MANUFACTURING RESTRICTED SUBSTANCES LIST ZEEMAN

MRSL 2.0

FEBRUARY 2022

Introduction MRSL 2.0 (version February 2022)

BACKGROUND

Dear Supplier

As a next step to responsible chemical management Zeeman has updated the Zeeman Manufacturing Restricted Substances List (MRSL) version 2.0 December 2020 into version 2.0 February 2022. This latest version is in line with the Zero Discharge Hazardous Chemicals (ZDHC) MRSL version 2.0 February 2022. The ZDHC MRSL is leading for the whole Textile, Leather and Footwear Industry.

The Zeeman Restricted Substances List (RSL version 6.0) and the Zeeman MRSL (version 2.0 February 2022) are two separate documents. The RSL and the MRSL should be communicated to all (raw material) suppliers. All chemicals used in any production process must meet the requirements of the Zeeman MRSL and all products delivered to Zeeman must meet the requirements of the RSL.

The Zeeman MRSL is a list of chemical substances. These substances are banned from intentional use in facilities processing textile materials, leather, rubber, foam, adhesives and trim parts in textiles, apparel, and footwear. Using chemical formulations that conform to the Zeeman MRSL allows suppliers to assure themselves, and their customers, that banned chemical substances are not intentionally used during production and manufacturing processes.

Note: Threshold Limit values on restricted substances in chemical formulations are in some cases substantially higher than limits on restricted substances in finished products. This is because restricted substances in finished products are almost always found in smaller concentrations than in the chemical formulations used to produce them. Chemical formulations are highly concentrated before being diluted upon application to textiles and other materials.

The Zeeman MRSL goes beyond the traditional approaches to chemical restrictions, which only apply to finished products (Zeeman Restricted Substances List - RSL). This approach helps to manage the input of chemicals in the wet processing steps and protect consumers while minimising the possible impact of banned hazardous chemicals on production workers, local communities, and the environment.

Chemical formulations covered by restrictions in the Zeeman MRSL include, but are not limited to, cleaners, adhesives, paints, inks, detergents, dyes, colourants, auxiliaries, coatings and finishing agents used during raw material production, wet processing, process machinery maintenance, wastewater treatment, sanitation, and pest control. Zeeman MRSL limits apply to substances in commercially available formulations, not those from earlier stages of chemical synthesis.

PURPOSE

The Zeeman MRSL offers suppliers a single, harmonised list of chemical substances banned from intentional use during manufacturing and related processes in supply chains of the textile, apparel, and footwear (including leather and rubber) industries (the Industry).

The Zeeman MRSL applies to textiles, leather, rubber, foam and adhesives, recognising that these materials use different processes. Filters for each material ensure limits reflect the processes.

Be aware that meeting the requirements of the Zeeman MRSL does not:

a) replace applicable national environmental or workplace safety restrictions. Worker exposure to chemical substances listed in this document, along with other hazardous substances, must not exceed occupational exposure limits
b) guarantee compliance with or take the place of legal or regulatory requirements relating to the use, storage, and transport of chemical products."
The Zeeman MRSL does not replace legal or brand-specific restrictions on hazardous substances in finished products, including the material components of them.

Should you have any questions or require further information, please contact Arnoud van Vliet CSR & Quality Manager.

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Explanation MRSL 2.0 (version February 2022)

ZEEMAN MRSL CHAPTERS

Chapter 1: Zeeman MRSL

This applies to chemical formulations and substances used during creation and wet processing of textile fibres, and during creation and processing of (coated) fabrics, leather, rubber, foam and adhesives.

Group A: Supplier Guidance

Group A substances are banned from intentional use in facilities that process raw materials and manufacture finished products.

Group B: Formulation Limit

Group B substances are restricted to concentration limits in chemical formulations commercially available from chemical suppliers. These limits ban intentional use while allowing for reasonable expected manufacturing impurities, which should be consistently achievable by responsible chemical manufacturers.

Chapter 2: Zeeman MRSL Candidate List

Found in Chapter 2 of the Zeeman MRSL. Proposed Zeeman MRSL additions can meet listing criteria, as described in the Principles and Procedures, yet lack safer alternatives at scale. Including such substances on the Candidate List encourages the innovation of alternatives.

Chapter 3: Zeeman MRSL Archived Substances

Archived substances, or those without strong evidence of current use in Industry, but with clear evidence of historical use.

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MRSL version 2.0 Chapter 1 (version February 2022)

SUBSTANCE	CAS NUMBER	APPLICABILITY	GROUP A: SUPPLIER GUIDANCE	GROUP B: FORMULATION LIMIT	GENERAL TECHNIQUES FOR ANALYSING CHEMICALS	RELEVANCE OF THE RESTRICTION
ALKYLPHENOLS (AP) AND ALKYLPHENOL ETHOXYLATES (APEOs): INCLUDING ALL ISOMERS						
Nonylphenol (NP),mixed isomers	104-40-5 11066-49- 2 25154-52- 3 84852-15- 3	Textile	No intentional use	250 ppm	Liquid chromatography-mass spectrometry (LC-MS), gas chromatography-mass spectrometry (GC-MS)	Potential Uses in Apparel and Footwear Textile Processing: APEOs can be used as or found in: detergents, scouring agents, spinning oils, wetting agents, softeners, emulsifier/dispersing agents for dyes and prints, impregnating agents, de- gumming for silk production, dyes and pigment preparations, polyester padding and down/feather fillings.
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		
Nonylphenolethoxylates (NPEO)	9016-45-9 26027-38- 3 37205-87- 1 68412-54- 4 127087-87 - 0	Textile	No intentional use	500 ppm	Liquid chromatography-mass spectrometry (LC-MS), gas chromatography-mass spectrometry (GC-MS)	
		Leather	No intentional use	500 ppm		
		Polymers (R,F,A)*	No intentional use	500 ppm		
Octylphenolethoxyla tes (OPEO)	9002-93-1 9036-19-5 68987-90- 6	Textile	No intentional use	500 ppm	Liquid chromatography-mass spectrometry (LC-MS), gas chromatography-mass spectrometry (GC-MS)	
		Leather	No intentional use	500 ppm		
		Polymers (R,F,A)*	No intentional use	500 ppm		
Octylphenol (OP),mixed isomers	140-66-9 1806-26-4 27193-28- 8	Textile	No intentional use	250 ppm	Liquid chromatography-mass spectrometry (LC-MS), gas chromatography-mass spectrometry (GC-MS)	
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		

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ANTI-MICROBIALS & BIOCIDES						
o-Phenylphenol (+salts)	90-43-7	Textile	No intentional use	5000 ppm	Solvent extraction LC MS, LC DAD, GC MS	Potential Uses in Apparel and Footwear Textile Processing: These substances have biocidal properties, making it useful for various preservation applications.
		Leather		Use is permitted and OPP is approved for use under BPR PT6 as a preservative for formulations.		
		Polymers (R,F,A)*	No Limit			
Permethrin*	Multiple	Textile	No intentional use	250 ppm except for processes mentioned	Solvent extraction LC MS/MS, GC MS/MS	
		Leather	No intentional use	250 ppm except for processes mentioned		
		Polymers (R,F,A)*	No intentional use	250 ppm except for processes mentioned		
* In most situations, deliberate use is not permitted. However, it should be noted that Permethrin is approved for use on PT18 under BPR and is permitted for use on wool curtains and carpets, rugs and floor coverings. Permethrin is permitted for PPE use (EU 2016/425, EPA registered product, APVMA Registered Product, PMRA Registered Product, etc.). Also, its use is sometimes stipulated for certain end uses such as military. All efforts should be made to maximise the durability of the chemical finish and to minimise losses to the environment.						
Triclosan	3380-34-5	Textile	No intentional use	250 ppm	Solvent extraction LC MS, DAD	
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		

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CHLORINATED PARAFFINS						
Short-chain Chlorinatedparaffin (C10– C13)	85535-84-8	Textile	No intentional use	50 ppm	prEN ISO 22699-2	Potential Uses in Apparel and Footwear Textile Processing: May be used as softeners, flame retardants, or fat-liquoring agents in leather production; also as a plasticizer in polymer production.
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No Limit			
Medium-chain Chlorinatedparaffins (MCCPs) (C14-C17)	85535-85-9	Textile	No intentional use	500 ppm	prEN ISO 22699-2	
		Leather	No intentional use	500 ppm		
		Polymers (R,F,A)*	No intentional use	500 ppm		
CHLOROBENZENES AND CHLOROTOLUENES						
1,2-dichlorobenzene	95-50-1	Textile	No intentional use	500 ppm	GC-MS	Potential Uses in Apparel and Footwear Textile Processing: Chlorobenzenes and Chlorotoluenes (chlorinated aromatic hydrocarbons) can be used as carriers in the dyeing process of polyester or wool/polyester fibres. They can also be used as solvents.
		Leather	No intentional use	500 ppm		
		Polymers (R,F,A)*	No intentional use	500 ppm		
Other isomers of mono-, di-, tri-, tetra-, penta- and hexa-Chlorobenzene and mono-, di-, tri-, tetra- and penta-chlorotoluene	Multiple	Textile	No intentional use	Sum = 200 ppm tetrachlorotoluene, and trichlorotoluene 10 ppm each	GC-MS	
		Leather	No intentional use	Sum = 200 ppm tetrachlorotoluene, and trichlorotoluene 10 ppm each		
		Polymers (R,F,A)*	No intentional use	Sum = 200 ppm tetrachlorotoluene, and trichlorotoluene 10 ppm each		

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CHLOROPHENOLS						
Pentachlorophenol (PCP)[1]	87-86-5	Textile	No intentional use	Sum of substances[1] = 20 ppm	GC-MS EN ISO 17070	Potential Uses in Apparel and Footwear Textile Processing: Chlorophenols are polychlorinated compounds used as preservatives or pesticides. Pentachlorophenol (PCP) and tetrachlorophenol (TeCP) have been used in the past to prevent mould when storing/ transporting raw hides and leather. They are now regulated and should not be used.
		Leather	No intentional use	Sum of substances[1] = 20 ppm		
		Polymers (R,F,A)*	No intentional use	Sum of substances[1] = 20 ppm		
Tetrachlorophenol(TeCP)[1]	Multiple	Textile	No intentional use	Sum of substances[1] = 20 ppm	GC-MS EN ISO 17070	
		Leather	No intentional use	Sum of substances[1] = 20 ppm		
		Polymers (R,F,A)*	No intentional use	Sum of substances[1] = 20 ppm		
2,4-dichlorophenol[2]	120-83-2	Textile	No intentional use	Sum of substances[2] = 50 ppm	GC-MS EN ISO 17070	
		Leather	No intentional use	Sum of substances[2] = 50 ppm		
		Polymers (R,F,A)*	No intentional use	Sum of substances[2] = 50 ppm		
2-chlorophenol[2]	95-57-8	Textile	No intentional use	Sum of substances[2] = 50 ppm	GC-MS EN ISO 17070	
		Leather	No intentional use	Sum of substances[2] = 50 ppm		
		Polymers (R,F,A)*	No intentional use	Sum of substances[2] = 50 ppm		
2,5-dichlorophenol[2]	583-78-8	Textile	No intentional use	Sum of substances[2] = 50 ppm	GC-MS EN ISO 17070	
		Leather	No intentional use	Sum of substances[2] = 50 ppm		
		Polymers (R,F,A)*	No intentional use	Sum of substances[2] = 50 ppm		

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CHLOROPHENOLS CONTINUED						
2,6-dichlorophenol[2]	87-65-0	Textile	No intentional use	Sum of substances[2] = 50 ppm	GC-MS EN ISO 17070	Potential Uses in Apparel and Footwear Textile Processing: Chlorophenols are polychlorinated compounds used as preservatives or pesticides. Pentachlorophenol (PCP) and tetrachlorophenol (TeCP) have been used in the past to prevent mould when storing/ transporting raw hides and leather. They are now regulated and should not be used.
		Leather	No intentional use	Sum of substances[2] = 50 ppm		
		Polymers (R,F,A)*	No intentional use	Sum of substances[2] = 50 ppm		
2,4,6-trichlorophenol[2]	88-06-2	Textile	No intentional use	Sum of substances[2] = 50 ppm	GC-MS EN ISO 17070	
		Leather	No intentional use	Sum of substances[2] = 50 ppm		
		Polymers (R,F,A)*	No intentional use	Sum of substances[2] = 50 ppm		
3,5-dichlorophenol[2]	591-35-5	Textile	No intentional use	Sum of substances[2] = 50 ppm	GC-MS EN ISO 17070	
		Leather	No intentional use	Sum of substances[2] = 50 ppm		
		Polymers (R,F,A)*	No intentional use	Sum of substances[2] = 50 ppm		
2,4,5-trichlorophenol[2]	95-95-4	Textile	No intentional use	Sum of substances[2] = 50 ppm	GC-MS EN ISO 17070	
		Leather	No intentional use	Sum of substances[2] = 50 ppm		
		Polymers (R,F,A)*	No intentional use	Sum of substances[2] = 50 ppm		
2,3-dichlorophenol[2]	576-24-9	Textile	No intentional use	Sum of substances[2] = 50 ppm	GC-MS EN ISO 17070	
		Leather	No intentional use	Sum of substances[2] = 50 ppm		
		Polymers (R,F,A)*	No intentional use	Sum of substances[2] = 50 ppm		

