



2015
VF Corporation
Restricted Substance List
(RSL)

Supplier Policy

Applicable to all products of
VF Corporation or any of its subsidiaries

Introduction

The Restricted Substance List (RSL) applies to all VF Products¹, including but not limited to apparel, footwear, equipment, accessories and other products of value. The RSL also applies to all Raw Materials², parts, trims, sundries, chemicals and other goods supplied or used in the manufacture of VF Products.

The RSL is an integral part of VF's quality and safety programs and must be shared with all vendors, suppliers and other players throughout the product supply chain.

Each supplier of VF Product or Raw Material represents and warrants that each of its materials (whether a VF Product or Raw Material) complies with all provisions of the RSL (including, but not limited to, the RSL prohibitions, restrictions and other requirements) and that the supplier agrees to indemnify and hold harmless VF Corporation and its subsidiaries and brands (collectively, "VF") from any claim, loss, damage or other detriment, resulting from any such supplier's non-compliance.

We require our suppliers and business partners to study this document carefully, implement management processes in their operations to comply with these requirements (including a verification process), and communicate the information to their internal teams and raw material suppliers.

We require each of our suppliers of VF Products or Raw Materials to certify their compliance to the 2015 VF Corporate RSL by executing the Supplier RSL Compliance Agreement (Section 1 of this document) and uploading the executed agreement to the VF Infocenter and/or sending it to your respective VF sourcing manager.

Should you have any questions or concerns about this document, please do not hesitate to contact your VF corporate or brand contact person, one of the contact people listed in Appendix 1, or the general RSL mailbox for VF (RSL@vfc.com).

¹ VF Products include all products that VF Corporation or any of its subsidiaries or agents on behalf of VF offers for sale. These include apparel, non-apparel, footwear, accessories, equipment and all other items sold by, for, or on behalf of VF Corporation or one of its subsidiaries.

² Raw Materials are defined by any material or intermediary material used in the manufacture of a VF Product. Examples of Raw Materials include fabrics (natural or synthetic), leather, plastic parts, metal parts, chemicals, paint, rope, string, buttons, zippers, snaps, or any other good used in the production of a VF Product.

Table of Contents

INTRODUCTION	2
TABLE OF CONTENTS	3
SECTION 1: VF CORPORATION 2015 RSL COMPLIANCE AGREEMENT	5
SECTION 2: SUBSTANCES WHICH MAY BE FOUND IN SOME PRODUCTS	7
A: AROMATIC AMINES FROM AZO DYES	8
B: DISPERSE DYES AND OTHER DYES	9
C: METALS.....	10
D: PHTHALATES	13
E: AUXILIARY SUBSTANCES	15
F: ORGANOTIN COMPOUNDS	16
G: ALKYL PHENOLS AND ALKYL PHENOL ETHOXYLATES (APs AND APEOs)	16
H: POLYCYCLIC AROMATIC HYDROCARBONS (PAH)	17
I: SOLVENTS AND VOLATILE ORGANIC COMPOUNDS (VOCs)	18
J: CHLORINATED AROMATICS.....	18
K: FLAME RETARDANTS	19
L: RESTRICTIONS ON PACKAGING.....	21
M: ROHS – ELECTRICAL AND ELECTRONIC EQUIPMENT	21
N: FOOD CONTACT MATERIALS	22
O: N-NITROSAMINES – SHOE SOLE MATERIALS AND TOYS.....	23
P: PHASE-OUT AND UNINTENTIONALLY PRESENT SUBSTANCES	23
SECTION 3: SUBSTANCES WHICH ARE NOT LIKELY FOUND IN PRODUCTS	25
A: DIOXINS AND FURANS	25
B: ASBESTOS	26
C: PESTICIDES.....	26
D: OTHER ORGANIC CHEMICALS	28
SECTION 4: AIR AND GAS FILLED PRODUCTS	29
A: FLUORINATED GREENHOUSE GASES	29
B: CLASS I OZONE DEPLETING SUBSTANCES.....	29
C: CLASS II OZONE DEPLETING SUBSTANCES.....	31
SECTION 5: LIQUID FILLED PRODUCTS	32
SECTION 6: REACH-EU’S REGULATION CONCERNING THE REGISTRATION, EVALUATION, AUTHORIZATION AND RESTRICTION OF CHEMICALS	33
A: REACH–EUROPEAN REGULATION No 1907/2006	33
B: OWNERSHIP AND KEY ELEMENTS OF REACH.....	33
C: OBLIGATIONS UNDER REACH.....	34
D: SUBSTANCES OF VERY HIGH CONCERN	34
E: USEFUL LINKS	40
SECTION 7: BIOCIDES	42
A: BIOCIDES PRODUCT REGULATION (BPR) – EU REGULATION No. 528/2012	42
B: DEFINITIONS WITHIN THE BPR	43
C: IMPORTANT ASPECTS OF THE BPR	43
D: IMPORTANT LINKS.....	44
SECTION 8: CPSIA - UNITED STATES CONSUMER PRODUCT SAFETY IMPROVEMENT ACT	45
A: SCOPE.....	45

B: CERTIFICATIONS	45
SECTION 9: RSL PRODUCT TESTING GUIDANCE	46
SECTION 10: CHEMICAL INFORMATION LOG.....	48
APPENDIX 1: VF RSL CONTACTS.....	50
APPENDIX 2: DEFINITIONS	51
APPENDIX 3: INDEX OF CAS NUMBERS	54

Section 1: VF Corporation 2015 RSL Compliance Agreement

VF Corporation and each of its subsidiaries, business units and brands (collectively, “VF”) requires each supplier of VF Products or Raw Materials to confirm its understanding of the VF Restricted Substance List (RSL) by executing the following VF 2015 RSL Supplier Compliance Agreement. Each supplier of a VF Product or Raw Material represents and warrants that each of its materials complies with all provisions of the RSL (including, but not limited to, the RSL prohibitions, restrictions and other requirements) and that the supplier will indemnify and hold harmless VF from any claim, loss, damage or other detriment, resulting from any such supplier’s non-compliance.

We require our suppliers and business partners to study this document carefully, implement management and verification (testing and auditing) processes in their operations to comply with these requirements, and communicate the information to their internal teams and raw material suppliers.

We require each of our suppliers of VF Products or Raw Materials to certify their compliance to the 2015 VF Corporate RSL by executing the Supplier RSL Compliance Agreement (Section 1 of this document) and uploading the executed agreement to the VF Infocenter and/or sending it to your respective VF sourcing manager.

All suppliers are required to fill out all info fields at the bottom part of the VF Corporation 2015 RSL Compliance Agreement (p.6).

VF Corporation 2015 RSL Supplier Compliance Agreement

We understand that VF's Restricted Substance List program is an important aspect of the business of VF Corporation and its subsidiaries and brands (collectively, "VF") and adds significant value to VF's brands. Accordingly, we hereby declare and agree that:

- We have received, read, fully understand and will keep fully apprised of VF's Restricted Substance List, including its prohibitions, limitations and requirements, as published in 2015 and as it may be amended from time to time, hereafter the "RSL";
- Compliance with the RSL is a condition to and incorporated in each and every order placed by VF or one of VF's subsidiaries or business units; each shipment constitutes our warranty that the materials, parts, chemicals and other goods shipped by us fully comply with the RSL;
- We understand and agree that every order VF gives us is in reliance on this agreement;
- We certify that each current and future material, part, chemical and other good, that we supply or otherwise deliver to VF meets, and will continue to meet, each prohibition, limitation and other requirement of the RSL;
- VF reserves the right, but not the obligation, to test, by the RSL-specified method, or other appropriate method, any ordered material, part, chemical and other good, at any time or stage of production;
- We agree to keep available for at least ten (10) years from the delivery date of any order to VF, all information concerning any substances we use in manufacturing VF's orders.
- Failure to comply with the RSL is a material breach of any agreement we have with VF, notwithstanding any other term of that agreement;
- We do and will continue to hold VF, its agents and its employees harmless against, and will defend and indemnify VF, its agents and its employees against, any and all claims, losses, liabilities, expenses, and damages, including reasonable attorneys fees and costs, caused by our failure to comply with any prohibition, limitation or other requirement of the RSL or this Agreement.

The undersigned is an owner, director, officer or managing agent, authorized to agree to and sign this Agreement on behalf of the company identified below.

Printed name: _____ **Company:** _____

Position: _____

Address: _____

Signature: _____

E-mail Address: _____ **Date:** _____

Send the executed Compliance Agreement to the attention of the appropriate VF RSL Contact as specified in Appendix 1 or e-mail it to rsl@vfc.com

Section 2: Substances Which May Be Found in Some Products

This section lists the substances which may be found in VF Products and are of primary focus for VF Corporation and its subsidiaries (collectively referred to herein as “VF”). The substances, limit values and test methods listed in Section 2 shall be diligently studied and understood by each supplier of a VF Product or Raw Material. Each supplier must develop a management system to ensure all materials produced meet each and every requirement of this Section.

