

Restricted Substance List RSL

March 2018

RESTRICTED AND LIMITED CHEMICALS IN TEXTILE AND LEATHER MATERIALS AND PRODUCTS

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RESTRICTED AND LIMITED CHEMICALS IN TEXTILE AND LEATHER MATERIALS AND PRODUCTS

1. COLOURANTS

1.1. AZO DYES

Table 1. Azo dyes

SUBSTANCE	CAS NO.	REGULATION	LIMIT
biphenyl-4-ylamine; 4-aminobiphenyl xenylamine	92-67-1	1907/2006 REACH	30mg/kg AND 0,003% by weight
Benzidine	92-87-5	1907/2006 REACH	30mg/kg AND 0,003% by weight
4-chloro-o-toluidine	95-69-2	1907/2006 REACH	30mg/kg AND 0,003% by weight
2-naphthylamine	91-59-8	1907/2006 REACH	30mg/kg AND 0,003% by weight
o-aminoazotoluene; 4-amino-2',3'-dimethylazobenzene; 4-o-tolylazo-o-toluidine	97-56-3	1907/2006 REACH	30mg/kg AND 0,003% by weight
5-nitro-o-toluidine	99-55-8	1907/2006 REACH	30mg/kg AND 0,003% by weight
4-chloroaniline	106-47-8	1907/2006 REACH	30mg/kg AND 0,003% by weight
4-methoxy-mphenylenediamine	615-05-4	1907/2006 REACH	30mg/kg AND 0,003% by weight
4,4'-methylenedianiline; 4,4'-diaminodiphenylmethane	101-77-9	1907/2006 REACH	30mg/kg AND 0,003% by weight
3,3'-dichlorobenzidine; 3,3'-dichlorobiphenyl-4,4'-ylenediamine	91-94-1	1907/2006 REACH	30mg/kg AND 0,003% by weight
3,3'-dimethoxybenzidine o-dianisidine	119-90-4	1907/2006 REACH	30mg/kg AND 0,003% by weight
3,3'-dimethylbenzidine 4,4'-bi-o-toluidine	119-93-7	1907/2006 REACH	30mg/kg AND 0,003% by weight
4,4'-methylenedi-o-toluidine	838-88-0	1907/2006 REACH	30mg/kg AND 0,003% by weight
6-methoxy-m-toluidine p-cresidine	120-71-8	1907/2006 REACH	30mg/kg AND 0,003% by weight
4,4'-methylene-bis-(2-chloro-aniline) 2,2'-dichloro-4,4'-methylene-dianiline	101-14-4	1907/2006 REACH	30mg/kg AND 0,003% by weight
4,4'-oxydianiline	101-80-4	1907/2006 REACH	30mg/kg AND 0,003% by weight
4,4'-thiodianiline	139-65-1	1907/2006 REACH	30mg/kg AND 0,003% by weight
o-toluidine; 2-aminotoluene	95-53-4	1907/2006 REACH	30mg/kg AND 0,003% by weight
4-methyl-m-phenylenediamine	95-80-7	1907/2006 REACH	30mg/kg AND 0,003% by weight
2,4,5-trimethylaniline	137-17-7	1907/2006 REACH	30mg/kg AND 0,003% by weight
o-anisidine (2-methoxyaniline)	90-04-0	1907/2006 REACH	30mg/kg AND 0,003% by weight
2,4 aminoazobenzene	60-09-3	1907/2006 REACH, 76/769EEC	30mg/kg AND 0,003% by weight
2,4-xylidine	95-38-1	1907/2006 REACH, 76/769EEC	30mg/kg AND 0,003% by weight
2,6-xylidine	87-62-7	1907/2006 REACH, 76/769EEC	30mg/kg AND 0,003% by weight
A mixture of: disodium (6-(4-anisidino)-3-sulfonato-2-(3,5-dinitro-2-oxidophenylazo)-1-naphtholato)(1-(5-chloro-2-oxidophenylazo)-2-naphtholato)chromate(1-); trisodium bis(6-(4-anisidino)-3-sulfonato-2-(3,5-dinitro-2-oxidophenylazo)-1-naphtholato)chromate(1-)	Not allocated Component 1: CAS- No: 118685-33-9 C39H23ClCrN7O12S . 2Na Component 2: C46H30CrN10O20S2 . 3Na	1907/2006 REACH, 76/769EEC, Appendix 9	0,1% by weight

1.2. CARCINOGENIG DYES

Table 1. Restricted, carcinogenic dyes.