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CHLOROPHENOLS CONTINUED						
3,4-dichlorophenol[2]	95-77-2	Textile	No intentional use	Sum of substances[2] = 50 ppm	GC-MS EN ISO 17070	Potential Uses in Apparel and Footwear Textile Processing: Chlorophenols are polychlorinated compounds used as preservatives or pesticides. Pentachlorophenol (PCP) and tetrachlorophenol (TeCP) have been used in the past to prevent mould when storing/ transporting raw hides and leather. They are now regulated and should not be used.
		Leather	No intentional use	Sum of substances[2] = 50 ppm		
		Polymers (R,F,A)*	No intentional use	Sum of substances[2] = 50 ppm		
3-chlorophenol[2]	108-43-0	Textile	No intentional use	Sum of substances[2] = 50 ppm	GC-MS EN ISO 17070	
		Leather	No intentional use	Sum of substances[2] = 50 ppm		
		Polymers (R,F,A)*	No intentional use	Sum of substances[2] = 50 ppm		
4-chlorophenol[2]	106-48-9	Textile	No intentional use	Sum of substances[2] = 50 ppm	GC-MS EN ISO 17070	
		Leather	No intentional use	Sum of substances[2] = 50 ppm		
		Polymers (R,F,A)*	No intentional use	Sum of substances[2] = 50 ppm		
2,3,4-trichlorophenol[2]	15950-66-0	Textile	No intentional use	Sum of substances[2] = 50 ppm	GC-MS EN ISO 17070	
		Leather	No intentional use	Sum of substances[2] = 50 ppm		
		Polymers (R,F,A)*	No intentional use	Sum of substances[2] = 50 ppm		
3,4,5-trichlorophenol[2]	609-19-8	Textile	No intentional use	Sum of substances[2] = 50 ppm	GC-MS EN ISO 17070	
		Leather	No intentional use	Sum of substances[2] = 50 ppm		
		Polymers (R,F,A)*	No intentional use	Sum of substances[2] = 50 ppm		

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CHLOROPHENOLS CONTINUED						
2,3,5-trichlorophenol[2]	933-78-8	Textile	No intentional use	Sum of substances[2] = 50 ppm	GC-MS EN ISO 17070	Potential Uses in Apparel and Footwear Textile Processing: Chlorophenols are polychlorinated compounds used as preservatives or pesticides. Pentachlorophenol (PCP) and tetrachlorophenol (TeCP) have been used in the past to prevent mould when storing/ transporting raw hides and leather. They are now regulated and should not be used.
		Leather	No intentional use	Sum of substances[2] = 50 ppm		
		Polymers (R,F,A)*	No intentional use	Sum of substances[2] = 50 ppm		
2,3,6-trichlorophenol[2]	933-75-5	Textile	No intentional use	Sum of substances[2] = 50 ppm	GC-MS EN ISO 17070	
		Leather	No intentional use	Sum of substances[2] = 50 ppm		
		Polymers (R,F,A)*	No intentional use	Sum of substances[2] = 50 ppm		
DYES - AZO (FORMING RESTRICTED AMINES)						
4,4-oxydianiline	101-80-4	Textile	No intentional use	150 ppm	LC, GC	Potential Uses in Apparel and Footwear Textile Processing: Azo dyes and pigments are colourants that incorporate one or several azo groups (-N=N-) bound with aromatic compounds. Thousands of azo dyes exist, but only those that degrade to form the listed cleavable amines are restricted. Azo dyes that release these amines are regulated and should no longer be used for the dyeing of textiles. Please find a non-exhaustive list of dyes which can form restricted amines in the appendix page 55-57.
		Leather	No intentional use	150 ppm		
		Polymers (R,F,A)*	No intentional use	150 ppm		
4,4-methylene-bis-(2-chloro-aniline)	101-14-4	Textile	No intentional use	150 ppm	LC, GC	
		Leather	No intentional use	150 ppm		
		Polymers (R,F,A)*	No intentional use	150 ppm		
3,3-dimethoxylbenzidine	119-90-4	Textile	No intentional use	150 ppm	LC, GC	
		Leather	No intentional use	150 ppm		
		Polymers (R,F,A)*	No intentional use	150 ppm		

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DYES - AZO (FORMING RESTRICTED AMINES) CONTINUED						
4,4-methylenedianiline	101-77-9	Textile	No intentional use	150 ppm	LC, GC	Potential Uses in Apparel and Footwear Textile Processing: Azo dyes and pigments are colourants that incorporate one or several azo groups (-N=N-) bound with aromatic compounds. Thousands of azo dyes exist, but only those that degrade to form the listed cleavable amines are restricted. Azo dyes that release these amines are regulated and should no longer be used for the dyeing of textiles. Please find a non-exhaustive list of dyes which can form restricted amines in the appendix (page 55-57).
		Leather	No intentional use	150 ppm		
		Polymers (R,F,A)*	No intentional use	150 ppm		
4-chloroaniline	106-47-8	Textile	No intentional use	150 ppm	LC, GC	
		Leather	No intentional use	150 ppm		
		Polymers (R,F,A)*	No intentional use	150 ppm		
3,3-dimethylbenzidine	119-93-7	Textile	No intentional use	150 ppm	LC, GC	
		Leather	No intentional use	150 ppm		
		Polymers (R,F,A)*	No intentional use	150 ppm		
6-methoxy-m-toluidine	120-71-8	Textile	No intentional use	150 ppm	LC, GC	
		Leather	No intentional use	150 ppm		
		Polymers (R,F,A)*	No intentional use	150 ppm		
4,4-thiodianiline	139-65-1	Textile	No intentional use	150 ppm	LC, GC	
		Leather	No intentional use	150 ppm		
		Polymers (R,F,A)*	No intentional use	150 ppm		

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DYES - AZO (FORMING RESTRICTED AMINES) CONTINUED						
4-aminoazobenzene	60-09-3	Textile	No intentional use	150 ppm	LC, GC	Potential Uses in Apparel and Footwear Textile Processing: Azo dyes and pigments are colourants that incorporate one or several azo groups (-N=N-) bound with aromatic compounds. Thousands of azo dyes exist, but only those that degrade to form the listed cleavable amines are restricted. Azo dyes that release these amines are regulated and should no longer be used for the dyeing of textiles. Please find a non-exhaustive list of dyes which can form restricted amines in the appendix.
		Leather	No intentional use	150 ppm		
		Polymers (R,F,A)*	No intentional use	150 ppm		
2,4,5-trimethylaniline	137-17-7	Textile	No intentional use	150 ppm	LC, GC	
		Leather	No intentional use	150 ppm		
		Polymers (R,F,A)*	No intentional use	150 ppm		
o-anisidine	90-04-0	Textile	No intentional use	150 ppm	LC, GC	
		Leather	No intentional use	150 ppm		
		Polymers (R,F,A)*	No intentional use	150 ppm		
4,4-methylenedi-o-toluidine	838-88-0	Textile	No intentional use	150 ppm	LC, GC	
		Leather	No intentional use	150 ppm		
		Polymers (R,F,A)*	No intentional use	150 ppm		
3,'3-dichlorobenzidine	91-94-1	Textile	No intentional use	150 ppm	LC, GC	
		Leather	No intentional use	150 ppm		
		Polymers (R,F,A)*	No intentional use	150 ppm		

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DYES - AZO (FORMING RESTRICTED AMINES) CONTINUED						
4-methoxy-m-phenylenediamine	615-05-4	Textile	No intentional use	150 ppm	LC, GC	Potential Uses in Apparel and Footwear Textile Processing: Azo dyes and pigments are colourants that incorporate one or several azo groups (-N=N-) bound with aromatic compounds. Thousands of azo dyes exist, but only those that degrade to form the listed cleavable amines are restricted. Azo dyes that release these amines are regulated and should no longer be used for the dyeing of textiles. Please find a non-exhaustive list of dyes which can form restricted amines in the appendix.
		Leather	No intentional use	150 ppm		
		Polymers (R,F,A)*	No intentional use	150 ppm		
2,6-xylidine	87-62-7	Textile	No intentional use	150 ppm	LC, GC	
		Leather	No intentional use	150 ppm		
		Polymers (R,F,A)*	No intentional use	150 ppm		
2-naphthylamine	91-59-8	Textile	No intentional use	150 ppm	LC, GC	
		Leather	No intentional use	150 ppm		
		Polymers (R,F,A)*	No intentional use	150 ppm		
o-toluidine	95-53-4	Textile	No intentional use	150 ppm	LC, GC	
		Leather	No intentional use	150 ppm		
		Polymers (R,F,A)*	No intentional use	150 ppm		
Benzidine	92-87-5	Textile	No intentional use	150 ppm	LC, GC	
		Leather	No intentional use	150 ppm		
		Polymers (R,F,A)*	No intentional use	150 ppm		

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DYES - AZO (FORMING RESTRICTED AMINES) CONTINUED						
4-chloro-o-toluidine	95-69-2	Textile	No intentional use	150 ppm	LC, GC	Potential Uses in Apparel and Footwear Textile Processing: Azo dyes and pigments are colourants that incorporate one or several azo groups (-N=N-) bound with aromatic compounds. Thousands of azo dyes exist, but only those that degrade to form the listed cleavable amines are restricted. Azo dyes that release these amines are regulated and should no longer be used for the dyeing of textiles. Please find a non-exhaustive list of dyes which can form restricted amines in the appendix.
		Leather	No intentional use	150 ppm		
		Polymers (R,F,A)*	No intentional use	150 ppm		
4-aminodiphenyl	92-67-1	Textile	No intentional use	150 ppm	LC, GC	
		Leather	No intentional use	150 ppm		
		Polymers (R,F,A)*	No intentional use	150 ppm		
4-methyl-m-phenylenediamine	95-80-7	Textile	No intentional use	150 ppm	LC, GC	
		Leather	No intentional use	150 ppm		
		Polymers (R,F,A)*	No intentional use	150 ppm		
2,4-xylidine	95-68-1	Textile	No intentional use	150 ppm	LC, GC	
		Leather	No intentional use	150 ppm		
		Polymers (R,F,A)*	No intentional use	150 ppm		
o-aminoazotoluene	97-56-3	Textile	No intentional use	150 ppm	LC, GC	
		Leather	No intentional use	150 ppm		
		Polymers (R,F,A)*	No intentional use	150 ppm		

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DYES - AZO (FORMING RESTRICTED AMINES) CONTINUED						
5-nitro-o-toluidine	99-55-8	Textile	No intentional use	150 ppm	LC, GC	Potential Uses in Apparel and Footwear Textile Processing: Azo dyes and pigments are colourants that incorporate one or several azo groups (-N=N-) bound with aromatic compounds. Thousands of azo dyes exist, but only those that degrade to form the listed cleavable amines are restricted. Azo dyes that release these amines are regulated and should no longer be used for the dyeing of textiles. Please find a non-exhaustive list of dyes which can form restricted amines in the appendix.
		Leather	No intentional use	150 ppm		
		Polymers (R,F,A)*	No intentional use	150 ppm		
2-Naphthylammoniumacetate	553-00-4	Textile	No intentional use	150 ppm	LC, GC	
		Leather	No intentional use	150 ppm		
		Polymers (R,F,A)*	No intentional use	150 ppm		
4-chloro-o-toluidinium chloride	3165-93-3	Textile	No intentional use	150 ppm	LC, GC	
		Leather	No intentional use	150 ppm		
		Polymers (R,F,A)*	No intentional use	150 ppm		
4-methoxy-m-phenylene diammonium sulphate; 2,4-diaminoanisole sulphate	39156-41-7	Textile	No intentional use	150 ppm	LC, GC	
		Leather	No intentional use	150 ppm		
		Polymers (R,F,A)*	No intentional use	150 ppm		
2,4,5-trimethylaniline hydrochloride	21436-97-5	Textile	No intentional use	150 ppm	LC, GC	
		Leather	No intentional use	150 ppm		
		Polymers (R,F,A)*	No intentional use	150 ppm		