This section contains limitation on the following groups of substances or substance restrictions based on product type:

- Aromatic Amines from Azo Dyes
- Disperse and Other Dyes
- Metals
- Phthalates
- Auxiliary Substances
- Organotin Compounds
- Alkyl Phenols and Alkyl Phenol Etoxylates (APs and APEOs)
- Polycyclic Aromatic Hydrocarbons (PAHs)
- Solvents and Volatile Organic Compounds (VOCs)
- Chlorinated Aromatics
- Flame Retardants
- Restrictions on Packaging
- RoHS – Electrical and Electronic Equipment
- Food Contact Materials
- N-Nitrosamines – Shoe Sole Materials and Toys
- Phase-Out and Unintentionally Present Substances

A: Aromatic Amines from Azo Dyes

Chemical Substance	CAS Number	Limit Value Final Product (mg/kg) ³	Test Method ⁴
4-Aminoazobenzene ⁵	60-09-3	20 ppm ⁶	<p>Textile: EN 14362-1:2012</p> <p>Natural leather: ISO 17234-1:2015 [RL=5]</p> <p>Products for China market: China Standard GB 18401 Textile: GB/T 17592</p> <p>China Standard GB 20400 Natural leather: GB/T 19942 [RL=5]</p>
o-Aminoazotoluene	97-56-3		
4-Aminodiphenyl	92-67-1		
2-Amino-4-nitrotoluene	99-55-8		
o-Anisidine	90-04-0		
Benzidine	92-87-5		
p-Chloroaniline	106-47-8		
4-Chloro-o-toluidine	95-69-2		
p-Cresidine	120-71-8		
2,4-Diaminoanisole	615-05-4		
4,4'-Diamino-diphenylmethane	101-77-9		
3,3'-Dichlorobenzidine ⁷	91-94-1		
3,3'-Dimethoxybenzidine	119-90-4		
3,3'-Dimethylbenzidine	119-93-7		
3,3'-Dimethyl-4,4'-diamino-diphenylmethane	838-88-0		
4,4'-Methylene-bis-(2-chloraniline)	101-14-4		
2-Naphthylamine	91-59-8		
4,4'-Oxydianiline	101-80-4		
4,4'-Thiodianiline	139-65-1		
2,4-Toluenediamine	95-80-7		
o-Toluidine	95-53-4		
2,4,5-Trimethylaniline	137-17-7		
2,4-Xylidine	95-68-1		
2,6-Xylidine	87-62-7		

³ The concentration limit is set for each substance as measured on the final product and represents the maximum allowable amount of the respective substance which is allowable in a RSL-compliant product. Any reference to the term "Usage Ban" indicates that the substance for which there is a usage ban is prohibited from use but that an acceptable trace amount is allowed up to the designated trace value ("TR"). Any reference to the term "Not Detected" indicates that the substance must not be detected in the final product.

⁴ The test method indicated shall be used by the VF approved laboratory to determine compliance with the RSL. The method's Reporting Limit is provided with designation ("RL").

⁵ For analysis of 4-Aminoazobenzene, use test method EN 14362-3 or GB/T 23344 for textiles and ISO 17234-2.

⁶ The testing laboratory shall report all listed aromatic amines found between the 5 ppm RL and 20 ppm limit value in the final product.

⁷ 3,3'-dichlorobenzidine has been reported to be found when printing using a combination of Pigment Black 7 with either Pigment Orange 13 or Pigment Orange 34. This combination of pigments shall be avoided.

B: Disperse Dyes and Other Dyes

Chemical Substance	CAS Number	Limit Value Final Product (mg/kg)	Test Method		
Disperse Dyes		Not Detected	DIN 54231 ⁸ Units in mg/l [RL=5]		
Disperse Blue 1	2475-45-8				
Disperse Blue 3	2475-46-9				
Disperse Blue 7	3179-90-6				
Disperse Blue 26	3860-63-7				
Disperse Blue 35	12222-75-2				
Disperse Blue 102	12222-97-8				
Disperse Blue 106	12223-01-7				
Disperse Blue 124	61951-51-7				
Disperse Brown 1	23355-64-8				
Disperse Orange 1	2581-69-3				
Disperse Orange 3	730-40-5				
Disperse Orange 11	82-28-0				
Disperse Orange 37/ 59 – 76	12223-33-5 13301-61-6				
Disperse Orange 149	85136-74-9				
Disperse Red 1	2872-52-8				
Disperse Red 11	2872-48-2				
Disperse Red 17	3179-89-3				
Disperse Yellow 1	119-15-3				
Disperse Yellow 3	2832-40-8				
Disperse Yellow 9	6373-73-5				
Disperse Yellow 23	6250-23-3				
Disperse Yellow 39	12236-29-2				
Disperse Yellow 49	54824-37-2				
Other Dyes		Not Detected	DIN 54231 ⁸ Units in mg/l [RL=5]		
Acid Red 26	3761-53-3				
Basic Red 9	569-61-9				
Basic Violet 14	632-99-5				
Direct Black 38	1937-37-7				
Direct Blue 6	2602-46-2				
Direct Red 28	573-58-0				
Direct Brown 95	16071-86-6				
Blue colorant ⁹	Not allocated			1,000 ¹⁰	No test method specified ¹¹

⁸ The result for test method DIN 54231 is reported in milligrams of dye per liter of extract.

⁹ An azo colorant that is a mixture of: disodium(6-(4-anisido)-3-sulfonato-2-(3,5-dinitro-2-oxidophenylazo)-2-naphtholato)(1-(5-chloro-2-oxidophenylazo)-2-naphtholato)chromate(1-) - CAS Number 118685-33-9 and trisodium bis(6-(4-anisidino)-3-sulfonato-2-(3,5-dinitro-2-oxidophenylazo)-1-naphtholato)chromate(1-) – No allocated CAS number. (Blue colorant: CAS Number 'Not allocated', Index number 611-070-00-2, EC number 405-665-4).

¹⁰ European Union REACH regulation (EC) No 1907/2006 and Norway.

¹¹ There is no actual test method existing for this 'Blue colorant'; the lack of Chromium content is used as a 'negative' test method to prove that 'Blue colorant' is not present.

C: Metals

C1: Metal Restrictions for All Base Textile Materials and Fabrics

(including natural, synthetic, leather, surface coatings and paints)

Chemical Substance	CAS Number	Limit Value Final Product (mg/kg)		Test Method
Extractable Metal Content ¹²		Non-Leather	Leather	
Antimony (Sb) ¹³	7440-36-0	30	30	Non-Leather: ISO 105-E04 ICP-MS Leather: ISO 17072-1 for all listed metals ISO 17075 for Cr(VI)
Arsenic (As)	7440-38-2	Usage Ban [TR=0.2]	Usage Ban [TR=0.2]	
Cadmium (Cd)	7440-43-9	Usage Ban [TR=0.1]	Usage Ban [TR=0.1]	
Chromium, Hexavalent Cr(VI)	18540-29-9	N/A	Non Detected [RL=3]	
Chromium (Cr), total	7440-47-3	1	N/A	
Cobalt (Co)	7440-48-4	1	1	
Copper (Cu)	7440-50-8	25	25	
Lead (Pb)	7439-92-1	Usage Ban [TR=0.2]	Usage Ban [TR=0.2]	
Mercury (Hg)	7439-97-6	Usage Ban [TR=0.02]	Usage Ban [TR=0.02]	
Nickel (Ni)	7440-02-0	1	N/A	
Total Metal Content		Non-Leather	Leather	
Cadmium (Cd)	7440-43-9	100		EN 1122 or acid digestion
Lead (Pb)	7439-92-1	90		CPSC-CH-E1002-08 in non-metal CPSC-CH-E1003-09 in paint and surface coating

¹² Extractable Metal Content– the sample is extracted with aqueous solution/acid, and the metal content is determined from the extract.

¹³ On Children’s product (Aged 12 or under), including children’s apparel”, the following substances are prohibited (usage ban): Antimony, Arsenic, Cadmium, Cobalt, Lead Mercury and Benzene. Please consult your VF brand-specific product safety team to determine the appropriate TR values for the Usage ban of Antimony for this particular product category. (New York Albany requirement; January 2016).

C2: Metal Restrictions for All Parts, Metal and Non-Metal

(including sundries, trims, buckles, toys¹⁴, plastic parts, plastic fabrics, surface coatings and paints)

Chemical Substance	CAS Number	Limit Value Final Product (mg/kg)		Test Method
Extractable Metal Content¹²		Children		
Antimony (Sb)	7440-36-0	60		ASTM F963 EN 71-3
Arsenic (As)	7440-38-2	25		
Barium (Ba)	7440-39-3	1,000		
Cadmium (Cd)	7440-43-9	75 ¹⁵		
Chromium (Cr), total	7440-47-3	60		
Lead (Pb)	7439-92-1	90		
Mercury (Hg)	7439-97-6	60		
Selenium (Se)	7782-49-2	500 ¹⁶		
Nickel (Ni) ¹⁷	7440-02-0	Children and Adult		EN 1811 ¹⁸
		0.5 µg/cm ² /week		EN 16128 ¹⁹
Total Metal Content		Children	Adult	
Cadmium (Cd)	7440-43-9	50	100	EN 1122 or acid digestion
Lead (Pb)	7439-92-1	90		ASTM F2853 in paint and surface coating GAFTI Modified CPSC-CH- E1001-08 in metal CPSC-CH-E1002-08 in non-metal CPSC-CH-E1003-09 in paint & surface coating

¹⁴ Toys, toy components and toy materials must be reviewed by VF brand-specific product safety team to determine all appropriate requirements. They are required to meet various chemical requirements and are also subject to pass strict mechanical and product safety testing.

¹⁵ For textiles in toys, the limit for Cadmium has been set to 17 mg/kg; ref. EN 71-3:2013.

¹⁶ For textiles in toys, the limit for Selenium has been set to 460 mg/kg; ref. EN 71-3:2013.

¹⁷ The Nickel release only needs to be tested for those parts that are in direct and prolonged skin contact.

¹⁸ For metallic parts without a surface coating or plating, test in accordance with method EN 1811. For metallic parts with a surface coating or plating, perform EN 12472 then test in accordance with method 1811. The same limit applies regardless of the test method used.

¹⁹ Method EN 16128:2011 is for those parts of spectacle frames and sunglasses intended to come in close and prolonged contact with the skin.