SUBSTANCE	CAS NO.	REGULATION	LIMIT
C.I Acid red 26	3761-53-3	Decision 2009/567/EC	<0,1% by weight
C.I Basic Blue 26	2580-56-5	Decision 2009/567/EC	<0,1% by weight
C.I Basic Green 4	68513-86-0, 569-64-2, 2437-29-8, 10309-95-2	Decision 2009/567/EC	<0,1% by weight
C.I Basic Red 9	569-61-9	Decision 2009/567/EC	<0,1% by weight
C.I Basic Violet 14	632-99-5	Decision 2009/567/EC	<0,1% by weight
C.I Direct Black 38	1937-37-7	Decision 2009/567/EC	<0,1% by weight
C.I Direct Blue 3	2475-46-9	Decision 2009/567/EC	<0,1% by weight
C.I Direct Blue 6	2602-46-2	Decision 2009/567/EC	<0,1% by weight
C.I Disperse Blue 1	2475-45-8	Decision 2009/567/EC	<0,1% by weight
C.I Disperse Orange 11	82-28-0	Decision 2009/567/EC	<0,1% by weight

Table 2. SVHC carcinogenic dyes

SUBSTANCE	CAS NO.	REGULATION	LIMIT
C.I Basic Violet 3	548-62-9	SVHC	<0,1% by weight
C.I Direct Red 28	573-58-0	SVHC	<0,1% by weight
C.I Pigment Red 104	12656-85-8	SVHC	<0,1% by weight
C.I Solvent Blue 4	6786-83-0	SVHC	<0,1% by weight

1.3. ENVIRONMENTALLY HARMFUL DYES

Table 3. Environmentally harmful dyes.

SUBSTANCE	CAS NO.	REGULATION	LIMIT
Navy Blue 018112	n.a. (index 611-070-00-02)	2003/3 EU	N.D
A mixture of: disodium (6-(4-anisidino)-3-sulfonato-2-(3,5-dinitro-2-oxidophenylazo)-1-naphtholato)(1-(5-chloro-2-oxidophenylazo)-2-naphtholato)chromate(1-); trisodium bis(6-(4-anisidino)-3-sulfonato-2-(3,5-dinitro-2-oxidophenylazo)-1-phtholato)chromate(1-)'	Not allocated: Component 1: CAS- No.: 118685-33-9 C39H23ClCrN7O12S .2Na Component 2: C46H30CrN10O20S2 .3Na	1907/2006 REACH; 2003/3/EU	N.D

N.D = not detected, this substance may not be used

1.4. DISPERSE DYES

Table 4. Disperse dyes.

SUBSTANCE	CAS NO.	REGULATION	LIMIT
C.I. Disperse Blue 3	2475-46-9	2009/567/EC	N.D
C.I. Disperse Blue 7	3179-90-6	2009/567/EC	N.D
C.I. Disperse Blue 26	3860-63-7	2009/567/EC	N.D
C.I. Disperse Blue 35	12222-75-2	2009/567/EC	N.D
C.I. Disperse Blue 102	12222-97-8	2009/567/EC	N.D
C.I. Disperse Blue 106	12223-01-7	2009/567/EC	N.D
C.I. Disperse Blue 124	61951-51-7	2009/567/EC	N.D
C.I. Disperse Brown 1	23355-64-8	2009/567/EC	N.D
C.I. Disperse Orange 1	2581-69-3	2009/567/EC	N.D
C.I. Disperse Orange 3	730-40-5	2009/567/EC	N.D
C.I. Disperse Orange 37	13301-61-6	2009/567/EC	N.D
C.I. Disperse Orange 59			
C.I. Disperse Orange 76			
C.I. Disperse Red 1	2872-52-8	2009/567/EC	N.D
C.I. Disperse Red 11	2872-48-2	2009/567/EC	N.D
C.I. Disperse Red 17	3179-89-3	2009/567/EC	N.D
C.I. Disperse Yellow 1	119-15-3	2009/567/EC	N.D
C.I. Disperse Yellow 3	2832-40-8	2009/567/EC	N.D
C.I. Disperse Yellow 9	6373-73-5	2009/567/EC	N.D
C.I. Disperse Yellow 39	12236-29-2	2009/567/EC	N.D
C.I. Disperse Yellow 49	12236-29-2	2009/567/EC	N.D

2. FLAME RETARDANTS

Table 5. Restricted flame retardants.