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SUBSTANCE	CAS NUMBER	APPLICABILITY	GROUP A: SUPPLIER GUIDANCE	GROUP B: FORMULATION LIMIT	GENERAL TECHNIQUES FOR ANALYSING CHEMICALS	RELEVANCE OF THE RESTRICTION
DYES - CARCINOGENIC OR EQUIVALENT CONCERN						
C.I. Basic Violet 14	632-99-5	Textile	No intentional use	250 ppm	DIN 54231	Potential Uses in Apparel and Footwear Textile Processing: Most of these substances are regulated and should no longer be used for the dyeing of textiles.
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		
C.I. Direct Black 38	1937-37-7	Textile	No intentional use	250 ppm	DIN 54231	
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		
C.I. Direct Blue 6	2602-46-2	Textile	No intentional use	250 ppm	DIN 54231	
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		
C.I. Acid Red 26	3761-53-3	Textile	No intentional use	250 ppm	DIN 54231	
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		
C.I. Direct Red 28	573-58-0	Textile	No intentional use	250 ppm	DIN 54231	
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		

SUBSTANCE	CAS NUMBER	APPLICABILITY	GROUP A: SUPPLIER GUIDANCE	GROUP B: FORMULATION LIMIT	GENERAL TECHNIQUES FOR ANALYSING CHEMICALS	RELEVANCE OF THE RESTRICTION
DYES - CARCINOGENIC OR EQUIVALENT CONCERN CONTINUED						
C.I. Basic Red 9	569-61-9	Textile	No intentional use	250 ppm	DIN 54231	Potential Uses in Apparel and Footwear Textile Processing: Most of these substances are regulated and should no longer be used for the dyeing of textiles.
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		
C.I. Disperse Blue 1	2475-45-8	Textile	No intentional use	250 ppm	DIN 54231	
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		
C.I. Basic Blue 26 (with Michler's Ketone > 0.1%)	2580-56-5	Textile	No intentional use	250 ppm	DIN 54231	
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		
C.I. Disperse Blue 3	2475-46-9	Textile	No intentional use	250 ppm	DIN 54231	
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		
C.I. Basic Green 4 (Malachite Green Oxalate)	2437-29-8	Textile	No intentional use	250 ppm	DIN 54231	
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		

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DYES - CARCINOGENIC OR EQUIVALENT CONCERN CONTINUED						
C.I. Basic Green 4 (Malachite Green Chloride)	569-64-2	Textile	No intentional use	250 ppm	DIN 54231	Potential Uses in Apparel and Footwear Textile Processing: Most of these substances are regulated and should no longer be used for the dyeing of textiles.
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		
Disperse Orange 11	82-28-0	Textile	No intentional use	250 ppm	DIN 54231	
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		
C.I. Basic Green 4 (Malachite Green)	10309-95- 2	Textile	No intentional use	250 ppm	DIN 54231	
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		
C.I. Acid Violet 49	1694-09-3	Textile	No intentional use	250 ppm	DIN 54231	
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		
Basic violet 3 with >0.1% of Michler´s Ketone	548-62-9	Textile	No intentional use	250 ppm	DIN 54231	
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		

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DYES -DISPERSE (SENSITISING)						
Disperse Yellow 39	12236-29- 2	Textile	No intentional use	250 ppm	LC	Potential Uses in Apparel and Footwear Textile Processing: Disperse dyes are a class of water- insoluble dyes that penetrate the fibre system of synthetic or manufactured fibres and are held in place by physical forces without forming chemical bonds. Disperse dyes are used in synthetic fibre (e.g. polyester, acetate, polyamide). Restricted disperse dyes are suspected of causing allergic reactions and should no longer be used for dyeing of textiles.
		Leather	No Limit			
		Polymers (R,F,A)*	No Limit			
Disperse Brown 1	23355-64- 8	Textile	No intentional use	250 ppm	LC	
		Leather	No Limit			
		Polymers (R,F,A)*	No Limit			
Disperse Yellow 1	119-15-3	Textile	No intentional use	250 ppm	LC	
		Leather	No Limit			
		Polymers (R,F,A)*	No Limit			
Disperse Blue 102	12222-97- 8	Textile	No intentional use	250 ppm	LC	
		Leather	No Limit			
		Polymers (R,F,A)*	No Limit			
Disperse Blue 106	12223-01- 7	Textile	No intentional use	250 ppm	LC	
		Leather	No Limit			
		Polymers (R,F,A)*	No Limit			

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DYES -DISPERSE (SENSITISING) CONTINUED						
Disperse Orange 37/59/76	13301-61- 6	Textile	No intentional use	250 ppm	LC	Potential Uses in Apparel and Footwear Textile Processing: Disperse dyes are a class of water- insoluble dyes that penetrate the fibre system of synthetic or manufactured fibres and are held in place by physical forces without forming chemical bonds. Disperse dyes are used in synthetic fibre (e.g. polyester, acetate, polyamide). Restricted disperse dyes are suspected of causing allergic reactions and should no longer be used for dyeing of textiles.
		Leather	No Limit			
		Polymers (R,F,A)*	No Limit			
Disperse Orange 1	2581-69-3	Textile	No intentional use	250 ppm	LC	
		Leather	No Limit			
		Polymers (R,F,A)*	No Limit			
Disperse Yellow 3	2832-40-8	Textile	No intentional use	250 ppm	LC	
		Leather	No Limit			
		Polymers (R,F,A)*	No Limit			
Disperse Red 11	2872-48-2	Textile	No intentional use	250 ppm	LC	
		Leather	No Limit			
		Polymers (R,F,A)*	No Limit			
Disperse Red 1	2872-52-8	Textile	No intentional use	250 ppm	LC	
		Leather	No Limit			
		Polymers (R,F,A)*	No Limit			

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DYES -DISPERSE (SENSITISING) CONTINUED						
Disperse Red 17	3179-89-3	Textile	No intentional use	250 ppm	LC	Potential Uses in Apparel and Footwear Textile Processing: Disperse dyes are a class of water- insoluble dyes that penetrate the fibre system of synthetic or manufactured fibres and are held in place by physical forces without forming chemical bonds. Disperse dyes are used in synthetic fibre (e.g. polyester, acetate, polyamide). Restricted disperse dyes are suspected of causing allergic reactions and should no longer be used for dyeing of textiles.
		Leather	No Limit			
		Polymers (R,F,A)*	No Limit			
Disperse Yellow 49	54824-37- 2	Textile	No intentional use	250 ppm	LC	
		Leather	No Limit			
		Polymers (R,F,A)*	No Limit			
Disperse Blue 7	3179-90-6	Textile	No intentional use	250 ppm	LC	
		Leather	No Limit			
		Polymers (R,F,A)*	No Limit			
Disperse Blue 26	3860-63-7	Textile	No intentional use	250 ppm	LC	
		Leather	No Limit			
		Polymers (R,F,A)*	No Limit			
Disperse Yellow 9	6373-73-5	Textile	No intentional use	250 ppm	LC	
		Leather	No Limit			
		Polymers (R,F,A)*	No Limit			

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DYES -DISPERSE (SENSITISING) CONTINUED						
Disperse Blue 124	61951-51- 7	Textile	No intentional use	250 ppm	LC	Potential Uses in Apparel and Footwear Textile Processing: Disperse dyes are a class of water- insoluble dyes that penetrate the fibre system of synthetic or manufactured fibres and are held in place by physical forces without forming chemical bonds. Disperse dyes are used in synthetic fibre (e.g. polyester, acetate, polyamide). Restricted disperse dyes are suspected of causing allergic reactions and should no longer be used for dyeing of textiles.
		Leather	No Limit			
		Polymers (R,F,A)*	No Limit			
Disperse Blue 35	12222-75- 2	Textile	No intentional use	250 ppm	LC	
		Leather	No Limit			
		Polymers (R,F,A)*	No Limit			
Disperse Orange 3	730-40-5	Textile	No intentional use	250 ppm	LC	
		Leather	No Limit			
		Polymers (R,F,A)*	No Limit			
Disperse Blue 35	56524-77- 7	Textile	No intentional use	250 ppm	LC	
		Leather	No Limit			
		Polymers (R,F,A)*	No Limit			

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DYES - NAVY BLUE COLOURANT						
Component 1: C39H23Cl-CrN7O12S 2Na	118685-33-9	Textile	No intentional use	250 ppm	LC	Potential Uses in Apparel and Footwear Textile Processing: Navy Blue Colourant is regulated and should no longer be used for the dyeing of textiles.
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		
Component 2: C46 H-30CrN10O20S2 3Na	Not Allocated	Textile	No intentional use	250 ppm	LC	
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		
FLAME RETARDANTS						
Octabromodiphenyl ether (OctaBDE)	32536-52- 0	Textile	No intentional use	250 ppm	GC-MS	Potential Uses in Apparel and Footwear Textile Processing: Flame retardant chemicals are rarely used to meet flammability requirements in children's clothing and adult products. They should no longer be used in apparel and footwear. All Halogenated Flame Retardants are banned from intentional use that means including but not exclusive the ones mentioned here;
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		
Tris(2-chloroethyl)p hosphate (TCEP)	115-96-8	Textile	No intentional use	250 ppm	GC-MS	
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		
Tris(2,3,-dibromopro pyl)-phosphate (TRIS)	126-72-7	Textile	No intentional use	250 ppm	GC-MS	
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		

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FLAME RETARDANTS CONTINUED						
Bis(2,3-dibromoprop yl)phosphate (BIS)	5412-25-9	Textile	No intentional use	250 ppm	GC-MS	Potential Uses in Apparel and Footwear Textile Processing: Flame retardant chemicals are rarely used to meet flammability requirements in children's clothing and adult products. They should no longer be used in apparel and footwear. All Halogenated Flame Retardants are banned from intentional use that means including but not exclusive the ones mentioned here;
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		
Decabromodiphenyl ether (DecaBDE)	1163-19-5	Textile	No intentional use	250 ppm	GC-MS	
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		
Pentabromodipheny l ether (PentaBDE)	32534-81- 9	Textile	No intentional use	250 ppm	GC-MS	
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		
Tris(1-aziridinyl)pho sphineoxide) (TEPA)	545-55-1	Textile	No intentional use	250 ppm	GC-MS	
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		
Tetrabromobisphen ol A(TBBPA)	79-94-7	Textile	No intentional use	250 ppm	GC-MS	
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		

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FLAME RETARDANTS CONTINUED						
Tris(1,3-dichloro-isopropyl)phosphate (TDCP)	13674-87- 8	Textile	No intentional use	250 ppm	GC-MS	Potential Uses in Apparel and Footwear Textile Processing: Flame retardant chemicals are rarely used to meet flammability requirements in children's clothing and adult products. They should no longer be used in apparel and footwear. All Halogenated Flame Retardants are banned from intentional use that means including but not exclusive the ones mentioned here;
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		
Polybromobiphenyls (PBB)	59536-65- 1	Textile	No intentional use	250 ppm	GC-MS	
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		
2,2-bis(bromomethy l)-1,3-propanediol (BBMP)	3296-90-0	Textile	No intentional use	250 ppm	GC-MS	
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		
Hexabromocyclodec ane(HBCDD)	3194-55-6	Textile	No intentional use	250 ppm	GC-MS	
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		
Boric acid	10043-35-3 11113-50-1	Textile	No intentional use	250 ppm	GC-MS	
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		

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FLAME RETARDANTS CONTINUED						
Decabromobiphenyl (DecaBB)	13654-09- 6	Textile	No intentional use	250 ppm	GC-MS	Potential Uses in Apparel and Footwear Textile Processing: Flame retardant chemicals are rarely used to meet flammability requirements in children's clothing and adult products. They should no longer be used in apparel and footwear. All Halogenated Flame Retardants are banned from intentional use that means including but not exclusive the list below;
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		
Disodium tetraborate, anhydrous	1303-96-4 1330-43-4	Textile	No intentional use	250 ppm	GC-MS	
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		
Disodium octaborate	12008-41- 2	Textile	No intentional use	250 ppm	GC-MS	
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		
Dibromopropylether	21850-44- 2	Textile	No intentional use	250 ppm	GC-MS	
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		
Diboron trioxide	1303-86-2	Textile	No intentional use	250 ppm	GC-MS	
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		