C3: Metal Restrictions for All Jewelry

Chemical Substance	CAS Number	Limit Value Final Product (mg/kg)		Test Method
Extractable Metal Content²⁰		Children and Adult		
Antimony (Sb)	7440-36-0	60		ASTM F963-08 EN 71-3
Arsenic (As)	7440-38-2	25		
Barium (Ba)	7440-39-3	1,000		
Cadmium (Cd)	7440-43-9	75		
Chromium (Cr), total	7440-47-3	60		
Lead (Pb)	7439-92-1	90		
Mercury (Hg)	7439-97-6	60		
Selenium (Se)	7782-49-2	500		
Nickel (Ni), non-pierced ²¹	7440-02-0	0.5 µg/cm ² /week		EN 1811 ²²
Nickel (Ni), pierced ²¹	7440-02-0	0.2 µg/cm ² /week		
Total Metal Content		Children	Adult	
Cadmium (Cd)	7440-43-9	50	75	EN 1122 or acid digestion
Lead (Pb)	7439-92-1	40		ASTM F2853 in paint and surface coating GAFTI Modified CPSC-CH-E1001-08 in metal CPSC-CH-E1002-08 in non-metal CPSC-CH-E1003-09 in paint and surface coating

²⁰ Extractable Metal Content– the sample is extracted with aqueous solution/acid, and the metal content is determined from the extract.

²¹ Test on component level.

²² For metallic parts without a surface coating or plating, test in accordance with method EN 1811. For metallic parts with a surface coating or plating, perform EN 12472 then test in accordance with method 1811. The same limit applies regardless of the test method used.

D: Phthalates

D1: Phthalates Restrictions for All Products

Chemical Substance	CAS Number	Limit Value Final Product (mg/kg)	Test Method
Di(ethylhexyl) phthalate (DEHP)	117-81-7	Usage Ban [TR=500 each phthalate; 1,000 total sum phthalates]	CPSC-CH-C1001-09.03 for all products, except for prints. GAFTI analytical method for CPSC; “Detection and Determination of Phthalates in Prints by GC/LC-MS”
Di-n-octyl phthalate (DNOP)	117-84-0		
Di-iso-butyl phthalate (DIBP)	84-69-5		
Di-iso-nonyl phthalate (DINP)	28553-12-0 68515-48-0		
Di-iso-decyl phthalate (DIDP)	26761-40-0 68515-49-1		
Butyl benzyl phthalate (BBP)	85-68-7		
Dibutyl phthalate (DBP)	84-74-2		
Di-heptyl, nonyl, undecyl phthalate (DHNUP)	68515-42-4		
Di-isoheptyl phthalate (DIHP)	71888-89-6		
Bis(2-methoxyethyl) phthalate (DMEP)	117-82-8		
N-pentyl-iso-pentyl phthalate (NPIPP)	776297-69-9		
1,2-Benzenedicarboxylic acid, dipentylester, branched & linear	84777-06-0		
Di-iso-pentyl phthalate (DIPP)	605-50-5		
Dipentyl phthalate (DnPP or DPENP)	131-18-0		
Dihexyl phthalate (DnHP or DHEXP)	84-75-3		
Other esters of orthophthalic acid	Various CAS numbers	Reporting requirement ²³	

²³ The testing laboratory shall report all found phthalates, not only those restricted by the VF RSL.

D2: Additional Phthalates Restrictions for Toys, Childcare and Children’s products:

Chemical Substance	CAS Number	Limit Value Final Product (mg/kg)	Test Method
Di(ethylhexyl) phthalate (DEHP)	117-81-7	Usage Ban [TR=500] each phthalate; 1,000 total sum phthalates]	CPSC-CH-C1001-09.03 for all products, except for prints. GAFTI analytical method for CPSC; “Detection and Determination of Phthalates in Prints by GC/LC-MS”
Di-n-octyl phthalate (DNOP)	117-84-0		
Di-iso-nonyl phthalate (DINP)	28553-12-0 68515-48-0		
Di-iso-decyl phthalate (DIDP)	26761-40-0 68515-49-1		
Butyl benzyl phthalate (BBP)	85-68-7		
Dibutyl phthalate (DBP)	84-74-2		
Dimethyl phthalate (DMP)	131-11-3		
Diethyl phthalate (DEP)	84-66-2		

E: Auxiliary Substances

Chemical Substance	CAS Number	Limit Value Final Product (mg/kg)	Test Method
Formaldehyde ²⁴	50-00-0	<u>Children:</u> 20 <u>Adults: (with direct skin contact)²⁵:</u> 75 <u>Adults (without direct skin contact)²⁶:</u> 300	<p><u>Textile:</u> ISO 14184-1</p> <p><u>Natural Leather:</u> Products for all markets except China: ISO 17226-1</p> <p><u>Products for China market:</u> GB/T 19941</p>
Perfluorooctane sulfonate (PFOS)	2795-39-3	Usage Ban [TR=1 µg/m ²]	Solvent extraction / LC-MS-MS
Perfluorooctanoic acid (PFOA) Perfluorooctanoic ammonium salt	68141-02-6 3825-26-1	Usage Ban ²⁷ [TR=1 µg/m ²]	Solvent extraction / LC-MS-MS
Dimethylfumarate (DMFu)	624-49-7	Usage Ban [TR=0.1]	<p>Solvent extraction / GC-MS, for confirmation LC-MS</p> <p><u>Footwear Materials & Desiccant Sachets :</u> ISO/TS 16186:2012</p>

²⁴ EXCEPTION: For baby products (age 0 – 36 months) intended for the Japanese market, the formaldehyde concentration must be below an absorbency (A-A₀) limit of 0.05 using JIS L1041-2011, Method A.

²⁵ Direct skin contact: any part of the product (e.g.: collar, cuff, body, sleeves) is in direct prolonged contact with the skin. (e.g.: leather gloves without inner lining) during normal use.

²⁶ Without direct skin contact: during normal use, only a portion of the product may occasionally contact the skin (e.g. leather jacket). The product must have a lining which meet the RSL requirements. Leather products without lining are considered as direct skin contact.

²⁷ VF has adopted the 1 µg/m² PFOA concentration restriction based on Norway's 2014 requirements. VF acknowledges this restriction is the subject of ongoing political and scientific debate leading to frequent revisions. VF's implementation of this PFOA restriction is subject to change and will be implemented on a case-by-case basis. For the most current status, please contact VF at rsl@vfc.com.

F: Organotin Compounds

Chemical Substance	CAS Number	Limit Value Final Product (mg/kg)	Test Method
Dibutyltin (DBT)	1002-53-5	1	Ethanol extraction, ISO 17353 [RL=0.05] <u>Footwear Materials:</u> ISO/TS 16179
Tributyltin (TBT)	56573-85-4	Not Detected	
Triphenyltin (TPhT)	668-34-8		
Diocetyl tin (DOT)	15231-44-4	1,000	
Dibutyltin dichloride (DBTC)	683-18-1		
Bis(tributyltin)oxide (TBTO)	56-35-9		

G: Alkyl Phenols and Alkyl Phenol Ethoxylates (APs and APEOs)

Chemical Substance	CAS Number	Limit Value Final Product (mg/kg)	Test Method
Nonylphenol (NP)	Various CAS numbers	Usage Ban [TR=100]	GC-MS
Octylphenol (OP)	Various CAS numbers		
Nonylphenol ethoxylate (NPEO)	Various CAS numbers	Usage Ban [TR=100] ²⁸	APEO in Textiles - Agreed method of BVCPS, INTERTEK, MTS and SGS
Octylphenol ethoxylate (OPEO)	Various CAS numbers		

²⁸ APEOs and APEO containing preparations are prohibited from use throughout VF's supply chain and manufacturing processes. The RSL limit of 100 mg/kg reflects this prohibition. We acknowledge residual or trace concentrations of APEOs may be found at levels between 100 mg/kg and 500 mg/kg. Such levels do not indicate intentional use of APEOs, however do provide direction for continuous improvement in phasing out all APEO residuals from our supply chain. In such cases where APEOs are found in concentrations between 100 mg/kg and 500 mg/kg, we shall not deem the product as defective, however we will endeavour to reduce such residuals through processes outlined in Section P2 of this RSL.

H: Polycyclic Aromatic Hydrocarbons (PAH)

H1: PAH Restrictions for All Accessible Plastic and Rubber Parts

Chemical Substance	CAS Number	Limit Value Final Product (mg/kg)		Test Method
Benzo[a]pyrene	50-32-8	1 ²⁹ [Each PAH]		Solvent extraction/GC-MS or LC-MS
Benzo[e]pyrene	192-97-2			
Benzo[a]anthracene	56-55-3			
Chrysene	218-01-9			
Benzo[b]fluoranthene	205-99-2			
Benzo[j]fluoranthene	205-82-3			
Benzo[k]fluoranthene	207-08-9			
Dibenzo[a,h]anthracene	53-70-3			
Acenaphthene	83-32-9	10 [Sum of 18 PAHs]		
Acenaphthylene	208-96-8			
Anthracene	120-12-7			
Benzo[ghi]perylene	191-24-2			
Fluoranthene	206-44-0			
Fluorene	86-73-7			
Indeno[1,2,3-cd]pyrene	193-39-5			
Naphthalene	91-20-3			
Phenanthrene	85-01-8			
Pyrene	129-00-0			

H2: PAH Restrictions for Toys and Childcare articles

The PAH concentration limit for toys and childcare articles is 0.5 mg/kg for each individual PAH limited at 1 mg/kg in the table H1 above.

²⁹ Any rubber or plastic components that come into direct as well as prolonged or short-term repetitive contact with the human skin or the oral cavity, under normal or reasonably foreseeable conditions of use.