SUBSTANCE	CAS NO.	REGULATION	LIMIT
tris(2,3-dibromopropyl) phosphate , TRIS	126-72-7	1907/2006 REACH, 552/2009/EU	N.D
tris(1-aziridinyl)phosphine oxide, TEPA	5455-55-1	1907/2006 REACH, 552/2009/EU	N.D
Polybrominated biphenyls PBB	59536-65-1	1907/2006 REACH, 552/2009/EU	N.D
Hexabromobiphenyl	36355-01-8	757/2010, 850/2004	N.D
Octabromodiphenyl ether (OctaBDE)	32536-52-0	552/2009/EU	N.D
Tetrabromodiphenylether	5436-43-1	757/2010/EU	N.D
Pentabromodiphenyl ether (PBDE)	32534-81-9	757/2010/EU	N.D
Heptabromodiphenyl ether	446255-22-7; 207122-16-5	757/2010/EU	N.D

N.D = not detected, this substance may not be used

Table 6. SVCH flame retardants.

SUBSTANCE	CAS NO.	REGULATION	LIMIT
Decabromodiphenyl ether (DecaBDE)	1163-19-5	SVHC	0.1% by weight
Hexabromocyclododecane (HBCDD)	2563-99-4	SVHC	0.1% by weight
Trixylyl phosphate	25155-23-1	SVHC	0.1% by weight
1,6,7,8,9,14,15,16,17,17,18,18-Dodecachloropentacyclo[12.2.1.1.16,9.02,13.05,10]octadeca-7,15-diene ("Dechlorane Plus"™) [covering any of its individual anti- and syn-isomers or any combination thereof]	-	SVHC	0.1% by weight

3. HEAVY METALS

Table 7. Restricted or limited heavy metals.

SUBSTANCE	CAS NO.	REGULATION	LIMIT
Arsenic (As) and its compounds	7440-38-2	1907/2006 REACH	N.D
Cadmium (Cd) and its compounds, Cadmium stabilizers	7440-43-9	EU Directive 91/338/EEC; 1907/2006 REACH, Finnish law 1415/1992	N.D
Chromium VI (Cr VI)	1333-82-0	1907/2006 REACH, Annex XVII	0,0003% by weight (3mg/kg)
Lead (Pb) and its compounds	7439-92-1	1907/2006 REACH, 76/769 EEC	100mg/kg applicable for: textiles, leather, plastic; 90mg/kg applicable for: toy materials and garment accessories (e.g. zippers, buttons, rivets, decorative glass beads/jewelry, metal jewelry, lead crystal glass, etc.)
Mercury (Hg) and its compounds	92786-62-4	1907/2006 REACH	N.D
Nickel (Ni)	8049-31-8	EU Directive 2004/96/EU. Finnish law 494/2005, 1907/2006 REACH	A product (e.g. buttons, studs, zips etc.) may emit no more than 0,5 µg/cm ² /week

N.D = not detected, this substance may not be used

Table 9. SVHC heavy metals.

SUBSTANCE	CAS NO.	REGULATION	LIMIT
Cadmium nitrate	10325-94-7	SVHC	0,1% by weight
Cadmium hydroxide	21041-95-2	SVHC	0,1% by weight
Cadmium carbonate	513-78-0	SVHC	0,1% by weight

4. POLYCYCLIC-AROMATIC HYDROCARBONS

Table 8. Restricted or limited polycyclic- aromatic hydrocarbons.

SUBSTANCE	CAS NO.	REGULATION	LIMIT
Benzo[a]pyrene (BaP)	50-32-8	1907/2006 REACH + amendments 1272/2013	accessible plastic or rubber parts: 1mg/kg; children's articles & toys: 0,5mg/kg; Sum of listed PAHs <10mg/kg
Benzo[e]pyrene (BeP)	192-97-2	1907/2006 REACH + amendments 1272/2013	accessible plastic or rubber parts: 1mg/kg; children's articles & toys: 0,5mg/kg; Sum of listed PAHs <10mg/kg
Benzo[a]anthracene (BaA)	56-55-3	1907/2006 REACH + amendments 1272/2013	accessible plastic or rubber parts: 1mg/kg; children's articles & toys: 0,5mg/kg; Sum of listed PAHs <10mg/kg
Chrysen (CHR)	218-01-9	1907/2006 REACH + amendments 1272/2013	accessible plastic or rubber parts: 1mg/kg; children's articles & toys: 0,5mg/kg; Sum of listed PAHs <10mg/kg
Benzo[b]fluoranthene (BbFA)	205-99-2	1907/2006 REACH + amendments 1272/2013	accessible plastic or rubber parts: 1mg/kg; children's articles & toys: 0,5mg/kg; Sum of listed PAHs <10mg/kg
Benzo[j]fluoranthene (BjFA)	205-82-3	1907/2006 REACH + amendments 1272/2013	accessible plastic or rubber parts: 1mg/kg; children's articles & toys: 0,5mg/kg; Sum of listed PAHs <10mg/kg
Benzo[k]fluoranthene (BkFA)	207-08-9	1907/2006 REACH + amendments 1272/2013	accessible plastic or rubber parts: 1mg/kg; children's articles & toys: 0,5mg/kg; Sum of listed PAHs <10mg/kg
Dibenzo[a,h]anthracene (DBA _h A)	53-70-3	1907/2006 REACH + amendments 1272/2013	accessible plastic or rubber parts: 1mg/kg; children's articles & toys: 0,5mg/kg; Sum of listed PAHs <10mg/kg