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FLAME RETARDANTS CONTINUED						
Heptabromodipheny l ether (HeptaBDE)	68928-80- 3	Textile	No intentional use	250 ppm	GC-MS	Potential Uses in Apparel and Footwear Textile Processing: Flame retardant chemicals are rarely used to meet flammability requirements in children's clothing and adult products. They should no longer be used in apparel and footwear. All Halogenated Flame Retardants are banned from intentional use that means including but not exclusive the ones mentioned here;
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		
Dibromobiphenyls (DiBB)	Multiple	Textile	No intentional use	250 ppm	GC-MS	
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		
Monobromodiphenyl ethers (MonoBDEs)	Multiple	Textile	No intentional use	250 ppm	GC-MS	
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		
Monobromobiphenyl s (MonoBB)	Multiple	Textile	No intentional use	250 ppm	GC-MS	
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		
Hexabromodiphenyl ether (HexaBDE)	36483-60- 0	Textile	No intentional use	250 ppm	GC-MS	
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		

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FLAME RETARDANTS CONTINUED						
Nonabromobiphenyl s (NonaBB)	Multiple	Textile	No intentional use	250 ppm	GC-MS	Potential Uses in Apparel and Footwear Textile Processing: Flame retardant chemicals are rarely used to meet flammability requirements in children's clothing and adult products. They should no longer be used in apparel and footwear. All Halogenated Flame Retardants are banned from intentional use that means including but not exclusive the ones mentioned here;
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		
Nonabromodiphenyl ether (NonaBDE)	63936-56- 1	Textile	No intentional use	250 ppm	GC-MS	
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		
Polybromobiphenyls (Polybrominated biphenyls) (PBBs)	59536-65- 1	Textile	No intentional use	250 ppm	GC-MS	
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		
Octabromobiphenyl s (OctaBB)	Multiple	Textile	No intentional use	250 ppm	GC-MS	
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		
Tetraboron disodium heptaoxide, hydrate	12267-73- 1	Textile	No intentional use	250 ppm	GC-MS	
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		

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FLAME RETARDANTS CONTINUED						
Tetrabromodiphenyl ether (TetraBDE)	40088-47- 9	Textile	No intentional use	250 ppm	GC-MS	Potential Uses in Apparel and Footwear Textile Processing: Flame retardant chemicals are rarely used to meet flammability requirements in children's clothing and adult products. They should no longer be used in apparel and footwear. All Halogenated Flame Retardants are banned from intentional use that means including but not exclusive the ones mentioned here;
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		
Tribromodiphenylet hers (TriBDEs)	Multiple	Textile	No intentional use	250 ppm	GC-MS	
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		
Tris-(2-chloro-1-met hylethyl)phosphate (TCPP)	13674-84- 5	Textile	No intentional use	250 ppm	GC-MS	
		Leather	No intentional use	250 ppm		
		Polymers (R,F,A)*	No intentional use	250 ppm		
GLYCOLS/ GLYCOLS ETHERS						
Ethylene glycol dimethylether	110-71-4	Textile	No intentional use	50 ppm	High-performance liquid chromatography (HPLC), LC- MS	Potential Uses in Apparel and Footwear Textile Processing: In apparel and footwear, glycols have a wide range of uses including as solvents for finishing/ cleaning, printing agents, and dissolving/ diluting fats, oils, and adhesives (e.g. in degreasing or cleaning operations).
		Leather	No intentional use	50 ppm		
		Polymers (R,F,A)*	No intentional use	50 ppm		
2-methoxyethylacetate	110-49-6	Textile	No intentional use	50 ppm	High-performance liquid chromatography (HPLC), LC- MS	
		Leather	No intentional use	50 ppm		
		Polymers (R,F,A)*	No intentional use	50 ppm		

SUBSTANCE	CAS NUMBER	APPLICABILITY	GROUP A: SUPPLIER GUIDANCE	GROUP B: FORMULATION LIMIT	GENERAL TECHNIQUES FOR ANALYSING CHEMICALS	RELEVANCE OF THE RESTRICTION
GLYCOLS/ GLYCOLS ETHERS CONTINUED						
2-ethoxyethanoL	110-80-5	Textile	No intentional use	50 ppm	High-performance liquid chromatography (HPLC), LC- MS	Potential Uses in Apparel and Footwear Textile Processing: In apparel and footwear, glycols have a wide range of uses including as solvents for finishing/ cleaning, printing agents, and dissolving/ diluting fats, oils, and adhesives (e.g. in degreasing or cleaning operations).
		Leather	No intentional use	50 ppm		
		Polymers (R,F,A)*	No intentional use	50 ppm		
2-methoxyethanol	109-86-4	Textile	No intentional use	50 ppm	High-performance liquid chromatography (HPLC), LC- MS	
		Leather	No intentional use	50 ppm		
		Polymers (R,F,A)*	No intentional use	50 ppm		
Bis(2-methoxyethyl) -ether	111-96-6	Textile	No intentional use	50 ppm	High-performance liquid chromatography (HPLC), LC- MS	
		Leather	No intentional use	50 ppm		
		Polymers (R,F,A)*	No intentional use	50 ppm		
2-ethoxyethyl acetate	111-15-9	Textile	No intentional use	50 ppm	High-performance liquid chromatography (HPLC), LC- MS	
		Leather	No intentional use	50 ppm		
		Polymers (R,F,A)*	No intentional use	50 ppm		
2-methoxypropylace tate	70657-70- 4	Textile	No intentional use	50 ppm	High-performance liquid chromatography (HPLC), LC- MS	
		Leather	No intentional use	1000 ppm		
		Polymers (R,F,A)*	No Limit			

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GLYCOLS/ GLYCOLS ETHERS CONTINUED						
Triethylene glycol dimethyl ether	112-49-2	Textile	No intentional use	50 ppm	High-performance liquid chromatography (HPLC), LC- MS	Potential Uses in Apparel and Footwear Textile Processing: In apparel and footwear, glycols have a wide range of uses including as solvents for finishing/ cleaning, printing agents, and dissolving/ diluting fats, oils, and adhesives (e.g. in degreasing or cleaning operations).
		Leather	No intentional use	50 ppm		
		Polymers (R,F,A)*	No intentional use	50 ppm		
HALOGENATED SOLVENTS						
Methylene chloride	75-09-2	Textile	No intentional use	5 ppm	GC-MS	Potential Uses in Apparel and Footwear Textile Processing: In apparel and footwear, halogenated solvents are used as finishing/ cleaning and printing agents, for dissolving/ diluting fats, oils and adhesives (e.g. in degreasing or cleaning operations).
		Leather	No intentional use	5 ppm		
		Polymers (R,F,A)*	No intentional use	5 ppm		
1,2-dichloroethane	107-06-2	Textile	No intentional use	5 ppm	GC-MS	
		Leather	No intentional use	5 ppm		
		Polymers (R,F,A)*	No intentional use	5 ppm		
Trichloroethylene	79-01-6	Textile	No intentional use	40 ppm	GC-MS	
		Leather	No intentional use	40 ppm		
		Polymers (R,F,A)*	No intentional use	40 ppm		

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HALOGENATED SOLVENTS CONTINUED						
Tetrachloroethylene	127-18-4	Textile	No intentional use	5 ppm	GC-MS	Potential Uses in Apparel and Footwear Textile Processing: In apparel and footwear, halogenated solvents are used as finishing/ cleaning and printing agents, for dissolving/ diluting fats, oils and adhesives (e.g. in degreasing or cleaning operations).
		Leather	No intentional use	5 ppm		
		Polymers (R,F,A)*	No intentional use	5 ppm		
Benzylchloride	100-44-7	Textile	No intentional use	5 ppm Dyes 100 ppm	GC-MS	
		Leather	No intentional use	5 ppm Dyes 100 ppm		
		Polymers (R,F,A)*	No intentional use	5 ppm Dyes 100 ppm		
ORGANOTIN COMPOUNDS						
Dibutyltin (DBT)	Multiple	Textile	No intentional use	20 ppm	Solvent extraction, GC MS, ISO TS 16179	Potential Uses in Apparel and Footwear Textile Processing: Organotins are a class of chemicals combining tin and organics such as butyl and phenyl groups. Organotins are predominantly found in the environment as antifoulants in marine paints, but they can also be used as biocides (e.g. antibacterials), catalysts in plastic and glue production and heat stabilisers in plastics/rubber. In textiles and apparel, organotins are associated with plastics/rubber, inks, paints, metallic glitter, polyurethane products and heat transfer material.
		Leather	No intentional use	20 ppm (EXCEPTION 100 ppm for polyurethane based thickeners used at used at <20% loading)		
		Polymers (R,F,A)*	No intentional use	20 ppm		
Mono-, di- and tri- methyltin derivatives	Multiple	Textile	No intentional use	5 ppm	Solvent extraction, GC MS, ISO TS 16179	
		Leather	No intentional use	5 ppm		
		Polymers (R,F,A)*	No intentional use	5 ppm		

SUBSTANCE	CAS NUMBER	APPLICABILITY	GROUP A: SUPPLIER GUIDANCE	GROUP B: FORMULATION LIMIT	GENERAL TECHNIQUES FOR ANALYSING CHEMICALS	RELEVANCE OF THE RESTRICTION
ORGANOTIN COMPOUNDS CONTINUED						
Mono-, di- and tri- octyltin derivatives	Multiple	Textile	No intentional use	5 ppm	Solvent extraction, GC MS, ISO TS 16179	Potential Uses in Apparel and Footwear Textile Processing: Organotins are a class of chemicals combining tin and organics such as butyl and phenyl groups. Organotins are predominantly found in the environment as antifoulants in marine paints, but they can also be used as biocides (e.g. antibacterials), catalysts in plastic and glue production and heat stabilisers in plastics/rubber. In textiles and apparel, organotins are associated with plastics/rubber, inks, paints, metallic glitter, polyurethane products and heat transfer material.
		Leather	No intentional use	5 ppm		
		Polymers (R,F,A)*	No intentional use	5 ppm		
Mono-, di- and tri- phenyltin derivatives	Multiple	Textile	No intentional use	5 ppm	Solvent extraction, GC MS, ISO TS 16179	
		Leather	No intentional use	5 ppm		
		Polymers (R,F,A)*	No intentional use	5 ppm		
Mono- and tri- butyltin derivatives	Multiple	Textile	No intentional use	5 ppm	Solvent extraction, GC MS, ISO TS 16179	
		Leather	No intentional use	5 ppm		
		Polymers (R,F,A)*	No intentional use	5 ppm		
Dipropyltin compounds (DPT)	Multiple	Textile	No intentional use	5 ppm	Solvent extraction, GC MS, ISO TS 16179	
		Leather	No intentional use	5 ppm		
		Polymers (R,F,A)*	No intentional use	5 ppm		
Tetraethyltin Compounds (TeET)	Multiple	Textile	No intentional use	1 ppm	Solvent extraction, GC MS, ISO TS 16179	
		Leather	No intentional use	1 ppm		
		Polymers (R,F,A)*	No intentional use	1 ppm		

SUBSTANCE	CAS NUMBER	APPLICABILITY	GROUP A: SUPPLIER GUIDANCE	GROUP B: FORMULATION LIMIT	GENERAL TECHNIQUES FOR ANALYSING CHEMICALS	RELEVANCE OF THE RESTRICTION
ORGANOTIN COMPOUNDS CONTINUED						
Tripropyltin Compounds (TPT)	Multiple	Textile	No intentional use	1 ppm	Solvent extraction, GC MS, ISO TS 16179	Potential Uses in Apparel and Footwear Textile Processing: Organotins are a class of chemicals combining tin and organics such as butyl and phenyl groups. Organotins are predominantly found in the environment as antifoulants in marine paints, but they can also be used as biocides (e.g. antibacterials), catalysts in plastic and glue production and heat stabilisers in plastics/rubber. In textiles and apparel, organotins are associated with plastics/rubber, inks, paints, metallic glitter, polyurethane products and heat transfer material.
		Leather	No intentional use	1 ppm		
		Polymers (R,F,A)*	No intentional use	1 ppm		
Tetrabutyltin compounds (TeBT)	Multiple	Textile	No intentional use	1 ppm	Solvent extraction, GC MS, ISO TS 16179	
		Leather	No intentional use	1 ppm		
		Polymers (R,F,A)*	No intentional use	1 ppm		
Tetraoctyltin compounds (TeOT)	Multiple	Textile	No intentional use	1 ppm	Solvent extraction, GC MS, ISO TS 16179	
		Leather	No intentional use	1 ppm		
		Polymers (R,F,A)*	No intentional use	1 ppm		
Tricyclohexyltin (TCyHT)	Multiple	Textile	No intentional use	1 ppm	Solvent extraction, GC MS, ISO TS 16179	
		Leather	No intentional use	1 ppm		
		Polymers (R,F,A)*	No intentional use	1 ppm		
OTHER/MISCELLANEOUS CHEMICALS (These are other chemicals/substances/process with a usage ban)						
Borate, zinc salt	12767-90-7	Textile	No intentional use	1000 ppm	Acid digestion, ICP	Borate, zinc salt can be used as a flame retardant but also in paints, pigments, and adhesives.
		Leather	No intentional use	1000 ppm		
		Polymers (R,F,A)*	No intentional use	1000 ppm		