I: Solvents and Volatile Organic Compounds (VOCs)

Chemical Substance	CAS Number	Limit Value Final Product (mg/kg)	Test Method
Benzene	71-43-2	Usage Ban [TR=5]	Solvent extraction/GC-MS or LC-MS
N,N-Dimethylformamide (DMF)	68-12-2	1,000	
N-Methylpyrrolidone (NMP)	872-50-4	Usage Ban [TR=1,000]	
Tetrachloroethene (Perchloroethylene)	127-18-4	10	
Toluene	108-88-3	Usage Ban [TR=1,000]	
Trichloroethylene (TCE)	79-01-6	50	
1,1,1-Trichloroethane	71-55-6	1,000	
Tetrachloromethane	56-23-5		
Trichloromethane (Chloroform)	67-66-3		
1,1,2-Trichloroethane	79-00-5		
1,1,2,2-Tetrachloroethane	79-34-5		
1,1,1,2-Tetrachloroethane	630-20-6		
Pentachloroethane	76-01-7		
1,1-Dichloroethylene	75-35-4		
Dimethylacetamide (DMAC)	127-19-5		

J: Chlorinated Aromatics

Chemical Substance	CAS Number	Limit Value Final Product (mg/kg)	Test Method
Pentachlorophenol (PCP)	87-86-5	Not Detected	§64 LFGB 82.02.8 ³⁰ [RL=0.5]
Tetrachlorophenol (TeCP)	25167-83-3		
Chlorinated benzenes ³¹	Various CAS numbers	Usage Ban [TR=20]	Solvent extraction/GC-MS DIN 54232
Chlorinated toluenes	Various CAS numbers	Usage Ban [TR=4]	
Trichlorophenols	Various CAS Numbers	Reporting requirement ³²	

³⁰ §64 LFGB 82.02.8 is the test method for Textiles. PCP and TeCP analysis on leather substrates requires test method ISO 17070.

³¹ Chlorinated benzenes include monochlorobenzene (108-90-7), all isomers of di-, tri-, and tetra-chlorobenzenes, pentachlorobenzene (608-93-5), and hexachlorobenzene (118-74-1).

³² When tests are performed for PCP and TeCP, the lab should report all detected Trichlorophenols: 2,4,6-trichlorophenol (88-06-2), 2,4,5-trichlorophenol (95-95-4), 2,3,4-trichlorophenol (15950-66-0), 2,3,5-trichlorophenol (933-78-8) and 3,4,5-trichlorophenol (609-19-8)

K: Flame Retardants

K1: Flame Retardant Restrictions For All Products

Chemical Substance	CAS Number	Limit Value Final Product (mg/kg)	Test Method
Chlorinated paraffins (C10-C13)	85535-84-8	Usage Ban [TR=5]	Solvent extraction / GC-MS
Hexabromocyclododecane (HBCDD)	25637-99-4		
Polybrominated biphenyls (PBBs)	59536-65-1		
Penta-bromodiphenyl ether (pentaBDE)	32534-81-9		
Octa-bromodiphenyl ether (octaBDE)	32536-52-0		
Deca-bromodiphenyl ether (decaBDE)	1163-19-5		
Tri-o-cresyl phosphate	78-30-8		
Tris (2,3-dibromopropyl) phosphate (TRIS)	126-72-7		
Bis (2,3-dibromopropyl) phosphate	5412-25-9		
Tris(2-chloroethyl) phosphate (TCEP)	115-96-8		
Tris (1,3-dichloro-2-propyl) phosphate (TDCPP)	13674-87-8		
Tris (1-aziridinyl)-phosphate oxide (TEPA)	545-55-1	Usage Ban [TR=5]	KOH digestion / HS analysis of aziridine fragment by GC-MS
Tris (2-chloroethyl) phosphate (TCPP)	13674-84-5	Reporting requirement ³³	

³³ The testing laboratory shall report the presence of this substance when testing for flame retardants.

K2: Flame Retardant Restrictions foam-cushioned pads for children and infants

Chemical Substance	CAS Number	Limit Value Final Product (mg/kg)	Test Method
Tris (1,3-dichloro-2-propyl) phosphate (TDCPP)	13674-87-8	Usage Ban [TR=5]	Solvent extraction / GC-MS
Tris(2-chloroethyl) phosphate (TCEP)	115-96-8		
Tris (2-chloroethyl) phosphate (TCPP)	13674-84-5		
2-Ethylhexyl 2,3,4,5-Tetrabromobenzoate (TBB)	183658-27-7		
Bis (2-ethylhexyl)-2,3,4,5-tetrabromophthalate (TBPH)	26040-51-7		
Tri Phenyl phosphate (TPP)	115-86-6		
Penta-bromodiphenyl ether (pentaBDE)	32534-81-9		
Octa-bromodiphenyl ether (octaBDE)	32536-52-0		
Deca-bromodiphenyl ether (decaBDE)	1163-19-5		
2,2-Bis(Chloromethyl) Trimethylene Bis[Bis(2-Chloromethyl) phosphate] (V6)	38051-10-4		
4-(tert-butyl)phenyl diphenyl phosphate (MDPP)	56803-37-3		
di-tert-butylphenyl phenyl phosphate (DBPP)	65652-41-7		
Tris (4-tert-butylphenyl) phosphate (TBPP)	78-33-1 28777-70-0		
Other Flame Retardants	Various CAS numbers	Reporting requirement	

L: Restrictions on Packaging

In numerous jurisdictions where VF operates, VF must comply with various toxics in packaging requirements. All packages, packaging components and packaged retail-ready products supplied to VF Corporation or otherwise used in the delivery of VF Products shall be in compliance with the following packaging restrictions.

A signed RSL Compliance Agreement serves as the packaging supplier's certification and the VF Product supplier's certification that associated packaging materials are in compliance with the VF packaging restrictions.

Chemical Substance	CAS Number	Limit Value Final Product (mg/kg)	Test Method
Cadmium (Cd)	7440-43-9	Usage Ban [TR=100; total sum] ³⁴	CEN/TR 13695-1
Lead (Pb)	7439-92-1		
Chromium, Hexavalent Cr(VI)	18540-29-9		
Mercury (Hg)	7439-97-6		
PVC	9002-86-2	Usage Ban	Beilstein Test for screening, FTIR for confirmation
Dimethylfumarate (DMFu)	624-49-7	Usage Ban [TR=0.1]	Solvent extraction/GC-MS, for confirmation LC-MS

M: RoHS³⁵ – Electrical and Electronic Equipment

Chemical Substance	CAS Number	Limit Value Final Product (mg/kg)	Test Method
Cadmium (Cd)	7440-43-9	100	111/54/CDV: IEC 62321, Ed. 3
Chromium, Hexavalent Cr(VI)	18540-29-9	1,000	
Lead (Pb)	7439-92-1		
Mercury (Hg)	7439-97-6		
Polybrominated biphenyls (PBB)	59536-65-1		
Polybrominated diphenyl ethers (PBDE)	Various CAS numbers		

³⁴ Intentional use prohibited; limit applies to incidental concentrations only.

³⁵ RoHS refers to the Restriction of the use of certain Hazardous Substances in electrical and electronic equipment. RoHS applies to electrical and electronic products. The limits listed are by weight of homogeneous material (single material that is separated mechanically).

N: Food Contact Materials

All food contact products and materials supplied to VF must comply with food contact requirements in the countries where the VF products are sold or marketed. Suppliers of products and materials intended for food contact applications agree to comply with applicable food contact regulations (such as in the US, EU or China). The substances listed below represent additional restrictions.

Chemical Substance	CAS Number	Limit Value Final Product (mg/kg)	Test Method
Bisphenol A (BPA)	80-05-7	Usage Ban [TR=0.1]	Solvent extraction / GC-MS
PVC	9002-86-2	Usage Ban	Beilstein Test for screening, FTIR for confirmation
Vinyl Chloride	75-01-4	1	GC, headspace method
Di(ethylhexyl) phthalate (DEHP)	117-81-7	Usage Ban [TR=500 each phthalate; 1,000 total sum phthalates]	CPSC-CH-C1001-09
Di-n-octyl phthalate (DNOP)	117-84-0		
Di-iso-butyl phthalate (DIBP)	84-69-5		
Di-iso-nonyl phthalate (DINP)	28553-12-0 68515-48-8		
Di-iso-decyl phthalate (DIDP)	26761-40-0 68515-49-1		
Butyl benzyl phthalate (BBP)	85-68-7		
Dibutyl phthalate (DBP)	84-74-2		
Di-heptyl, nonyl, undecyl phthalate (DHNUP)	68515-42-4		
Di-isoheptyl phthalate (DIHP)	71888-89-6		
Bis(2-methoxyethyl) phthalate (DMEP)	117-82-8		
N-pentyl-iso-pentyl phthalate (NPIPP)	776297-69-9		
1,2-Benzenedicarboxylic acid, dipentylester, branched & linear	84777-06-0		
Di-iso-pentyl phthalate (DIPP)	605-50-5		
Dipentyl phthalate (DPP)	131-18-0		
Dihexyl phthalate (DHP)	84-75-3		
Other esters of orthophthalic acid	Various CAS numbers	Reporting requirement ³⁶	

³⁶ The testing laboratory shall report all found phthalates, not only those restricted by the VF RSL.

O: N-Nitrosamines – Shoe Sole Materials and Toys

Chemical Substance	CAS Number	Limit Value Final Product (mg/kg)	Test Method
N-Nitrosodimethylamine	62-75-9	Usage Ban [TR=0.5]	GB/T24153 ³⁷
N-nitrosodiethylamine	55-18-5		
N-nitrosodipropylamine	621-64-7		
N-nitrosodibutylamine	924-16-3		
N-nitrosopiperidine	100-75-4		
N-nitrosopyrrolidine	930-55-2		
N-nitrosomorpholine	59-89-2		
N-nitroso-N-methylaniline	614-00-6		
N-nitroso-N-ethylaniline	612-64-6		

P: Phase-Out and Unintentionally Present Substances

P1: Phase-Out of Polyvinyl Chloride (PVC)

VF prefers that products do not contain PVC, however we acknowledge certain challenges may prevent the immediate cessation of PVC use. VF supports efforts to find acceptable alternatives to PVC use in all products, with the ultimate objective being a comprehensive prohibition on all PVC use. At this time, PVC is prohibited from use in all packaging and food contact materials. Many product lines have successfully eliminated all PVC use, and in many specific products, PVC use is formally prohibited.

