoline-2-thiol)						
301-04-2	Lead di(acetate)						
25155-23-1	Trixylyl phosphate						
68515-50-4	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear						
10108-64-2	Cadmium chloride						
NA	Sodium perborate; perboric acid, sodium salt						

Appendix I Reporting: Appendix I lists regulations which have a reporting requirement that are not necessarily otherwise listed in the RSL.							
CAS Number	Chemical Name/Color Index Name	Restriction / Limit Triggering Reporting in Article	Country	Regulation	Test Method [detection limit] if any	Other Countries/States Which Also Regulate	GAFTI Comments
7632-04-4	Sodium peroxometaborate						
15571-58-1	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)						
-	Reaction mass of 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate and 2-ethylhexyl 10-ethyl-4-[[2-[(2-ethylhexyl)oxy]-2-oxoethyl]thio]-4-octyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (reaction mass of DOTE and MOTE)						
7790-79-6	Cadmium fluoride						
10124-36-4, 31119-53-6	Cadmium sulphate						
3846-71-7	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)						
25973-55-1	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)						
68515-51-5, 68648-93-1	1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with ≥ 0.3% of dihexyl phthalate (EC No. 201-559-5)						
-	5-sec-butyl-2-(2,4-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [1], 5-sec-butyl-2-(4,6-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [2] [covering any of the individual isomers of [1] and [2] or any combination thereof]	over 0.1%	EU	REACH SVHC (Substances of Very High Concern)			
1120-71-4	1,3-propanesultone						
3864-99-1	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)						
36437-37-3	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)						

Appendix I Reporting: Appendix I lists regulations which have a reporting requirement that are not necessarily otherwise listed in the RSL.							
CAS Number	Chemical Name/Color Index Name	Restriction / Limit Triggering Reporting in Article	Country	Regulation	Test Method [detection limit] if any	Other Countries/States Which Also Regulate	GAFTI Comments
98-95-3	Nitrobenzene						
375-95-1; 21049-39-8; 4149-60-4	Perfluorononan-1-oic acid (2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,9-heptafluorononanoic acid and its sodium and ammonium salts						
119313-12-1	2-Benzyl-2-dimethylamino-4'-morpholinobutyrophenone						
71868-10-5	2-Methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one						
71850-09-4	Diisohexyl phthalate						
Various	Perfluorobutane sulfonic acid (PFBS) and its salts						
6807-17-6	2,2-bis(4'-hydroxyphenyl)-4-methylpentane						
85-68-7*	Benzyl butyl phthalate (BBP)	over 0.1%	EU	REACH SVHC (Substances of Very High Concern)		Washington (U.S.)	
117-81-7*	Bis (2-ethylhexyl)phthalate (DEHP)						
84-74-2*	Dibutyl phthalate (DBP)						
110-80-5*	2-Ethoxyethanol						
109-86-4*	2-Methoxyethanol						
115-96-8*	Tris(2-chloroethyl)phosphate						
50-00-0	Formaldehyde	5 ppm	United States	Washington Children's Safe			
62-53-3	Aniline	1 ppm					
62-75-9	N-Nitrosodimethylamine	1 ppm					
71-43-2	Benzene	1 ppm					
75-01-4	Vinyl chloride	1 ppm					
75-07-0	Acetaldehyde	1 ppm					
75-09-2	Methylene chloride	1 ppm					
75-15-0	Carbon disulfide	10 ppm					
78-93-3	methyl ethyl ketone	1 ppm					
79-34-5	1,1,2,2,-Tetrachloroethane	1 ppm					
79-94-7	Tetrabromobisphenol A	20 ppm					