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OTHER/MISCELLANEOUS CHEMICALS CONTINUED (These are other chemicals/substances/process with a usage ban)						
Bisphenol A	80-05-7	Textile	No intentional use	100 ppm	Solvent extraction, LC MS/MS	Bisphenol A (BPA) is a precursor chemical used along with other chemicals to create some plastics and resins. It is commonly used to harden plastics.
		Leather	No intentional use	100 ppm		
		Polymers (R,F,A)*	No Limit			
Thiourea	62-56-6	Textile	No intentional use	1000 ppm	Solvent extraction, LC MS/MS	Thiourea is used in many formulations to increase the solubility.
		Leather	No intentional use	1000 ppm		
		Polymers (R,F,A)*	No intentional use	1000 ppm		
Quinoline	91-22-5	Textile	No intentional use	1000 ppm	DIN 54231	Contaminant of dispersing agents in disperse dyes.
		Leather	No intentional use	1000 ppm		
		Polymers (R,F,A)*	No intentional use	1000 ppm		
Silica (particles of respirable size)	14464-46-1	Textile	No intentional use	No use of Sand Blasting	Process due diligence, no test method available	Respirable particles of silica are often generate during the process of sand blasting.
		Leather	No intentional use	No use of Sand Blasting		
		Polymers (R,F,A)*	No intentional use	No use of Sand Blasting		
AEEA [2-(2-aminoet Textile hylamino)ethanol	111-41-1	Textile	No intentional use	100 ppm	Solvent extraction, LC MS/MS	AEEA is used a.o. in chelating agents, surfactants and fabric softeners.
		Leather	No intentional use	100 ppm		
		Polymers (R,F,A)*	No intentional use	100 ppm		

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PERFLUORINATED AND POLYFLUORINATED CHEMICALS (PFCs)						
Perfluorooctane sulfonate (PFOS) and related substances	Multiple	Textile	No intentional use	Sum = 2 ppm	LC-MS	Durable water, oil and stain repellent finishes based on long-chain PFC's are banned from intentional use. There are two methods of manufacture of PFCs referred to as electrofluorination and telomerisation. PFC's made by the electrofluorination method have by-products associated with them called perfluoroalkyl sulphonates with the most common being the C8 species Perfluorooctane sulphonate (PFOS). The deliberate use of any PFCs made by electrofluorination with a chain length of C6 or above is not permitted. The detection of any PFOS analogue as where the chain length is 6 units or longer will trigger a failure [i.e. PFHS and above]. These types of PFCs are typically used in home textiles. PFC's made by the telomerisation method have by-products associated with them called perfluorocarboxylic acids with the most common being the C8 species perfluorooctanoic acid (PFOA). The deliberate use of any PFCs made by telomerisation with a chain length of C8 or above is restricted. ZeemaN plans to further restrict the use of PFCs in future revisions and details can be found in the candidate list is not permitted. The detection of any PFOA analogue as where the chain length is 8 units or longer will trigger a failure (i.e. PFOA and above). These types of PFCs are typically used in clothing and footwear. Potential Uses in Apparel and Footwear Textile Processing: PFOA and PFOS may be present as unintended by-products in long-chain commercial water, oil and stain repellent agents. PFOA also may be in used in the production for polymers like polytetrafluoroethylene (PTFE).
		Leather	No intentional use	Sum = 2 ppm		
		Polymers (R,F,A)*	No intentional use	Sum = 2 ppm		
Perfluorooctanoic acid (PFOA) and related substances	Multiple	Textile	No intentional use	PFOA = 25 ppb PFOA-related substances = 1000 ppb	LC-MS	
		Leather	No intentional use	PFOA = 25 ppb PFOA-related substances = 1000 ppb		
		Polymers (R,F,A)*	No intentional use	PFOA = 25 ppb PFOA-related substances = 1000 ppb		

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SUBSTANCE	CAS NUMBER	APPLICABILITY	GROUP A: SUPPLIER GUIDANCE	GROUP B: FORMULATION LIMIT	GENERAL TECHNIQUES FOR ANALYSING CHEMICALS	RELEVANCE OF THE RESTRICTION
PHTHALATES - INCLUDING ALL OTHER ESTERS OF ORTO-PHTHALATIC ACID						
Di-n-octyl phthalate (DNOP)[5]	117-84-0	Textile	No intentional use	Sum of substances[5] = 250 ppm	GC-MS	Potential Uses in Apparel and Footwear Textile Processing: Esters of ortho-phthalic acid (phthalates) are a class of organic compounds commonly added to plastics to increase flexibility. They sometimes are used to facilitate moulding of plastic by decreasing its melting temperature. Phthalates can be found in: - Flexible plastic components (e.g. PVC) - Print pastes - Adhesives - Plastic buttons - Plastic sleevings - Polymeric coatings
		Leather	No intentional use	Sum of substances[5] = 250 ppm		
		Polymers (R,F,A)*	No intentional use	Sum of substances[5] = 250 ppm		
Bis(2-methoxyethyl) phthalate (DMEP)[5]	117-82-8	Textile	No intentional use	Sum of substances[5] = 250 ppm	GC-MS	
		Leather	No intentional use	Sum of substances[5] = 250 ppm		
		Polymers (R,F,A)*	No intentional use	Sum of substances[5] = 250 ppm		
Di-iso-decyl phthalate (DIDP)[5]	26761-40- 0	Textile	No intentional use	Sum of substances[5] = 250 ppm	GC-MS	
		Leather	No intentional use	Sum of substances[5] = 250 ppm		
		Polymers (R,F,A)*	No intentional use	Sum of substances[5] = 250 ppm		
Di(ethylhexyl) phthalate (DEHP)[5]	117-81-7	Textile	No intentional use	Sum of substances[5] = 250 ppm	GC-MS	
		Leather	No intentional use	Sum of substances[5] = 250 ppm		
		Polymers (R,F,A)*	No intentional use	Sum of substances[5] = 250 ppm		
Di-isononyl phthalate (DINP)[5]	28553-12- 0	Textile	No intentional use	Sum of substances[5] = 250 ppm	GC-MS	
		Leather	No intentional use	Sum of substances[5] = 250 ppm		
		Polymers (R,F,A)*	No intentional use	Sum of substances[5] = 250 ppm		

SUBSTANCE	CAS NUMBER	APPLICABILITY	GROUP A: SUPPLIER GUIDANCE	GROUP B: FORMULATION LIMIT	GENERAL TECHNIQUES FOR ANALYSING CHEMICALS	RELEVANCE OF THE RESTRICTION
PHTHALATES - INCLUDING ALL OTHER ESTERS OF ORTO-PHTHALATIC ACID CONTINUED						
Di-n-hexyl phthalate (DnHP)[5]	84-75-3	Textile	No intentional use	Sum of substances[5] = 250 ppm	GC-MS	Potential Uses in Apparel and Footwear Textile Processing: Esters of ortho-phthalic acid (phthalates) are a class of organic compounds commonly added to plastics to increase flexibility. They sometimes are used to facilitate moulding of plastic by decreasing its melting temperature. Phthalates can be found in: - Flexible plastic components (e.g. PVC) - Print pastes - Adhesives - Plastic buttons - Plastic sleevings - Polymeric coatings
		Leather	No intentional use	Sum of substances[5] = 250 ppm		
		Polymers (R,F,A)*	No intentional use	Sum of substances[5] = 250 ppm		
Butyl benzyl phthalate (BBP)[5]	85-68-7	Textile	No intentional use	Sum of substances[5] = 250 ppm	GC-MS	
		Leather	No intentional use	Sum of substances[5] = 250 ppm		
		Polymers (R,F,A)*	No intentional use	Sum of substances[5] = 250 ppm		
Dibutyl phthalate (DBP)[5]	84-74-2	Textile	No intentional use	Sum of substances[5] = 250 ppm	GC-MS	
		Leather	No intentional use	Sum of substances[5] = 250 ppm		
		Polymers (R,F,A)*	No intentional use	Sum of substances[5] = 250 ppm		
Dinonyl phthalate (DNP)[5]	84-76-4	Textile	No intentional use	Sum of substances[5] = 250 ppm	GC-MS	
		Leather	No intentional use	Sum of substances[5] = 250 ppm		
		Polymers (R,F,A)*	No intentional use	Sum of substances[5] = 250 ppm		
Diethyl phthalate (DEP)[5]	84-66-2	Textile	No intentional use	Sum of substances[5] = 250 ppm	GC-MS	
		Leather	No intentional use	Sum of substances[5] = 250 ppm		
		Polymers (R,F,A)*	No intentional use	Sum of substances[5] = 250 ppm		

SUBSTANCE	CAS NUMBER	APPLICABILITY	GROUP A: SUPPLIER GUIDANCE	GROUP B: FORMULATION LIMIT	GENERAL TECHNIQUES FOR ANALYSING CHEMICALS	RELEVANCE OF THE RESTRICTION
PHTHALATES - INCLUDING ALL OTHER ESTERS OF ORTO-PHTHALATIC ACID CONTINUED						
Di-n-propyl phthalate (DPRP)[5]	131-16-8	Textile	No intentional use	Sum of substances[5] = 250 ppm	GC-MS	Potential Uses in Apparel and Footwear Textile Processing: Esters of ortho-phthalic acid (phthalates) are a class of organic compounds commonly added to plastics to increase flexibility. They sometimes are used to facilitate moulding of plastic by decreasing its melting temperature. Phthalates can be found in: - Flexible plastic components (e.g. PVC) - Print pastes - Adhesives - Plastic buttons - Plastic sleevings - Polymeric coatings
		Leather	No intentional use	Sum of substances[5] = 250 ppm		
		Polymers (R,F,A)*	No intentional use	Sum of substances[5] = 250 ppm		
Di-cyclohexyl phthalate (DCHP)[5]	84-61-7	Textile	No intentional use	Sum of substances[5] = 250 ppm	GC-MS	
		Leather	No intentional use	Sum of substances[5] = 250 ppm		
		Polymers (R,F,A)*	No intentional use	Sum of substances[5] = 250 ppm		
Di-isobutyl phthalate (DIBP)[5]	84-69-5	Textile	No intentional use	Sum of substances[5] = 250 ppm	GC-MS	
		Leather	No intentional use	Sum of substances[5] = 250 ppm		
		Polymers (R,F,A)*	No intentional use	Sum of substances[5] = 250 ppm		
Di-iso-octyl phthalate(DIOP)[5]	27554-26-3	Textile	No intentional use	Sum of substances[5] = 250 ppm	GC-MS	
		Leather	No intentional use	Sum of substances[5] = 250 ppm		
		Polymers (R,F,A)*	No intentional use	Sum of substances[5] = 250 ppm		
1,2-benzenedicarboxylic acid, di-C7-11 branched and. linearalkyl esters (DHNUP)[5]	68515-42-4 68515-50-4	Textile	No intentional use	Sum of substances[5] = 250 ppm	GC-MS	
		Leather	No intentional use	Sum of substances[5] = 250 ppm		
		Polymers (R,F,A)*	No intentional use	Sum of substances[5] = 250 ppm		