P2: Prohibition of Alkyl Phenol Ethoxylates throughout VF's Supply Chain

APEOs are a class of chemical substances that include nonylphenol ethoxylates (NPE or NPEOs) and octylphenol ethoxylates (OPE or OPEOs). APEOs are non-ionic surfactants commonly used as ingredients in chemical preparations such as detergents, degreasers, scouring agents, wetting agents, dyes, printing pastes, and spinning oils. APEOs and APEO containing preparations are prohibited from use throughout VF's supply chain and manufacturing processes. Section G of this RSL details the product restrictions for residual APEO concentrations.

VF recommends its suppliers take the following actions to ensure APEOs are not used in their production:

1. If you are performing cut and sew operations, pass this along to your material suppliers and dye-houses.
2. If you are using chemical formulations, ask your chemical suppliers if the chemical preparations you currently use for apparel or footwear production or general cleaning are APEO-free.
3. If you are using chemical preparations that are not APEO-free, stop using those chemical preparations and identify APEO-free alternatives. There are many ways you can find replacements, including (but not limited to):
 - a. Contacting your current chemical supplier and asking for APEO-free formulations.
 - b. Using the CleanGredients® database for surfactants to find substitutions for APEO surfactants used in detergents, <http://www.cleangredients.org/>

³⁷ GB25038-2010 "Rubber shoes healthy and safety specification" and GB25036-2010 "Children's Canvas Rubber Footwear".

- c. Using products and processes reviewed under the bluesign® process and listed on the bluesign® bluefinder, <http://www.bluesign.com/>
- d. Using chemicals that meet the Global Organic Textiles Standard (GOTS).
- e. Using chemical preparations certified under the OEKO-TEX® Eco-Passport system.

Regardless of the certifications, ask your chemical supplier to confirm that ALL products are APEO-free. We acknowledge APEOs may be present in residual concentrations in your chemical preparations, and may not be currently communicated to you as present in the chemical preparations you purchase. Initiating this dialogue with your chemical suppliers is the only way to ensure the chemical preparations you purchase are indeed 100% APEO-free.

P3: Reduction of unintended PFOA traces

VF's requires all products manufactured with fluorochemicals to minimize, to the greatest extent possible, residual concentrations of unintended PFOA and PFOA-precursors. We expect the PFOA concentration on all fluorochemical treated products to be below 1 µg/m².

Section 3: Substances Which are Not Likely Found in Products

A: Dioxins and Furans

Chemical Substance	CAS Number	Limit Value Final Product (mg/kg)	Test Method
Group 1			
2,3,7,8-Tetrachlorodibenzo- <i>p</i> -dioxin	1746-01-6	Unavoidable traces acceptable up to 1 µg/kg for Group 1	U.S. EPA Method 8290
1,2,3,7,8-Pentachloro-dibenzo- <i>p</i> -dioxin	40321-76-4		
2,3,7,8-Tetrachlorodibenzofuran	51207-31-9		
2,3,4,7,8-Pentachlorodibenzofuran	57117-31-4		
Group 2			
1,2,3,4,7,8-Hexachloro-dibenzo- <i>p</i> -dioxin	39227-28-6	Unavoidable traces acceptable up to 5 µg/kg for sum of Groups 1 & 2	U.S. EPA Method 8290
1,2,3,7,8,9-Hexachloro-dibenzo- <i>p</i> -dioxin	19408-74-3		
1,2,3,6,7,8-Hexachloro-dibenzo- <i>p</i> -dioxin	57653-85-7		
1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6		
1,2,3,4,7,8-Hexachlorodibenzofuran	70648-26-9		
1,2,3,7,8,9-Hexachlorodibenzofuran	72918-21-9		
1,2,3,6,7,8-Hexachlorodibenzofuran	57117-44-9		
2,3,4,6,7,8-Hexachlorodibenzofuran	60851-34-5		
Group 3			
1,2,3,4,6,7,8-Heptachloro-dibenzo- <i>p</i> -dioxin	35822-46-9	Unavoidable traces acceptable up to 100 µg/kg for sum of Groups 1, 2, and 3	U.S. EPA Method 8290
1,2,3,4,6,7,8,9-Octachlorodibenzo- <i>p</i> -dioxin	3268-87-9		
1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4		
1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7		
1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001-02-0		
Group 4			
2,3,7,8-Tetrabromodibenzo- <i>p</i> -dioxin	50585-41-6	Unavoidable traces acceptable up to 1 µg/kg for Group 4	U.S. EPA Method 8290
1,2,3,7,8-Pentabromo-dibenzo- <i>p</i> -dioxin	109333-34-8		
2,3,7,8-Tetrabromodibenzofuran	67933-57-7		
2,3,4,7,8-Pentabromodibenzofuran	131166-92-2		
Group 5			
1,2,3,4,7,8-Hexabromo-dibenzo- <i>p</i> -dioxin	110999-44-5	Unavoidable traces acceptable up to 5 µg/kg for sum of Groups 4 & 5	U.S. EPA Method 8290
1,2,3,7,8,9-Hexabromo-dibenzo- <i>p</i> -dioxin	110999-46-7		
1,2,3,6,7,8-Hexabromo-dibenzo- <i>p</i> -dioxin	110999-45-6		
1,2,3,7,8-Pentabromodibenzofuran	107555-93-1		

B: Asbestos

Chemical Substance	CAS Number	Limit Value Final Product (mg/kg)	Test Method
All asbestos fibers, including, but not limited to:		Usage Ban	U.S. EPA/600/R-93/116
Actinolite	77536-66-4		
Amosite	12172-73-5		
Anthophyllite	77536-67-5		
Chrysotile	12001-29-5		
Crocidolite	132207-33-1		
Tremolite	14567-73-8 77536-68-6		

C: Pesticides

Chemical Substance	CAS Number	Limit Value Final Product (mg/kg)	Test Method
Aldicarb	116-06-3	Not Detected	U.S. EPA Methods: 8081B / 8151A / 8141B [RL=0.5]
Aldrin	309-00-2		
Azinophosmethyl	86-50-0		
Azinophosethyl	2642-71-9		
Bromophos-ethyl	4824-78-6		
Captafol	2425-06-1		
Carbaryl	63-25-2		
Chlordane	57-74-9		
Chlordimeform	6164-98-3 19750-95-9		
Chlorfenvinphos	470-90-6		
Coumaphos	56-72-4		
Cyfluthrin	68359-37-5		
Cyhalothrin	91465-08-6		
Cypermethrin	52315-07-8		
DEF	78-48-8		
Deltamethrin	52918-63-5		
1,2-Dibromo-3-Chloropropane (DBCP)	96-12-8		
<i>p,p</i> -Dichlorodiphenyl-dichloroethane (<i>p,p</i> -DDD)	72-54-8		
<i>o,p</i> -Dichlorodiphenyl-dichloroethane (<i>o,p</i> -DDD)	53-19-0		
<i>p,p</i> -Dichlorodiphenyl- dichloroethylene (<i>p,p</i> -DDE)	72-55-9		
<i>o,p</i> -Dichlorodiphenyl- dichloroethylene (<i>o,p</i> -DDE)	3424-82-6		

Chemical Substance	CAS Number	Limit Value Final Product (mg/kg)	Test Method
<i>p,p</i> -Dichlorodiphenyl-trichloroethane (<i>p,p</i> -DDT)	50-29-3	Not Detected	U.S. EPA Methods: 8081B / 8151A / 8141B [RL=0.5]
<i>o,p</i> -Dichlorodiphenyl-trichloroethane (<i>o,p</i> -DDT)	789-02-6		
2,4-Dichlorophenoxy-acetic acid, its salts and compounds (2,4-D)	94-75-7		
Diazinon	333-41-5		
Dichlorprop	120-36-2		
Dicrotophos	141-66-2		
Dicofol	115-32-2		
Dieldrin	60-57-1		
Dimethoate	60-51-5		
Dinoseb and salts	88-85-7		
Endosulfan , including alpha (959-98-8) and beta (33213-65-9)	115-29-7		
Endrine	72-20-8		
Ethylene Dibromide (EDB)	106-93-4		
Esfenvalerate	66230-04-4		
Fenvalerate	51630-58-1		
Hexachlorobenzene	118-74-1		
Hexachlorocyclohexane (HCH), all isomers ³⁸	608-73-1		
Heptachlor	76-44-8		
Heptachlor epoxide	1024-57-3		
Isodrin	465-73-6		
Kelevan	4234-79-1		
Kepone	143-50-0		
Malathion	121-75-5		
MCPA	94-74-6		
MCPB	94-81-5		
Mecoprop	93-65-2 7085-19-0		
Metamidophos	10265-92-6		
Methoxychlor	72-43-5		
Methyl Parathion	298-00-0		
Mirex	2385-85-5		
Monocrotophos	6923-22-4		

³⁸ All isomers of HCH, including alpha (319-84-6), beta (319-85-7), delta (319-86-8), epsilon (6108-10-7), and gamma (lindane, 58-89-9).