Appendix I Reporting: Appendix I lists regulations which have a reporting requirement that are not necessarily otherwise listed in the RSL.							
CAS Number	Chemical Name/Color Index Name	Restriction / Limit Triggering Reporting in Article	Country	Regulation	Test Method [detection limit] if any	Other Countries/States Which Also Regulate	GAFTI Comments
80-05-7	Bisphenol A	20 ppm		Product Act			
84-66-2	Diethyl phthalate	5 ppm					
84-75-3	Di-n-Hexyl phthalate	5 ppm					
85-44-9	Phthalic anhydride	100 ppm					
86-30-6	N-Nitrosodiphenylamine	1 ppm					
87-68-3	Hexachlorobutadiene	30 ppm					
94-13-3	Propyl paraben	30 ppm					
94-26-8	Butyl paraben	30 ppm					
95-53-4	2-Aminotoluene	1 ppm	United States	Washington Children's Safe Product Act		Candidate List	
95-80-7	2,4-Diaminotoluene	10 ppm					
99-76-3	Methyl paraben	30 ppm	United States	Washington Children's Safe Product Act			
99-96-7	p-Hydroxybenzoic acid	10 ppm					
100-41-4	Ethylbenzene	1 ppm					
100-42-5	Styrene	1 ppm					
104-40-5	4-Nonylphenol: 4-NP and its isomer mixtures including CAS 84852-15-3 and CAS 25154-52-3	10 ppm	United States	Washington Children's Safe Product Act		Candidate List	
106-47-8	para-Chloroaniline	60 ppm	United States	Washington Children's Safe Product Act			
107-13-1	Acrylonitrile	1 ppm					
107-21-1	Ethylene glycol	5 ppm					
108-88-3	Toluene	1 ppm					
108-95-2	Phenol	60 ppm					
117-84-0	Di-n-octyl phthalate (DnOP)	5 ppm					
118-74-1	Hexachlorobenzene	30 ppm					
119-93-7	3,3'-Dimethylbenzidine and Dyes Metabolized to 3,3'-Dimethylbenzidine	10 ppm					
120-47-8	Ethyl paraben	30 ppm					
123-91-1	1,4-Dioxane	1 ppm					

Appendix I Reporting: Appendix I lists regulations which have a reporting requirement that are not necessarily otherwise listed in the RSL.							
CAS Number	Chemical Name/Color Index Name	Restriction / Limit Triggering Reporting in Article	Country	Regulation	Test Method [detection limit] if any	Other Countries/States Which Also Regulate	GAFTI Comments
127-18-4	Perchloroethylene	0.5 ppm					
131-55-5	Benzophenone-2 (Bp-2): 2,2',4,4'-Tetrahydroxybenzophenone	20 ppm					
140-66-9	4-tert-Octylphenol; 1,1,2,2,-Tetramethyl-4-butylphenol	10 ppm	United States	Washington Children's Safe Product Act		Candidate List	
140-67-0	Estragole	10 ppm					
149-57-5	2-Ethylhexanoic acid	1 ppm					
556-67-2	Octamethylcyclotetrasiloxane	10 ppm	United States	Washington Children's Safe Product Act			
608-93-5	Benzene, pentachloro	1 ppm					
842-07-9	C.I. solvent yellow 14	1 ppm					
872-50-4	N-Methylpyrrolidone	50 ppm					
1163-19-5	2,2',3,3',4,4',5,5',6,6' Decabromodiphenyl ether; BDE-209	10 ppm	United States	Washington Children's Safe Product Act		Candidate List	
1763-23-1	Perfluorooctanyl sulphonic acid and its salts; PFOS	1 ppm					
1806-26-4	Phenol, 4-octyl-	10 ppm					
5466-77-3	2-Ethyl-hexyl-4-methoxycinnamate	5 ppm					
7439-97-6	Mercury & mercury compounds including methyl mercury (22967-92-6)	0.5 ppm	United States	Washington Children's Safe Product Act			
7439-98-7	Molybdenum & molybdenum compounds	1 ppm					
7440-36-0	Antimony & Antimony compounds	1 ppm					
7440-38-2	Arsenic & Arsenic compounds including arsenic trioxide (1327-53-3) & dimethyl arsenic (75-60-5)	1 ppm					
7440-43-9	Cadmium & cadmium compounds	1 ppm	United States	Washington Children's Safe Product Act		Candidate List	
7440-48-4	cobalt & cobalt compounds	1 ppm	United States	Washington Children's Safe			

Appendix I Reporting: Appendix I lists regulations which have a reporting requirement that are not necessarily otherwise listed in the RSL.							
CAS Number	Chemical Name/Color Index Name	Restriction / Limit Triggering Reporting in Article	Country	Regulation	Test Method [detection limit] if any	Other Countries/States Which Also Regulate	GAFTI Comments
25013-16-5	Butylated hydroxyanisole, BHA	10 ppm	United States	Children's Safe Product Act			
25637-99-4	Hexabromocyclododecane	10 ppm	United States	Washington Children's Safe Product Act		Candidate List	
26761-40-0	Diisodecyl phthalate (DIDP)	50 ppm	United States	Washington Children's Safe Product Act			
28553-12-0	Diisononyl phthalate (DINP)	50 ppm					
13674-87-8	tris(1,3-dichloro-2-propyl)phosphate	50ppm					