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PHTHALATES - INCLUDING ALL OTHER ESTERS OF ORTO-PHTHALATIC ACID CONTINUED						
1,2-benzenedicarboxylic acid, di-C6-8 branched and linearalkyl esters , C7-rich (DIHP)[5]	71888-89-6 84777-06-0	Textile	No intentional use	Sum of substances[5] = 250 ppm	GC-MS	Potential Uses in Apparel and Footwear Textile Processing: Esters of ortho-phthalic acid (phthalates) are a class of organic compounds commonly added to plastics to increase flexibility. They sometimes are used to facilitate moulding of plastic by decreasing its melting temperature. Phthalates can be found in: - Flexible plastic components (e.g. PVC) - Print pastes - Adhesives - Plastic buttons - Plastic sleevings - Polymeric coatings
		Leather	No intentional use	Sum of substances[5] = 250 ppm		
		Polymers (R,F,A)*	No intentional use	Sum of substances[5] = 250 ppm		
Diisopentylphthalates[5]	605-50-5	Textile	No intentional use	Sum of substances[5] = 250 ppm	GC-MS	
		Leather	No intentional use	Sum of substances[5] = 250 ppm		
		Polymers (R,F,A)*	No intentional use	Sum of substances[5] = 250 ppm		
Di-n-pentylphthalates[5]	131-18-0	Textile	No intentional use	Sum of substances[5] = 250 ppm	GC-MS	
		Leather	No intentional use	Sum of substances[5] = 250 ppm		
		Polymers (R,F,A)*	No intentional use	Sum of substances[5] = 250 ppm		

SUBSTANCE	CAS NUMBER	APPLICABILITY	GROUP A: SUPPLIER GUIDANCE	GROUP B: FORMULATION LIMIT	GENERAL TECHNIQUES FOR ANALYSING CHEMICALS	RELEVANCE OF THE RESTRICTION
POLYCYCLIC AROMATIC HYDROCARBONS (PAHs)						
Benzo[a]pyrene	50-32-8	Textile	No intentional use	20 ppm	GC-MS	Potential Uses in Apparel and Footwear Textile Processing: Oil containing PAHs are added to rubber and plastics as a softener or extender and may be found in rubber, plastics, lacquers, and coatings. Within the footwear producing industry, PAHs are often found in the outsoles of footwear and in printing pastes for screen prints. PAHs can be present as impurities in carbon black dyestuffs.
		Leather	No intentional use	20 ppm		
		Polymers (R,F,A)*	No intentional use	20 ppm		
Pyrene[3,4]	129-00-0	Textile	No intentional use	Sum of substances[3] = 200 ppm	GC-MS	
		Leather	No intentional use	Sum of substances[4] = 200 ppm		
		Polymers (R,F,A)*	No Limit			
Benzo(ghi)perylene[3,4]	191-24-2	Textile	No intentional use	Sum of substances[3] = 200 ppm	GC-MS	
		Leather	No intentional use	Sum of substances[4] = 200 ppm		
		Polymers (R,F,A)*	No Limit			
Benzo[j]fluoranthene[3,4]	205-82-3	Textile	No intentional use	Sum of substances[3] = 200 ppm	GC-MS	
		Leather	No intentional use	Sum of substances[4] = 200 ppm		
		Polymers (R,F,A)*	No Limit			
Anthracene[3,4]	120-12-7	Textile	No intentional use	Sum of substances[3] = 200 ppm	GC-MS	
		Leather	No intentional use	Sum of substances[4] = 200 ppm		
		Polymers (R,F,A)*	No Limit			

SUBSTANCE	CAS NUMBER	APPLICABILITY	GROUP A: SUPPLIER GUIDANCE	GROUP B: FORMULATION LIMIT	GENERAL TECHNIQUES FOR ANALYSING CHEMICALS	RELEVANCE OF THE RESTRICTION
POLYCYCLIC AROMATIC HYDROCARBONS (PAHs) CONTINUED						
Indeno[1,2,3-cd]pyrene[3,4]	193-39-5	Textile	No intentional use	Sum of substances[3] = 200 ppm	GC-MS	Potential Uses in Apparel and Footwear Textile Processing: Oil containing PAHs are added to rubber and plastics as a softener or extender and may be found in rubber, plastics, lacquers, and coatings. Within the footwear producing industry, PAHs are often found in the outsoles of footwear and in printing pastes for screen prints. PAHs can be present as impurities in carbon black dyestuffs.
		Leather	No intentional use	Sum of substances[4] = 200 ppm		
		Polymers (R,F,A)*	No Limit			
Benzo[e]pyrene[3,4]	192-97-2	Textile	No intentional use	Sum of substances[3] = 200 ppm	GC-MS	
		Leather	No intentional use	Sum of substances[4] = 200 ppm		
		Polymers (R,F,A)*	No Limit			
Benzo[b]fluoranthene[3,4]	205-99-2	Textile	No intentional use	Sum of substances[3] = 200 ppm	GC-MS	
		Leather	No intentional use	Sum of substances[4] = 200 ppm		
		Polymers (R,F,A)*	No Limit			
Benzo[k]fluoranthene[3,4]	207-08-9	Textile	No intentional use	Sum of substances[3] = 200 ppm	GC-MS	
		Leather	No intentional use	Sum of substances[4] = 200 ppm		
		Polymers (R,F,A)*	No Limit			
Fluoranthene[3,4]	206-44-0	Textile	No intentional use	Sum of substances[3] = 200 ppm	GC-MS	
		Leather	No intentional use	Sum of substances[4] = 200 ppm		
		Polymers (R,F,A)*	No Limit			

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POLYCYCLIC AROMATIC HYDROCARBONS (PAHs) CONTINUED						
Acenaphthylene[3,4]	208-96-8	Textile	No intentional use	Sum of substances[3] = 200 ppm	GC-MS	Potential Uses in Apparel and Footwear Textile Processing: Oil containing PAHs are added to rubber and plastics as a softener or extender and may be found in rubber, plastics, lacquers, and coatings. Within the footwear producing industry, PAHs are often found in the outsoles of footwear and in printing pastes for screen prints. PAHs can be present as impurities in carbon black dyestuffs.
		Leather	No intentional use	Sum of substances[4] = 200 ppm		
		Polymers (R,F,A)*	No Limit			
Dibenz[a,h]anthracene[3,4]	53-70-3	Textile	No intentional use	Sum of substances[3] = 200 ppm	GC-MS	
		Leather	No intentional use	Sum of substances[4] = 200 ppm		
		Polymers (R,F,A)*	No Limit			
Chrysene[3,4]	218-01-9	Textile	No intentional use	Sum of substances[3] = 200 ppm	GC-MS	
		Leather	No intentional use	Sum of substances[4] = 200 ppm		
		Polymers (R,F,A)*	No Limit			
Phenanthrene[3,4]	85-01-8	Textile	No intentional use	Sum of substances[3] = 200 ppm	GC-MS	
		Leather	No intentional use	Sum of substances[4] = 200 ppm		
		Polymers (R,F,A)*	No Limit			
Acenaphthene[3,4]	83-32-9	Textile	No intentional use	Sum of substances[3] = 200 ppm	GC-MS	
		Leather	No intentional use	Sum of substances[4] = 200 ppm		
		Polymers (R,F,A)*	No Limit			

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POLYCYCLIC AROMATIC HYDROCARBONS (PAHs) CONTINUED						
Fluorene[3,4]	86-73-7	Textile	No intentional use	Sum of substances[3] = 200 ppm	GC-MS	Potential Uses in Apparel and Footwear Textile Processing: Oil containing PAHs are added to rubber and plastics as a softener or extender and may be found in rubber, plastics, lacquers, and coatings. Within the footwear producing industry, PAHs are often found in the outsoles of footwear and in printing pastes for screen prints. PAHs can be present as impurities in carbon black dyestuffs.
		Leather	No intentional use	Sum of substances[4] = 200 ppm		
		Polymers (R,F,A)*	No Limit			
Naphthalene[3]	91-20-3	Textile	No intentional use	Sum of substances[3] = 200 ppm	GC-MS	
		Leather	No intentional use	300 ppm		
		Polymers (R,F,A)*	No Limit			
Benzo(a)anthracene[3,4]	56-55-3	Textile	No intentional use	Sum of substances[3] = 200 ppm	GC-MS	
		Leather	No intentional use	Sum of substances[4] = 200 ppm		
		Polymers (R,F,A)*	No Limit			

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TOTAL HEAVY METALS						
Arsenic (As)	7440-38-2	Textile	No intentional use	50 ppm	Inductively coupled plasma-optical emission spectrometry (ICP-OES), atomic absorption spectroscopy (AAS)	Potential Uses in Apparel and Footwear Textile Processing: Listed metals are banned from intentional use in textile manufacturing/ finishing unless stated differently. Additionally, residual traces of zinc, iron, and manganese in colourants are expected to comply with the Ecological and Toxicological Association of Dyes and Organic Pigments Manufacturers (ETAD) concentration limits (http://www.etad.com/). The total heavy metal limits do not apply to products containing a listed metal as an inherent compositional part (e.g. metal-complex colorants, the double salts of certain cationic colourants or extenders like barium sulfate). In these cases, the extractable content of the corresponding metal has to be considered. Alternatively, the total content will be communicated to the customers, who will determine whether their final product will comply with the corresponding RSL(s) requirements. Although typically associated with leather tanning, chromium VI also may be used in the dyeing of wool (after the chroming process).
		Leather	No intentional use	50 ppm		
		Polymers (R,F,A)*	No intentional use	50 ppm		
Cadmium (Cd)	7440-43-9	Textile	No intentional use	20 ppm (50 ppm for pigments)	Inductively coupled plasma-optical emission spectrometry (ICP-OES), atomic absorption spectroscopy (AAS)	
		Leather	No intentional use	20 ppm (50 ppm for pigments)		
		Polymers (R,F,A)*	No intentional use	20 ppm (50 ppm for pigments)		
Mercury (Hg	7439-97-6	Textile	No intentional use	4 ppm (25 ppm pigments)	Inductively coupled plasma-optical emission spectrometry (ICP-OES), atomic absorption spectroscopy (AAS)	
		Leather	No intentional use	4 ppm (25 ppm pigments)		
		Polymers (R,F,A)*	No intentional use	4 ppm (25 ppm pigments)		
Lead (Pb)	7439-92-1	Textile	No intentional use	100 ppm	Inductively coupled plasma-optical emission spectrometry (ICP-OES), atomic absorption spectroscopy (AAS)	
		Leather	No intentional use	100 ppm		
		Polymers (R,F,A)*	No intentional use	100 ppm		
Chromium (VI)	18540-29- 9	Textile	No intentional use	10 ppm	Inductively coupled plasma-optical emission spectrometry (ICP-OES), atomic absorption spectroscopy (AAS)	
		Leather	No intentional use	10 ppm		
		Polymers (R,F,A)*	No intentional use	10 ppm		

SUBSTANCE	CAS NUMBER	APPLICABILITY	GROUP A: SUPPLIER GUIDANCE	GROUP B: FORMULATION LIMIT	GENERAL TECHNIQUES FOR ANALYSING CHEMICALS	RELEVANCE OF THE RESTRICTION
TOTAL HEAVY METALS CONTINUED						
Antimony	7440-36-0	Textile	No intentional use	Dyes 50 Pigments 250 ppm	Acid digestion, ICP	Potential Uses in Apparel and Footwear Textile Processing: Listed metals are banned from intentional use in textile manufacturing/ finishing unless stated differently. Additionally, residual traces of zinc, iron, and manganese in colourants are expected to comply with the Ecological and Toxicological Association of Dyes and Organic Pigments Manufacturers (ETAD) concentration limits (http://www.etad.com/). The total heavy metal limits do not apply to products containing a listed metal as an inherent compositional part (e.g. metal-complex colorants, the double salts of certain cationic colourants or extenders like barium sulfate). In these cases, the extractable content of the corresponding metal has to be considered. Alternatively, the total content will be communicated to the customers, who will determine whether their final product will comply with the corresponding RSL(s) requirements.
		Leather	No intentional use	Dyes 50 Pigments 250 ppm		
		Polymers (R,F,A)*	No intentional use	Dyes 50 Pigments 250 ppm		
Chromium	7440-47-3	Textile	No intentional use	Dyes and Pigments 100 ppm	Acid digestion, ICP	
		Leather	No intentional use	Dyes and Pigments 100 ppm		
		Polymers (R,F,A)*	No intentional use	Dyes and Pigments 100 ppm		
Barium	7440-39-3	Textile	No intentional use	Dyes and Pigments 100 ppm	Acid digestion, ICP	
		Leather	No intentional use	Dyes and Pigments 100 ppm		
		Polymers (R,F,A)*	No intentional use	Dyes and Pigments 100 ppm		
Selenium	7782-49-2	Textile	No intentional use	Dyes 20 Pigments 100 ppm	Acid digestion, ICP	
		Leather	No intentional use	Dyes 20 Pigments 100 ppm		
		Polymers (R,F,A)*	No intentional use	Dyes 20 Pigments 100 ppm		
Tin	7440-31-5	Textile	No intentional use	Dyes 250 ppm	Acid digestion, ICP	
		Leather	No intentional use	Dyes 250 ppm		
		Polymers (R,F,A)*	No intentional use	Dyes 250 ppm		