Chemical Substance	CAS Number	Limit Value Final Product (mg/kg)	Test Method
Paraquat	1910-42-5	Not Detected	U.S. EPA Methods: 8081B / 8151A / 8141B [RL=0.5]
Parathion	56-38-2		
Perthane	72-56-0		
Phosdrin/Mevinphos	7786-34-7		
Propethamphos	31218-83-4		
Profenophos	41198-08-7		
Quinalphos	13593-03-8		
Quintozene	82-68-8		
Strobane	8001-50-1		
Telodrin	297-78-9		
Timiperone (DTTB)	57648-21-2		
Toxaphene	8001-35-2		
2,4,5-Trichlorophenoxyacetic acid (2,4,5-T), salts, compounds	93-76-5		
2-(2,4,5-Trichlorophenoxy) propionic acid, salts, compounds	93-72-1		
Trifluralin	1582-09-8		

D: Other Organic Chemicals

Chemical Substance	CAS Number	Limit Value Final Product (mg/kg)	Test Method
Halogenated biphenyls, including: <ul style="list-style-type: none"> Polychlorinated biphenyl (PCB) 	1336-36-3 53469-21-9	Usage Ban [TR=1]	Solvent extraction / GC-MS
Halogenated diarylalkanes	Various CAS numbers		
Halogenated naphthalenes	Various CAS numbers		
Halogenated terphenyls, including: <ul style="list-style-type: none"> Polychlorinated terphenyl (PCT) 	Various CAS numbers		
Halogenated diphenyl methanes, including: <ul style="list-style-type: none"> Monomethyl-dibromo-diphenyl methane³⁹ Monomethyl-dichloro-diphenyl methane⁴⁰ Monomethyl-tetrachloro-diphenyl methane⁴¹ 	99688-47-8		
	81161-70-8		
	76253-60-6		

³⁹ Also DBBT.

⁴⁰ Also Ugilec 121 or Ugilec 21.

⁴¹ Also Ugilec 141.

Section 4: Air and Gas Filled Products

Fluorinated greenhouse gases and ozone depleting substances are prohibited from use in the air space in all products. They must not be detectable when tested by GC/MS at a detection level of 0.1 mg/kg.

A: Fluorinated greenhouse gases⁴²

Chemical Substance	CAS Number	Chemical Substance	CAS Number
Sulfur hexafluoride - SF ₆	2551-62-4	Perfluorocarbons (PFCs):	
Hydrofluorocarbons (HFCs):		Perfluoromethane - CF ₄	75-73-0
HFC-23 - CHF ₃	75-46-7	Perfluoroethane - C ₂ F ₆	76-16-4
HFC-32 - CH ₂ F ₂	75-10-5	Perfluoropropane - C ₃ F ₈	76-19-7
HFC-41 - CH ₃ F	593-53-3	Perfluorobutane - C ₄ F ₁₀	355-25-9
HFC-43-10mee - C ₅ H ₂ F ₁₀	138495-42-8	Perfluoropentane - C ₅ F ₁₂	678-26-2
HFC-125 - C ₂ HF ₅	354-33-6	Perfluorohaxane - C ₆ F ₁₄	355-42-0
HFC-134 - C ₂ H ₂ F ₄	359-35-3	Perfluorocyclobutane -C- C ₄ F ₈	115-25-3
HFC-134a - CH ₂ FCF ₃	811-97-2		
HFC-152a - C ₂ H ₄ F ₂	75-37-6		
HFC-143 - C ₂ H ₃ F ₃	420-46-2		
HFC-143a - C ₂ H ₃ F ₃	470-46-6		
HFC-227ea - C ₃ HF ₇	431-89-0		
HFC-236cb - CH ₂ FCF ₂ CF ₃	677-56-5		
HFC-236ea - CHF ₂ CHF ₂ CF ₃	431-63-0		
HFC-236fa - C ₃ H ₂ F ₆	690-39-1		
HFC-245ca - C ₃ H ₃ F ₅	679-86-7		
HFC-245fa - CHF ₂ CH ₂ CF ₃	460-73-1		
HFC-365mfc - CF ₃ CH ₂ CF ₂ CH ₃	406-58-6		

B: Class I Ozone depleting substances⁴³

B1: Group I:

Chemical Substance	CAS Number	Chemical Substance	CAS Number	Chemical Substance	CAS Number
CFCl ₃	75-69-4	C ₂ F ₃ Cl ₃	76-13-1	C ₂ F ₅ Cl	76-15-3
CF ₂ Cl ₂	75-71-8	C ₂ F ₄ Cl ₂	76-14-2		

⁴² As listed in Regulation (EC) No 842/2006 of the European Parliament and of the Council of 17 May 2006 on certain fluorinated greenhouse gases.

⁴³ <http://www.epa.gov/ozone/science/ods/classone.html>; classification U.S. Environmental Protection Agency.

B2: Group II:

Chemical Substance	CAS Number	Chemical Substance	CAS Number	Chemical Substance	CAS Number
CF ₂ ClBr	353-59-3	CF ₃ Br	75-63-8	C ₂ F ₄ Br ₂	124-73-2

B3: Group III:

Chemical Substance	CAS Number	Chemical Substance	CAS Number	Chemical Substance	CAS Number
CF ₃ Cl	75-72-9	C ₃ F ₂ Cl ₆	3182-26-1	C ₃ F ₆ Cl ₂	661-97-2
C ₂ FCl ₅	354-56-3	C ₃ F ₃ Cl ₅	2354-06-5	C ₃ F ₇ Cl	422-86-6
C ₂ F ₂ Cl ₄	76-12-0	C ₃ F ₄ Cl ₄	29255-31-0		
C ₃ FCl ₇	422-78-6	C ₃ F ₅ Cl ₃	4259-43-2		

B4: Group IV:

Chemical Substance	CAS Number
CCl ₄	56-23-5

B5: Group V:

Chemical Substance	CAS Number
C ₂ H ₃ Cl ₃	71-55-6

B6: Group VI:

Chemical Substance	CAS Number
CH ₃ Br	74-83-9

B7: Group VII:

Chemical Substance	Chemical Substance	Chemical Substance	Chemical Substance	Chemical Substance
CHBr ₂	C ₂ H ₂ FBr ₃	C ₃ HF ₂ Br ₅	C ₃ H ₂ F ₄ Br ₂	C ₃ H ₄ F ₂ Br ₂
CHF ₂ Br	C ₂ H ₂ F ₂ Br ₂	C ₃ HF ₃ Br ₄	C ₃ H ₂ F ₅ Br	C ₃ H ₄ F ₃ Br
CH ₂ FBr	C ₂ H ₂ F ₃ Br	C ₃ HF ₄ Br ₃	C ₃ H ₃ FBr ₄	C ₃ H ₅ FBr ₂
C ₂ HFBr ₄	C ₂ H ₃ FBr ₂	C ₃ HF ₅ Br ₂	C ₃ H ₃ F ₂ Br ₃	C ₃ H ₅ F ₂ Br
C ₂ HF ₂ Br ₃	C ₂ H ₃ F ₂ Br	C ₃ HF ₆ Br	C ₃ H ₃ F ₃ Br ₂	C ₃ H ₆ FBr
C ₂ HF ₃ Br ₂	C ₂ H ₄ FBr	C ₃ H ₂ F ₂ Br ₄	C ₃ H ₃ F ₄ Br	
C ₂ HF ₄ Br	C ₃ HFBr ₆	C ₃ H ₂ F ₃ Br ₃	C ₃ H ₄ FBr ₃	

B8: Group VIII:

Chemical Substance	CAS Number
CH ₂ BrCl	74-97-5

C: Class II Ozone depleting substances⁴⁴

Chemical Substance	CAS Number	Chemical Substance	CAS Number	Chemical Substance	CAS Number
CHCl ₂	75-43-4	C ₃ HFCI ₆	422-26-4	C ₃ H ₃ FCI ₄	666-27-3
CHF ₂ Cl	75-45-6	C ₃ HF ₂ Cl ₅	422-49-1	C ₃ H ₃ F ₂ Cl ₃	460-63-9
CH ₂ FCI	593-70-4	C ₃ HF ₃ Cl ₄	422-52-6	C ₃ H ₃ F ₃ Cl ₂	460-69-5
C ₂ HFCl ₄	354-14-3	C ₃ HF ₄ Cl ₃	422-54-8	C ₃ H ₃ F ₄ Cl	134190-50-4
C ₂ HF ₂ Cl ₃	354-21-2	C ₃ HF ₅ Cl ₂	422-56-0	C ₃ H ₄ FCI ₃	421-41-0
C ₂ HF ₃ Cl ₂	306-83-2	C ₃ HF ₅ Cl ₂	507-55-1	C ₃ H ₄ F ₂ Cl ₂	819-00-1
C ₂ HF ₄ Cl	2837-89-0	C ₃ HF ₆ Cl	431-87-8	C ₃ H ₄ F ₃ Cl	460-35-5
C ₂ H ₂ FCI ₃	359-28-4	C ₃ H ₂ FCI ₅	421-94-3	C ₃ H ₅ FCI ₂	420-97-3
C ₂ H ₂ F ₂ Cl ₂	1649-08-7	C ₃ H ₂ F ₂ Cl ₄	460-89-9	C ₃ H ₅ F ₂ Cl	421-02-3
C ₂ H ₂ F ₃ Cl	75-88-7	C ₃ H ₂ F ₃ Cl ₃	7125-84-0	C ₃ H ₆ FCI	430-55-7
C ₂ H ₃ FCI ₂	1717-00-6	C ₃ H ₂ F ₄ Cl ₂	425-94-5		
C ₂ H ₃ F ₂ Cl	75-68-3	C ₃ H ₂ F ₅ Cl	460-92-4		

⁴⁴ <http://www.epa.gov/ozone/science/ods/classtwo.html>; classification U.S. Environmental Protection Agency.

Section 5: Liquid Filled Products

Products containing any liquid, gel or other liquid-type substance must meet the following restrictions:

1. Hazardous liquids shall not be used as the filling liquid in any liquid filled product. Hazardous liquids are those which are classified as toxic (acute or chronic), carcinogenic, reproductive toxic, flammable, explosive, irritants or sensitizers.
2. Bacteria growth must not occur. The following limits apply to the liquid of all liquid filled products.