Appendix II Labeling: Appendix II lists regulations which have a labeling requirement that are not necessarily otherwise listed in the RSL.							
CAS Number	Chemical Name/Color Index Name	Restriction / Limit Triggering Labeling in Component	Country	Regulation	Test Method [detection limit] if any	Comment	GAFTI Comments
50-00-0	Formaldehyde (0 - 36 months)	20 ppm	Korea	Safety Quality Mark Act (KC Mark)		Age range off children's products in KC mark has been revised to: 3-14 years old Formaldehyde for children products (3-14 years): 75 mg/kg Innerwear and midwear (other than infant and children product): 75 mg/kg; outerwear (other than infant and children products): 300 mg/kg TBT for KC Mark infant product (0-36 months): 0.5 mg/kg; Others: 1.0 mg/kg	
	Formaldehyde (3 - 12 years)	75 ppm (innerwear), 300 ppm (outerwear); All Children's' products: Max 75 ppm					
various	Azo Dyes	30 ppm					
56573-85-4	Tributyltin (TBT)	0.5ppm for infant's 1.0 ppm for Children's					
1002-53-5	Dibutyltin (DBT) (0 - 36 months)	1 ppm					
624-49-7	Dimethyl Fumarate	0.1 ppm					
117-84-0	Di-n-octyl phthalate (DNOP)	0.10%	Korea	Safety Quality Mark Act (KC Mark)		Phthalates requirement in KC Mark:  Baby products (0-36 months): 0.1% (sum of DEHP, DBP, BBP, DIDP, DINP, DNOP)  Children product (3-14 years): 0.1% (sum of DEHP, DBP, BBP)	
117-81-7	Di (2-ethylhexyl) phthalate (DEHP)						
85-68-7	Benzyl Butyl phthalate (BBP)						
84-74-2	Di-n-butyl phthalate (DBP)						
68515-48-0 28553-12-0	Di-isononyl phthalate (DINP)						
68515-49-1 26761-40-0	Di-isodecyl phthalate (DIDP)						
32534-81-9	Penta-bromodiphenyl ether (pentaBDE) (0 - 12 years)						

Appendix II Labeling: Appendix II lists regulations which have a labeling requirement that are not necessarily otherwise listed in the RSL.							
CAS Number	Chemical Name/Color Index Name	Restriction / Limit Triggering Labeling in Component	Country	Regulation	Test Method [detection limit] if any	Comment	GAFTI Comments
32536-52-0	Octa-bromodiphenyl ether (octaBDE) (0 - 12 years)						
68112-30-1	TDBPP (0 - 12 years)						
various	Disperse Dyes	Not Detected Max. 50 ppm Polyester, Nylon, Acrylic, Acetate, Triacetate, Vinyl chloride	Korea	Safety Quality Mark Act (KC Mark)		Disperse dyes only applies to baby product, children and innerwear	
7439-92-1	Lead (Pb) ( 0 - 12 years)	40 ppm- 100ppm (lead in substrate) 40 ppm- 90ppm (lead in coating)	Illinois, U.S.A	Lead Poisoning Prevention Act		Toys with paints, child care articles, children's jewelry	
	Lead (Pb) (above 16 years)	600 ppm					
	NP/NPEO	100ppm	Korea	Safety Quality Mark Act (KC Mark)			
Various	PFAS Chemicals	intentionally added	Colorado	Colorado Revised Statutes 24-33.5-1234		Notification of customer required for firefighting personal protective equipment	

<b>Change Log from RSL 20 to RSL 21</b>	
Arylamines	
Asbestos	
Dioxins & Furans	
Disperse Dyes	
Flame Retardants	
Fluorinated Greenhouse Gases	
Metals	
Misc.	Update of PFOS regulation to (EU) 2019/1021 on persistent organic pollutants (recast)
Organotin Compounds	
Pesticides	
Phthalates	Added South Korea (Standards Notice No. 2019-0352) on BBP, DBP, and DEHP
Solvents	
Appendix I: Reporting	Addition of 5 new SVHC chemicals to EU REACH
Appendix II: Labeling	Addition of Colorado Revised Statutes 24-33.5-1234 on PFAS in firefighting personal protective equipment

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