5. PERFLUORINATED ALKYL SUBSTANCES (PFAS)

Table 9. Restricted or limited PFAS-compounds.

SUBSTANCE	CAS NO.	REGULATION	LIMIT
Perfluorooctane-sulfonates (PFOS)	1763-23-1	2006/122 EC Directive, Regulation 757/2010, Finnish Decree 18/2008	textiles or other coated materials: 1 µg/m ² of the coated material

Table 10. SVHC long-chain carboxyl acid compounds (PFCA-compounds).

SUBSTANCE	CAS NO.	REGULATION	LIMIT
Perfluorooctane acids (PFOA)	335-67-1	SVHC	ND
Perfluorononan-1-oic-acid (PFNA) and its sodium and ammonium saltspropanesultone	375-95-1, 21049-39-8, 21049-39-8	SVHC	0,1% by weight
Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts	3108-42-7, 3830-45-3, 3108-42-7	SVHC	0,1% by weight

6. ALKANES OR CHLORINATED PARAFFINES

Table 11. Restricted or limited chlorinated paraffines.

SUBSTANCE	CAS NO.	REGULATION	LIMIT
Alkanes C10 - C13 Chlorine (short chain chlorinated paraffines, SCCPs)	85535-84-8	2002/45 EC	Shall not be placed on the market for use as substances or as constituents of other substances or preparations in concentrations higher than 1 % for fat liquoring of leather

7. PHTALATES

Table 12. Restricted or limited phthalates in toys and childcare articles.

SUBSTANCE	CAS NO.	REGULATION	LIMIT
bis (2-ethylhexyl) phthalate (DEHP)	117-81-7	1907/2006 REACH SVHC , 2004/781/EU	Shall not be used as substances or as constituents of preparations, at concentrations higher than 0,1% by mass of the plasticised materials in toys and childcare articles which can be placed in the mouth by children
dibutyl phthalate (DBP)	84-74-2	1907/2006 REACH SVHC , 2004/781/EU	
benzyl butyl phthalate (BBP)	85-68-7	1907/2006 REACH SVHC , 2004/781/EU	
di-'isononyl' phthalate (DINP)	28553-12-0 and 68515-48-0	1907/2006 REACH SVHC , 2004/781/EU	
di-'isodecyl' phthalate (DIDP)	26761-40-0 and 68515-49-1	1907/2006 REACH SVHC , 2004/781/EU	
di-n-octyl phthalate (DNOP)	117-84-0	1907/2006 REACH SVHC , 2004/781/EU	

8. CHLORINATED PHENOLS

Table 13. Restricted or limited chlorinated phenols.

SUBSTANCE	CAS NO.	REGULATION	LIMIT
Pentachlorophenol (PCP) and and its salts and esters	87-86-5	1907/2006 REACH, Finnish law 143/2000	<0,1% by weight

9. ORGANOTIN COMPOUNDS

Table 14. Restricted or limited Organotin compounds.

SUBSTANCE	CAS NO.	REGULATION	LIMIT
Tributyltin (TBT)+compounds	688-73-3	Commission Decision 2009/425/EY, 1907/2006 REACH	0,1 % by weight
Triphenyltin (TPhT) + compounds	668-34-8	1907/2006 REACH	0,1 % by weight
Dibutyltin (DBT)	1002-53-5	Commission Decision 2009/425/EY, 1907/2006 REACH	0,1 % by weight
Diocetyl(oxo)tin	870-08-6	Commission Decision 2009/425/EY	0,1 % by weight

10. BIOCIDES

Table 15. Restricted or limited Biosides.

SUBSTANCE	CAS NO.	REGULATION	LIMIT
Dimethylfumarate (DMF)	624-49-7	Commission Decision 2009/251/EU	<0,1mg/kg
Chlordecone	143-50-0	POP 850/2004, 756/2010	ND
Lindane (Gamma-hexachlorocyclohexane)	58-89-9	POP 850/2004, 756/2010	<50mg/kg

Table 16. SVHC biosides.