Bacteria	Limit Value
Staphylococcus aureus	No contamination (<500 CFU/g or CFU/ml)
Escherichia coli (E-coli)	
Pseudomonas aeruginosa	
Salmonella	
All other bacteria	1,000 CFU/g or CFU/ml (total)

Section 6: REACH–EU’s Regulation Concerning the Registration, Evaluation, Authorization and Restriction of Chemicals

A: REACH–European Regulation No 1907/2006

REACH is the comprehensive regulatory framework for chemicals (including consumer products) in the European Union (EU). It is intended to improve consumer safety and environmental protection while enhancing competitiveness, by improving knowledge and transparency along the value chains that involve chemicals.

REACH is regulated by the EU Regulation No 1907/2006. It is a European law applying to individuals, particular authorities and companies. In spite of what many people think, REACH does not only apply on Substances, but also on Preparations and on Articles.

- **Substances** are defined as pure chemicals.
- **Preparations** are defined as mixtures of substances.
- **Articles** are defined by their geometrical form rather than the chemical/ physical properties of the substance.

There are specific provisions in REACH related to:

- **Substances** in Articles.
- **Intended Release** of Substances contained in Article.

The Basic Principle of REACH is that all chemical substances – pure, in preparations and/or in articles – are treated the same way. Import, usage and selling in Europe are only allowed for those substances for which adequate chemical information is available. **“No data, No Market!”**

B: Ownership and Key Elements of REACH

The central part of the REACH administration is the European Chemical Agency (ECHA) located in Helsinki, Finland. The ECHA manages the **Registration, Evaluation, Authorization** and the **Restriction** of the **Chemical substances**.

- **Registration** = any new substance placed on the EU market in excess of 1 ton/year.
- **Evaluation** = review of information submitted in the dossier of each registered substance.

Authorization or Restriction procedures will be applied by the ECHA on those substances that are found to be particularly hazardous by them according certain.

- **Authorization** = allowing hazardous substances in strictly defined applications only. Outside the Registration process, EU member states may suggest candidate **Substances of Very High Concern** (SVHC) for authorization or restriction by the ECHA (see also REACH Annex XIV and the Candidate SVHC list).
- **Restriction of Chemicals** = substances that are banned from their use in certain applications or restricted, having maximum limits (see also REACH Annex XVII).

C: Obligations under REACH

A company's obligations under REACH depend strongly on its role in the value chain and its particular business setup. There are 4 basic roles, each having its own obligations.

Manufacturers or Importers of Chemicals are only allowed to market (pre-) registered substances in the EU. They have to register any substances with the ECHA, as soon as they pass the 1 ton/year limit. They also have an information duty to their downstream users and customers. This involves providing them essential safety information under the form of completed Material Safety Data Sheets (MSDS), applying Common Labeling Practice (CLP) and when applicable, communicating any content of SVHC's above the 0.1% (w/w) in their chemicals.

Formulators of Chemicals, mixing substances to be marketed in the EU, need to make sure that every single one of the substances used are (pre-) registered with the ECHA by the Manufacturers or Importers. They are required to take adequate precautions when handling hazardous substances, to keep all the MSDS's updated and current and when their preparations do contain SVHC's or candidate SVHC's in a concentration above 0.1% (w/w), they also have an information duty towards their business customers, without being asked.

Manufacturers or Importers of Articles, Brands have the duty to inform their business customers in the EU if their articles contain (candidate) SVHC's in levels above 0.1% (w/w). They are obliged to do this without being asked for such information. Towards the ECHA, there is an additional notification duty in those cases where those particular SVHC's would exceed the value of 1 ton/year, via that particular article import. Towards individual end consumers, there is an obligation to respond within 45 days to questions on the presence of SVHC's above the 0.1% (w/w) threshold level, but only when being asked.

Retailers are also required to respond within 45 days to all questions from individual consumers on the presence of SVHC's above the 0.1% (w/w) threshold value when being asked. If your supplier informed you that some of his products do contain more than 0.1% SVHC's, you may also need to pass on the adequate safety information to the end consumer upon request.

The information above is by no means exhaustive, and does not replace official or professional advice on this matter. More information on the above can be found on the regulation's section of the ECHA's website (<http://echa.europa.eu/web/guest/regulations>).

D: Substances of Very High Concern

Substances of Very High Concern⁴⁵ (SVHC) are the most hazardous substances according to REACH. Article 57 of REACH states their criteria. All SVHC's are listed in 'Candidate' list, being proposed by either the European Commission or the EU Member states. The SVHC list is called the Candidate list, because from the moment onwards a substance is listed, it becomes a candidate for Authorization.

⁴⁵ Substances of Very High Concern (SVHC) are defined in article 57 of the Regulation (EC) No 1907/2006 and include substances which are CMR1, CMR 2, PBT or vPvB or identified, on a case-by-case basis, from scientific evidence as causing probable serious effects to human health or the environment of an equivalent level of concern as those mentioned before. <http://www.echa.europa.eu/proposals-to-identify-substances-of-very-high-concern>

Of particular note for REACH is the speed at which new substances may become listed as a SVHC. To ensure all products supplied to VF comply with REACH at the time of market, each supplier is obligated to track and monitor all SVHC's in their supply chain and to keep up to date with official candidate list on the ECHA's website (<http://echa.europa.eu/web/guest/candidate-list-table>), where all regular updates are posted.

Suppliers shall map each step in their supply chains, including the sourcing and processing of raw materials, parts, chemicals and other product ingredients, in order to be able to immediately inform VF of all cases where a substance listed in the candidate list is present in the product at or above a 0.1% concentration, by weight.

The VF Focus List highlights those SVHC's from the official candidate lists that are not directly covered under Section 1 of the 2015 VF RSL and that are known to be used in textile applications and/or being linked – directly or indirectly - to the textile chemical industry. This list is intended to be an additional guideline for our suppliers and contractors, helping them to focus on those parts of their supply chains where some SVHC's could possibly be encountered and where appropriate testing protocols could be relevant. The reduced number of SVHC's in the focus list, do not exempt by any means the supply chain tracking and monitoring requirements needed for all not mentioned SVHC's.

D1: VF Focus List

Reference Number ⁴⁶	Chemical substance	CAS Number	Textile Application
<i>28/10/2008⁴⁷ - 15 SVHC's published / Total sum to date = 15</i>			
1	Anthracene	120-12-7	PAH in mineral oil
2	4,4'- Diaminodiphenylmethane (MDA)	101-77-9	Residue polyurethane production
3	Dibutyl phthalate (DBP)	84-74-2	Plasticizer
4	Diarsenic pentaoxide	1303-28-2	In dyes
6	Sodium dichromate	7789-12-0 10588-01-9	Dye for leather
7	5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	81-15-2	Synthetic musk
8	Bis (2-ethylhexyl)phthalate (DEHP)	117-81-7	Plasticizer
9	Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified	25637-99-4 3194-55-6	Flame retardant
10	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	85535-84-8	Flame retardant
14	Butyl benzyl phthalate (BBP)	85-68-7	Plasticizer

⁴⁶ Internal reference number to the official SVHC list.

⁴⁷ The inclusion date of the SVHC's publication in the official candidate list on the ECHA's website.

Reference Number	Chemical substance	CAS Number	Textile Application
13/01/2010 – 11 SVHC's published / Total sum to date = 26			
15	Tris(2-chloroethyl)phosphate	115-96-8	Flame retardant and plasticizer. Used in rigid and flexible polyurethane and polyisocyanurate foams, carpet backing, flame laminated and rebonded flexible foam, flame retardant coatings, most classes of thermosets and adhesives
16	Lead chromate molybdate sulphate red (C.I. Pigment Red 104)	12656-85-8	Textile printing, textile pigments in coatings
17	2,4-Dinitrotoluene	121-14-2	Intermediates in the manufacture of dyestuffs, manufacture of azo-dyes and PU foam
18	Lead chromate	7758-97-6	Manufacture of pigments and dyes
19	Diisobutyl phthalate	84-69-5	Plasticizer
20	Lead sulfochromate yellow (C.I. Pigment Yellow 34)	1344-37-2	Textile printing, textile pigments in coatings
26	Pitch, coal tar, high temp.	65996-93-2	Dyestuff synthesis
30/03/2010 – 1 SVHC published / Total sum to date = 27			
27	Acrylamide	79-06-1	Monomer residue polyacrylamide
18/06/2010 – 8 SVHC published / Total sum to date = 35			
28	Trichloroethylene	79-01-6	Degrease wool, textile desizing scouring
29	Disodium tetraborate, anhydrous	1303-96-4 1330-43-4 12179-04-3	Detergents, precursor perborate, stabilizer enzymes with liquid/laundry detergents
30	Boric acid	10043-35-3 11113-50-1	Preservatives for textile, flame retardants, liquid laundry products, detergents, cleaners, stain removers, other decontamination agents