SUBSTANCE	CAS NUMBER	APPLICABILITY	GROUP A: SUPPLIER GUIDANCE	GROUP B: FORMULATION LIMIT	GENERAL TECHNIQUES FOR ANALYSING CHEMICALS	RELEVANCE OF THE RESTRICTION
TOTAL HEAVY METALS CONTINUED						
Nickel	7440-02-0	Textile	No intentional use	Dyes 250 ppm	Acid digestion, ICP	Potential Uses in Apparel and Footwear Textile Processing: Listed metals are banned from intentional use in textile manufacturing/ finishing unless stated differently. Additionally, residual traces of zinc, iron, and manganese in colourants are expected to comply with the Ecological and Toxicological Association of Dyes and Organic Pigments Manufacturers (ETAD) concentration limits (http://www.etad.com/). The total heavy metal limits do not apply to products containing a listed metal as an inherent compositional part (e.g. metal-complex colorants, the double salts of certain cationic colourants or extenders like barium sulfate). In these cases, the extractable content of the corresponding metal has to be considered. Alternatively, the total content will be communicated to the customers, who will determine whether their final product will comply with the corresponding RSL(s) requirements.
		Leather	No intentional use	Dyes 250 ppm		
		Polymers (R,F,A)*	No intentional use	Dyes 250 ppm		
Copper	7440-50-8	Textile	No intentional use	Dyes 250 ppm	Acid digestion, ICP	
		Leather	No intentional use	Dyes 250 ppm		
		Polymers (R,F,A)*	No intentional use	Dyes 250 ppm		
Cobalt	7440-48-4	Textile	No intentional use	Dyes 500 ppm	Acid digestion, ICP	
		Leather	No intentional use	Dyes 500 ppm		
		Polymers (R,F,A)*	No intentional use	Dyes 500 ppm		
Silver	7440-22-4	Textile	No intentional use	Dyes 100 ppm	Acid digestion, ICP	
		Leather	No intentional use	Dyes 100 ppm		
		Polymers (R,F,A)*	No intentional use	Dyes 100 ppm		

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SUBSTANCE	CAS NUMBER	APPLICABILITY	GROUP A: SUPPLIER GUIDANCE	GROUP B: FORMULATION LIMIT	GENERAL TECHNIQUES FOR ANALYSING CHEMICALS	RELEVANCE OF THE RESTRICTION
UV ABSORBERS						
2-(2H-benzotriazol- 2-yl)-4-(tert- butyl)-6-(sec- butyl) phenol (UV-350)	36437-37- 3	Textile	No intentional use	1000 ppm	Solvent extraction, LC MS/MS, GC MS	Potential Uses in Apparel and Footwear Textile Processing: These are frequently used in formulations to be stable to the influence of light and UV
		Leather	No intentional use	1000 ppm		
		Polymers (R,F,A)*	No intentional use	1000 ppm		
2-benzotriazol-2-yl- 4,6-di-tert-butylphenol (UV-320)	3846-71-7	Textile	No intentional use	1000 ppm	Solvent extraction, LC MS/MS, GC MS	
		Leather	No intentional use	1000 ppm		
		Polymers (R,F,A)*	No intentional use	1000 ppm		
2,4-Di-tert-butyl-6-(5 -chlorobenzotriazole -2-yl) phenol (UV-327)	3864-99-1	Textile	No intentional use	1000 ppm	Solvent extraction, LC MS/MS, GC MS	
		Leather	No intentional use	1000 ppm		
		Polymers (R,F,A)*	No intentional use	1000 ppm		
2-(2H-benzotriazol- 2-yl)-4,6-ditertpentyl phenol (UV-328)	25973-55- 1	Textile	No intentional use	1000 ppm	Solvent extraction, LC MS/MS, GC MS	
		Leather	No intentional use	1000 ppm		
		Polymers (R,F,A)*	No intentional use	1000 ppm		

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SUBSTANCE	CAS NUMBER	APPLICABILITY	GROUP A: SUPPLIER GUIDANCE	GROUP B: FORMULATION LIMIT	GENERAL TECHNIQUES FOR ANALYSING CHEMICALS	RELEVANCE OF THE RESTRICTION
VOLATILE ORGANIC COMPOUNDS (VOC)						
Benzene	71-43-2	Textile	No intentional use	50 ppm	GC-MS	Potential Uses in Apparel and Footwear Textile Processing: These Volatile Organic Compounds (VOC) should not be used in textile auxiliary chemical preparations. They are associated with solvent-based processes like solvent-based polyurethane coatings and glues/ adhesives. They should not be used for any kind of facility cleaning or spot cleaning.
		Leather	No intentional use	50 ppm		
		Polymers (R,F,A)*	No intentional use	50 ppm		
o-cresol	95-48-7	Textile	No intentional use	500 ppm	GC-MS	
		Leather	No intentional use	500 ppm		
		Polymers (R,F,A)*	No intentional use	500 ppm		
p-cresol	106-44-5	Textile	No intentional use	500 ppm	GC-MS	
		Leather	No intentional use	500 ppm		
		Polymers (R,F,A)*	No intentional use	500 ppm		
Xylene	1330-20-7	Textile	No intentional use	500 ppm	GC-MS	
		Leather	No intentional use	500 ppm		
		Polymers (R,F,A)*	No intentional use	500 ppm		
m-cresol	108-39-4	Textile	No intentional use	500 ppm	GC-MS	
		Leather	No intentional use	500 ppm		
		Polymers (R,F,A)*	No intentional use	500 ppm		

FOOTNOTES:
(R,F,A)* refers to Rubber, Foams and Adhesives
Sum of substances [1,2,3,4,5] means the limit refers to the sum of all the marked substances within the same number

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SUBSTANCE	CAS NUMBER	INTENT AND POTENTIAL USE
(FREE) ANILINE		
(Free) Aniline	62-53-3	High levels of free aniline can be encountered in some indigo dye formulations. In the next version of the Zeeman MRSL it is intended to place restrictions on the maximum permitted levels of free aniline in indigo dye formulations. Studies on levels of free aniline in currently available liquid and powder formulations and determination of safe levels of aniline for workers are required to determine appropriate levels. Used for indigo and to manufacture AZO Dyes (especially the leather dyes).
ADCA		
Diazene-1,2-dicarbo xamide [C,C`-azodi(formamide), ADCA]	123-77-3	It is intended to restrict ADCA In the next version of the Zeeman MRSL. Additionally, a wider appraisal of foaming/blowing agents and vulcanisation accelerators will be conducted and further chemicals may be included at that time. ADCA is used as a foaming/ blowing agent for rubber applications.
CYCLIC SILOXANES		
D5	541-02-6	These silicones are known contaminants in silicone formulation, the industry is currently reviewing the impact on silicone polymers. Zeeman will assess restrictions for the next update.
D6	540-97-6	
D4	556-67-2	

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SUBSTANCE	CAS NUMBER	INTENT AND POTENTIAL USE
DIMETHYLFUMARATE		
Dimethylfumarate (DMFu)	624-49-7	DMFu must not be deliberately used in any formulations. It is intended to publish details of a universally agreed, robust test method and maximum allowable limit in version 3 of the MRSL. It should be noted that DMFu remains illegal in articles placed on the EU market above 0.1 ppm so testing for DMfu in formulations using methods currently recommended by laboratories is strongly advised, with any detections resulting in an investigation into deliberate use at all stages in the supply chain.
DYES - CARCINOGENIC OR EQUIVALENT CONCERN		
C.I. Basic Green 4 leuco base	129-73-7	Research needs to be conducted on alternative green dyes or green recipe formulations to establish if this can be restricted without affecting product/ colour choices. Application using techniques such as gel-dyeing are unlikely to be restricted. Used as green dye
FLAME RETARDANTS		
Trixylyl phosphate (TXP)	25155-23-1	Certain phosphate flame retardants will be assessed for restrictions for the next Zeeman MRSL Update. Flame retardant chemicals are rarely used to meet flammability requirements in children's clothing and adult products.
Tri-o-cresyl phosphate	78-30-8	
Trimethyl phosphate	512-56-1	
FORMALDEHYDE		
Formaldehyde	50-00-0	The deliberate use of formaldehyde or inclusion of formaldehyde in formulations is not permitted. In Version 3 of the Zeeman MRSL it is intended to place restrictions onthe maximum permitted levels of formaldehyde in formulations. The use, presence and generation of formaldehyde is a complex subject and studies are required to determine appropriate levels. Formaldehyde has many uses in printing, interlinings, stiffeners, etc.

MRSL Candidate List 2.0 Chapter 2 (version February 2022)

SUBSTANCE	CAS NUMBER	INTENT AND POTENTIAL USE

PERFLUORINATED AND POLYFLUORINATED CHEMICALS (PFCs)

C8 and some C6 PFCs are currently restricted in Version 2.0 of the Zeeman MRSL. In Version 3 of the Zeeman MRSL it is intended to ban the deliberate use of all functional finishes based on PFC's except for anticipated derogations under EU law, such as protective articles where the highest levels of repellency are required to safeguard the user.

In signaling this forthcoming restriction it is expected that wet processors prepare and plan to take no new deliveries of PFC-containing formulations after the publication of Zeeman MRSL Version 3.

Used as water repellent, stain repellent and in certain cases to improve the colour fastness properties.

The below list includes PFC's that are already restricted in version 2 and those intended to be restricted in version 3

Substance	Cas. Number	Substance	Cas. Number	Substance	Cas. Number
Perluorohexane sulfonic acid / Perfluorohexane sulfonate (PFHxS)	355-46-4 432-50-7	Fluorotelomer alcohols (FTOHs) F (CF2) nCH2CH2OH	Several	Perfluorooctanoic acid (PFOA)	335-67-1
Perfluoroalkylsulfonates F (CF2) nSO3	Several	Fluorotelomer Olefins (FTOs)	Several	Perfluoroheptanoic acid (PFHpA)	375-85-9
Perfluorooctane sulfonic acid / Perfluorooctane sulfonate (PFOS)	1763-23-1	6:2 FTOH, Perfluorohexylethanol	647-42-7	Heptacosafluorotetradecanoic acid	376-06-7
PFSA Chemicals	Several	Perfluorohexylethene	25291-17-2	Perfluorohexanoic acid (PFHxA)	307-24-4
Perfluoroalkylsulfonamido ethanols F (CF2)nSO2N ® CH2CH2OH2 -CH3, - CH2CH3]	Several	Fluorotelomer (Meth) Acrylates	Several	Perfluorononanoic acid (PFNA)	375-95-1
Perfluoroalkylsulfonamides F (CF2) nSO2NH2	Several	Perfluorohexylethyl acrylate or methacrylate Perfluorocarboxylic acid and salts PFCA)	Several	8:2 FTOH, Perfluorooctyl ethanol	678-39-7
Perfluoroalkylsulfonamidoethy (meth) acrylates F (CF2) nSO2N ® CH2CH2OC (O) CH (R) =CH2 -CH3, -CH2CH3]	Several	Ammonium pentadecafluorooctanoate (APFO)	3825-26-1	Heptadecafluoro-1-iodooctane	507-63-1
PFBS Chemicals	Several	Henicosafluoroundecanoic acid	2058-94-8	PFOA-related substances	Several
Perfluorobutane sulfonic acid / Perfluorobutanesulfonates (PFBS) F (CF2) 4SO3	375-73-5 29420-43-3	Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts	335-76-2 or Several	1H,1H,2H,2H-Perfluorodecyliodide	2043-53-0
Perfluorobutanesulfonamidoethyl (meth) acrylates F(CF2) 4SO2N ® CH2CH2OC (O) CH (R) =CH2 [R = H, -CH3, -CH2CH3	Several	Tricosafluorododecanoic acid	307-55-1	Perfluorooctylethene	21652-58-4
Perfluorobutanesulfonamidoethanols F (CF2) 4SO2N (R)CH2CH2OH2 [R = H, -CH3, -CH2CH3]	Several	Pentacosafluorotridecanoic acid	72629-94-8	Perfluorooctylethyl acrylate or methacrylate	Several
Perfluorobutanesulfonamide F (CF2) 4SO2NH2	Several	Perfluorobutanoic acid (PFBA)	375-22-4		