SUBSTANCE	CAS NO.	REGULATION	LIMIT
Boric acid	10043-35-3	SVHC	ND

11. FORMALDEHYDE

Table 17. Formaldehyde

SUBSTANCE	CAS NO.	REGULATION	LIMIT
Formaldehyde	50-00-0	national decree 233/2012	30mg/kg for textiles and textile toys for children under the age of two (2); 100mg/kg for all textiles that come into contact with skin during normal use and for textile toys for children older than two years (2) of age; 300mg/kg for all other textiles and for leather goods

12. ALKYLPHENOLS AND ALKYLPHENOL ETHOXYLATES (APEO)

Table 18. Restricted or limited alkylphenols and alkylphenol ethoxylates.

SUBSTANCE	CAS NO.	REGULATION	LIMIT
Nonylphenol C ₆ H ₄ (OH)C ₉ H ₁₉	104-40-5, 11066-49-2, 25154-52-3, 84852-15-3	Decree of Finnish Government 596/2004; 1907/2006 REACH, Directive 2003/53/EC (EU, 2003b)	0,1 % by weight
Nonylphenol ethoxylate (C ₂ H ₄ O) _n C ₁₅ H ₂₄ O	9016-45-9, 26027-38-3, 37205-87-1, 68412-54-4, 127087-87-0	SVHC	0,1 % by weight
Octylphenol (OP)	140-66-9, 1806-26-4, 27193-28-8	SVHC	0,1 % by weight
Octylphenol Ethoxylates (OPE)	9002-93-1, 9036-19-5, 68987-90-6,	SVHC	0,1 % by weight

13. UV-PROTECTION AGENTS

Table 19. SVHC, UV-protection agents.

SUBSTANCE	CAS NO.	REGULATION	LIMIT
2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	3864-99-1	SVHC	0,1% by weight
2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	36437-37-3	SVHV	0,1% by weight
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1	SVHC	0,1% by weight
2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7	SVHC	0,1% by weight

14. BENZENE

Table 20. Benzene.

SUBSTANCE	CAS NO.	REGULATION	LIMIT
Benzene	71-43-2	1907/2006 REACH, 76/769 EEC	<p>1. Not permitted in toys or parts of toys as placed on the market where the concentration of benzene in the free state is in excess of 5 mg/kg (0,0005%) of the weight of the toy or part of toy.</p> <p>2. Shall not be used in concentrations equal to, or greater than, 0,1 % by mass in substances or preparations placed on the market.</p>

15. NITROBENZENE

Table 21. SVHC, Nitrobenzene.

SUBSTANCE	CAS NO.	REGULATION	LIMIT
Nitrobenzene	98-95-3	SVHC	<0,1% by weight

16. CHLORINATED BENZENES AND TOLUENES (CARRIERS)

Table 22. Restricted or limited Chlorinated Benzenes and Toluenes.

SUBSTANCE	CAS NO.	REGULATION	LIMIT
Dichlorobenzenes	106-46-7; 95-50-1	Regulation 474/2014	<1% by weight
Trichlorobenzenes	120-82-1	1907/2006 REACH	<0,1% by weight
Pentachlorobenzenes	608-93-5	Regulation 8757/2010	N.D
Hexachlorobenzenes	118-74-1	Regulation 8757/2010	N.D

17. PHENOLS AND BISPHENOL-A

Table 23. SVHC Phenols and Bisphenol-A

SUBSTANCE	CAS NO.	REGULATION	LIMIT
4,4'-isopropylidenediphenol (bisphenol A; BPA)	80-05-7	SVHC	0,1 % by weight
p-(1,1-dimethylpropyl)phenol	80-46-6	SVHC	0,1 % by weight
4-heptylphenol, branched and linear	1987-50-4	SVHC	0,1 % by weight

18. NANO MATERIALS

The nanoparticles have a size of 1-100 nm at least one external dimension. Due to the particularly small particle size, the characteristics of the nanomaterial may differ from those materials of which contain larger particles.. Nanomaterials are subject to REACH regulations and risk assessment is to be carried out accordingly.

19. OTHER SUBSTANCES AND CHEMICALS

Taulukko 24. SVHC substances.

SUBSTANCE	CAS NO.	REGULATION	LIMIT
1-Methyl-2-pyrrolidone (NMP)	872-50-4	SVHC	0,1% by wight
Perfluorohexane-1-sulphonic acid and its salts PFHxS	355-46-4	SVHC	0,1% by wight