MRSL Candidate List 2.0 Chapter 2 (version February 2022)

SUBSTANCE	CAS NUMBER	INTENT AND POTENTIAL USE
PHENOL		
Phenol	108-95-2	Zeeman is looking for safe limits for phenol as a contaminant in textile chemical formulations. Phenol is not deliberately used in textiles or footwear but trace amounts of phenol can be found in many chemical formulations.
SOLVENTS		
2-methoxypropanol	1589-47-5	In Version 3 of the Zeeman MRSL it is intended to place restrictions on certain solvents with certain specific hazardous properties (e.g. CMR's). The restrictions are likely to apply to the inclusion of such solvents in formulations for use by wet processors and product assembly factories - and deliberate use of neat solvents in those facilities. Studies on usage patterns, exposure controls, safer alternatives and the potential effects of restrictions are necessary before restrictions can be proposed. Any potential Zeeman MRSL limits will need to be established collaboratively with groups who are working in parallel to study solvents in relation to workplace safety, air emissions, RSL compliance and downstream concerns. There are many uses for solvents from adhesives, coated textiles, prints, etc.
Toluene	108-88-3	
Methanol	67-56-1	
Ethylbenzene	100-41-4	
2-(2-methoxyethoxy)-ethanol	111-77-3	
N-Methyl-2-Pyrrolid one; 1-methyl-2-pyrr olidone (NMP)	872-50-4	With the exception of textile and leather coating processes, where no viable alternative solvent is currently available, the deliberate use of NMP, DMAC and DMFa should be avoided and their presence in all formulations carefully monitored to ensure compliance with product RSLs and the EU regulation for CMR chemicals, 2018/1513. It is intended to publish limits for maximum allowable limits in Version 3 of the Zeeman MRSL. There are many uses for solvents from adhesives, coated textiles, prints, etc.
Dimethyl formamide; N,N- dimethylformamide (DMFa)	68-12-2	
N,N- dimethylacetamide (DMAC)	127-19-5	
TOTAL HEAVY METALS		
Metals (Non -dye /pigment)	Multiple	In Version 3 of the Zeeman MRSL it is intended to place restrictions on the maximum permitted levels of certain metals in (non-dye/pigment) formulations. Studies on usage patterns of metal containing chemicals and formulations and the potential effect of restrictions are required to determine appropriate levels and any possible derogations. Besides in dyes and pigments, metals are used as raw material for trims and other components.

Archived Substances version 2.0 Chapter 3 (version February 2022)

SUBSTANCE	CAS NUMBER	POTENTIAL USES IN APPAREL AND FOOTWEAR TEXTILE PROCESSING
DYES-CARCINOGENIC OR EQUIVALENT CONCERN		
C I Solvent yellow 2	60-11-7	Most of these substances are regulated and should no longer be used for the dyeing of textiles.
D&C Red No. 19	81-88-9	
C.I. Solvent yellow 14	842-07-9	
OTHER /MISCELEANOUS CHEMICALS		
Auramine hydrochloride	2465-27-2	Dye
SOLVENT		
Bis(chloromethyl) ether	542-88-1	In the past, it was used to make several types of polymers, resins, and textiles, but its use is now highly restricted.

Appendix version 2.0 (version February 2022)

C.I. NAME	C.I. No.	C.I. NAME	C.I. No.	C.I. NAME	C.I. No.
DYES THAT POTENTIALLY LIBERATE THE RESTRICTED AZO-AMINE					
C.I. Name: Direct Red 46	C.I.No. 23050	C.I. Name: Direct Red 61	C.I.No. 23040	C.I. Name: Solvent Yellow 12	C.I.No. 11860
C.I. Name: Direct Brown 25	C.I.No. 36030	C.I. Name: Direct Brown 95	C.I.No. 30145	C.I. Name: Acid Red 265	C.I.No. 18129
C.I. Name: Direct Brown 74	C.I.No. 36300	C.I. Name: Direct Brown 54	C.I.No. 31735	C.I. Name: Solvent Orange 13	C.I.No. 26075
C.I. Name: Direct Red 88	C.I.No. 22360	C.I. Name: Direct Brown 154	C.I.No. 30120	C.I. Name: Acid Red 115	C.I.No. 27200
C.I. Name: Direct Brown 27	C.I.No. 31725	C.I. Name: Acid Black 94	C.I.No. 30336	C.I. Name: Solvent Red 2	C.I.No. 12005
C.I. Name: Direct Green 8	C.I.No. 30315	C.I. Name: Direct Green 15	C.I.No. 30315	C.I. Name: Solvent Red 26	C.I.No. 26120
C.I. Name: Direct Green 6	C.I.No. 30295	C.I. Name: Direct Brown 1	C.I.No. 30045	C.I. Name: Solvent Orange 2	C.I.No. 12100
C.I. Name: Direct Green 1	C.I.No. 30280	C.I. Name: Acid Red 85	C.I.No. 22245	C.I. Name: Solvent Yellow 3 monohydrochloride	C.I.No. 37210
C.I. Name: Direct Red 37	C.I.No. 22240	C.I. Name: Direct Brown 59	C.I.No. 22345	C.I. Name: Food Yellow 11	C.I.No. 11390
C.I. Name: Direct Brown 6	C.I.No. 30140	C.I. Name: Direct Blue 6	C.I.No. 22610	C.I. Name: Solvent Yellow 6	C.I.No. 11390
C.I. Name: Direct Brown 1:2	C.I.No. 30110	C.I. Name: Direct Red 1	C.I.No. 22310	C.I. Name: Solvent Yellow 3	C.I.No. 11160
C.I. Name: Mordant Red 57	C.I.No. 22310	C.I. Name: Direct Black 4	C.I.No. 30245	C.I. Name: Solvent Red 24	C.I.No. 26105
C.I. Name: Direct Brown 2	C.I.No. 22311	C.I. Name: Direct Brown 31	C.I.No. 35660	C.I. Name: Azoic Diazo Component 4	
C.I. Name: Acid Orange 45	C.I.No. 22195	C.I. Name: Direct Orange 8		C.I. Name: Direct Red 119	C.I.No. 19590
C.I. Name: Direct Blue 2	C.I.No. 22590	C.I. Name: Direct Red 10	C.I.No. 22145	C.I. Name: Acid Red 148	C.I.No. 26665
C.I. Name: Direct Red 44	C.I.No. 22500	C.I. Name: Direct Black 38	C.I.No. 30235	C.I. Name: Acid Red 24	C.I.No. 16140
C.I. Name: Direct Red 13	C.I.No. 22155	C.I. Name: Direct Red 28	C.I.No. 22120	C.I. Name: Disperse Red 220	C.I.No. 12476
C.I. Name: Direct Orange 1		C.I. Name: Direct Brown 24	C.I.No. 31700	C.I. Name: Basic Brown 4, tannic acid salt	
C.I. Name: Direct Red 52	C.I.No. 22290	C.I. Name: Direct Orange 25	C.I.No. 22135	C.I. Name: Basic Brown 4	C.I.No. 21010

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C.I. NAME	C.I. No.	C.I. NAME	C.I. No.	C.I. NAME	C.I. No.
DYES THAT POTENTIALLY LIBERATE THE RESTRICTED AZO-AMINE					
C.I. Name: Direct Yellow 24	C.I.No. 22010	C.I. Name: Direct Yellow 1	C.I.No. 22250	C.I. Name: Solvent Orange 13	C.I.No. 26075
C.I. Name: Direct Violet 22	C.I.No. 22480	C.I. Name: Direct Red 17	C.I.No. 22150	C.I. Name: Acid Red 115	C.I.No. 27200
C.I. Name: Direct Red 73	C.I.No. 29180	C.I. Name: Acid Red 35	C.I.No. 18065	C.I. Name: Solvent Red 24	C.I.No. 26105
C.I. Name: Direct Red 62	C.I.No. 29175	C.I. Name: --	C.I.No. 11325	C.I. Name: Acid Black 28	C.I.No. 20500
C.I. Name: --	C.I.No. 11280	C.I. Name: Acid Red 148	C.I.No. 26665	C.I. Name: Direct Blue 160	
C.I. Name: Direct Blue 1,2Ba salt		C.I. Name: Direct Black 114		C.I. Name: Solvent Red 1	C.I.No. 12150
C.I. Name: Direct Black 91	C.I.No. 30400	C.I. Name: Direct Dye	C.I.No. 24230	C.I. Name: Acid Red 128	C.I.No. 24125
C.I. Name: Direct Blue 35	C.I.No. 24145	C.I. Name: Direct Blue 151	C.I.No. 24175	C.I. Name: Direct Blue 10	C.I.No. 24340
C.I. Name: Direct Blue 1 free acid		C.I. Name: Direct Blue 168	C.I.No. 24185	C.I. Name: Direct Red 7	C.I.No. 24100
C.I. Name: Direct Blue 1	C.I.No. 24410	C.I. Name: Direct Blue 22	C.I.No. 24280	C.I. Name: Direct Blue 15	C.I.No. 24400
C.I. Name: Direct Blue 8	C.I.No. 24140	C.I. Name: Direct Blue 150	C.I.No. 35110	C.I. Name: Solvent Yellow 107	C.I.No. 21140
C.I. Name: Direct Black 154	C.I.No. 303865	C.I. Name: Direct Orange 6	C.I.No. 23375	C.I. Name: Direct Red 67	C.I.No. 23505
C.I. Name: Direct Brown 52	C.I.No. 31885	C.I. Name: Acid Red 114	C.I.No. 23635	C.I. Name: Direct Blue 295	C.I.No. 23820
C.I. Name: Direct Blue 21	C.I.No. 23710	C.I. Name: Direct Orange 30	C.I.No. 23665	C.I. Name: Direct Orange 31	C.I.No. 23655
C.I. Name: Direct Orange 10	C.I.No. 23370	C.I. Name: Direct Red 39	C.I.No. 23630	C.I. Name: Direct Blue 3	C.I.No. 23705
C.I. Name: Direct Blue 25	C.I.No. 23790	C.I. Name: Direct Red 2	C.I.No. 23500	C.I. Name: Direct Blue 53	C.I.No. 23860
C.I. Name: Direct Blue 14	C.I.No. 23850	C.I. Name: Direct Green 85		C.I. Name: Direct Brown 222	
C.I. Name: Direct Blue 60	C.I.No. 23810	C.I. Name: Direct Black 30	C.I.No. 23675	C.I. Name: Direct Violet 28	C.I.No. 23685
C.I. Name: Solvent Red 17	C.I.No. 12155	C.I. Name: Direct Blue 163		C.I. Name: Food Red 6 Free acid	C.I.No. 16155

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C.I. NAME	C.I. No.	C.I. NAME	C.I. No.	C.I. NAME	C.I. No.
DYES THAT POTENTIALLY LIBERATE THE RESTRICTED AZO-AMINE					
C.I. Name: Basic Brown 2	C.I.No. 21030	C.I. Name: Disperse Red 151	C.I.No. 26130	C.I. Name: Solvent Red 19	C.I.No. 26050
C.I. Name: Disperse Yellow 7	C.I.No. 26090	C.I. Name: Disperse Yellow 23	C.I.No. 26070	C.I. Name: Solvent Red 31	C.I.No. 27306
C.I. Name: Solvent Red 30	C.I.No. 27291	C.I. Name: Acid Red 150	C.I.No. 27190	C.I. Name: Acid Red 73	
C.I. Name: Solvent Red 69	C.I.No. 27290	C.I. Name: Solvent Red 23	C.I.No. 26100	C.I. Name: Solvent Orange 14	C.I.No. 26020
C.I. Name: Basic Red 76	C.I.No. 12245	C.I. Name: Direct Red 24		C.I. Name: Acid Violet 12	C.I.No. 18075
C.I. Name: Acid Red 264	C.I.No. 18133	C.I. Name: Direct Red 123	C.I.No. 17820	C.I. Name: Direct Red 24	C.I.No. 29185
C.I. Name: Acid Red 107	C.I.No. 18025	C.I. Name: Acid Red 5	C.I.No. 14905	C.I. Name: Acid Red 4	C.I.No.14710
C.I. Name: Direct Red 26	C.I.No. 29190	C.I. Name: Food Red 16			