Reference Number	Chemical substance	CAS Number	Textile Application
31	Tetraboron disodium heptaoxide, hydrate	12267-73-1	Detergents, precursor perborate, stabilizer enzymes with liquid/laundry detergents
32	Sodium chromate	7775-11-3	Dyeing of protein fibres, dyeing with chrome dyes
33	Ammonium dichromate	7789-09-5	Dyeing of protein fibres, dyeing with chrome dyes
34	Potassium dichromate	7778-50-9	Dyeing of protein fibres, dyeing with chrome dyes, mordants
35	Potassium chromate	7789-00-6	Dyeing of protein fibres, dyeing with chrome dyes, pigments
15/12/2010 – 8 SVHC published / Total sum to date = 43			
36	Cobalt(II) sulphate	10124-43-3	Pigments and possibly catalysts, dessicants
37	Cobalt(II) dinitrate	10141-05-6	Catalyst
38	Cobalt(II) carbonate	513-79-1	Catalyst
39	Cobalt(II) diacetate	71-48-7	Pigments
40	2-Methoxyethanol	109-86-4	Catalysts, minor uses: pigments, dyes and rubber adhesion
41	2-Ethoxyethanol	110-80-5	Minor uses: solvents
42	Chromium trioxide	1333-82-0	Minor uses as pigment, catalyst and oxidizing agent
43	Acids generated from chromium trioxide and their oligomers. Names of the acids and their oligomers: Chromic acid, Dichromic acid, Oligomers of chromic acid and dichromic acid.	7738-94-5 13530-68-2	Minor uses: pigments, catalyst and oxidizing agent
20/06/2011 – 7 SVHC published / Total sum to date = 50			
47	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	68515-42-4	Plasticizer
48	Hydrazine	302-01-2 7803-57-8	Corrosion inhibitor in water treatment
49	1-Methyl-2-pyrrolidone	872-50-4	Coatings: acrylic and styrene latexes, urethane dispersions
51	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	71888-89-6	Plasticizer

Reference Number	Chemical substance	CAS Number	Textile Application
20/06/2011 - 28/10/2008 – 1 SVHC published / Total sum to date = 51			
44	Cobalt dichloride	7646-79-9	Dessicants
19/12/2011 – 20 SVHC's published / Total sum to date = 71			
56	2,2'-dichloro-4,4'-methylenedianiline	101-14-4	Curing agent in the production of PU resins and PU elastomeres (end product can contain up to 4% MOCA)
57	N,N-dimethylacetamide	127-19-5	Spinning solvent acrylic -, polyurethane-, polyurea co polymers and meta-aramide fibres (fibres can contain up to 3% DMAC)
62	1,2-dichloroethane	107-06-2	Vinyl chloride monomere (PVC-products)
63	4-(1,1,3,3-tetramethylbutyl)phenol	140-66-9	Emusifier in textile finishing agents, emusifier in washing agents, textile printing inkts
64	2-Methoxyaniline; o-Anisidine	90-04-0	Dyestuff for leather-, textile- and paper products, pigment in printing inks
65	Bis(2-methoxyethyl) phthalate	117-82-8	Plasticizer PVC, printing inkts
68	Aluminosilicate Refractory Ceramic Fibres are fibres covered by index number 650-017-00-8 in Annex VI of Regulation (EC) No 1272/2008	-	Materials for PPE, applied in carpet backing
69	Pentazinc chromate octahydroxide	49663-84-5	C.I. Pigment yellow 36
70	Potassium hydroxyoctaoxodizincatedichromate	11103-86-9	C.I. Pigment yellow 36:1
18/06/2012 – 13 SVHC's published / Total sum to date = 84			
74	Diboron trioxide	1303-86-2	Flame retardant, detergent and cleaning, biocide
75	Formamide	75-12-7	Plasticiser, water soluble glues

Reference Number	Chemical substance	CAS Number	Textile Application
79	4,4'-bis(dimethylamino)benzophenone (Michler's ketone)	90-94-8	Solvent blue 4 dye, printing inks and adhesives
81	[4-[[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Blue 26)	2580-56-5	C.I. Basic Blue 26, printing inks, dyes
82	[4-[4,4'-bis(dimethylamino)benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3)	548-62-9	C.I. Basic Violet 3, printing inks, dyes
83	4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol	561-41-1	Solvent Violet 8, writing inks, dyes
84	α,α -Bis[4-(dimethylamino)phenyl]-4-(phenylamino)naphthalene-1-methanol (C.I. Basic Violet 3) [with $\geq 0.1\%$ of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	6786-83-0	C.I. Basic Violet 3, printing inks
19/12/2012 – 54 SVHC's published / Total sum to date = 138			
85	Pyrochlore, antimony lead yellow	8012-00-8	Pigment yellow 41 (pigment for inks and toners, coatings)
86	6-methoxy-m-toluidine (p-cresidine)	120-71-8	Aromatic amines, azo-dyes
90	Dibutyltin dichloride (DBTC)	683-18-1	Additive in rubber, PVC stabilizer, catalyst PU production
94	4-Aminoazobenzene	60-09-3	Aromatic amines, azo-dyes
97	o-Toluidine	95-53-4	Aromatic amines, azo-dyes
98	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2	Moisture scavenger for use in urethane coatings, sealings and elastomers
102	N,N-dimethylformamide	68-12-2	Solvent for PU-coating, PU- and acrylic fibre, artificial leather
103	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated	-	Surface active substance, detergents. Additive in some spinning oils
104	4-Nonylphenol, branched and linear	-	Surface active substance, detergents. Additive in some spinning oils

Reference Number	Chemical substance	CAS Number	Textile Application
16/12/2013 – 6 SVHC's published / Total sum to date = 151			
146	Disodium 4-amino-3-[[4'-[(2,4-diaminophenyl)azo][1,1'-biphenyl]-4-yl]azo] - 5-hydroxy-6-(phenylazo)naphthalene-2,7-disulphonate (C.I. Direct Black 38)	1937-37-7	Colorants & pigments C.I Direct Black 38
147	Dihexyl phthalate (DHP)	84-75-3	Plasticiser
148	Imidazolidine-2-thione; (2-imidazoline-2-thiol)	96-45-7	Accelerator for latex production (alkylthiourea)
150	Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	573-58-0	Colorants & pigments C.I Direct Red 28
16/06/2014 – 4 SVHC's published / Total sum to date = 155			
153	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4	Phthalates/Plasticizers
17/12/2014 – 6 SVHC's published / Total sum to date = 161			
158	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7	UV stabilizer for syntetic materials, rubber and polyurethanes
159	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1	UV stabilizer for syntetic materials, rubber and polyurethanes
160	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)	15571-58-1	Heat stabilizer in PVC
161	reaction mass of 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate and 2-ethylhexyl 10-ethyl-4-[[2-[(2-ethylhexyl)oxy]-2-oxoethyl]thio]-4-octyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (reaction mass of DOTE and MOTE)	-	Heat stabilizer in PVC
15/06/2015 – 2 SVHC's published / Total sum to date = 163			
163	1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with ≥ 0.3% of dihexyl phthalate	68515-51-5 68648-93-1	Plasticizers, lubricants, coatings, polymer foils and adhesives

E: Useful links

Stage prior to Pre-candidate list

following-up the Current Intentions with the “Registry of current Restriction proposal intentions”

<http://echa.europa.eu/web/guest/registry-of-current-restriction-proposal-intentions>

Pre- Candidate list

look under Annex XV dossiers submitted “Registry of submitted SVHC proposal intentions”

<http://echa.europa.eu/web/guest/registry-of-submitted-svhc-intentions>

SVHC or Candidate list

chemicals for which the Reach 0,1 % w/w threshold applies

<http://echa.europa.eu/web/guest/candidate-list-table>

Annex XV list

look under Annex XV dossiers submitted “Registry of submitted Restriction proposal intentions”,
substances for which there is an intention for immediate restriction - **SUNSET DATE**

<http://echa.europa.eu/web/guest/registry-of-submitted-restriction-proposal-intentions>

Annex XVII list

bundling all chemical restrictions from the EU member states

<http://echa.europa.eu/web/guest/regulations/reach/legislation>

Section 7: Biocides

Biocides are chemical substances that are used to suppress or control biological organisms such as mold and bacteria. Products are typically treated with biocides to preserve the product itself or to create a function such as odor control or insect repellency.

An article that has been treated⁴⁸ with or intentionally incorporates a biocidal product, with a view to protect its properties or function or extend its durability or shelf life is **an article having a Biocidal Property**. (*i.e. leather goods treated with fungicides to prevent mould or mildew or carpets treated with insecticides against moth damage*)

An article treated with a biocidal product, with the intention not to protect the article itself or its function, but to introduce an additional function which is biocidal, is considered to be **an article with a Primary Biocidal Function**. (*i.e. an insecticide impregnated bed net or anti-bacterial whipes*)

Biocides and their permitted use are becoming increasingly regulated worldwide. Therefore, proficiency regarding which biocides are allowed for use in specific applications is needed.

A: Biocide Product Regulation (BPR) – EU Regulation No. 528/2012

Biocides and biocide use are regulated in the European Union by the EU Biocide Product Regulation No. 528/2012. The full text of the BPR is available directly from the EU-lex platform.⁴⁹

A1: Scope of the BPR

The BPR applies to biocidal products and treated articles⁵⁰. Biocidal products are only allowed on the EU market if they have been authorized under the BPR directive for the intended use.

A2: Product Types (PT)

Biocides are divided into 4 main groups under the BPR, with each group subdivided into different Product Types, as listed below:

- **Group 1:** Disinfectants, PT 1 to PT 5
- **Group 2:** Preservatives, PT 6 to PT 13
- **Group 3:** Pest Control, PT 14 to PT 20
- **Group 4:** Other Biocidal Products, PT 21 to PT 22

The PT describes the application area of the biocide. (as an example, preservatives used on wood are listed in Group 2, Preservatives, and in Product Type 8, Wood Preservatives)

Use of biocides on VF products shall conform to the EU BPR, permitting only authorized biocidal products for the intended function.

⁴⁸ Ref. definition 'treated article' in Section 7 B

⁴⁹ <http://eur-lex.europa.eu/>

⁵⁰ Ref. definition 'treated article' in Section 7 B

B: Definitions within the BPR

Similar to REACH, the EU BPR applies to both Chemical Substances and Preparations and Articles.

Important definitions within the BPR are below:

- **Articles** are defined by their geometrical form rather than the chemical/ physical properties of the substance.
- **Treated Article** means any substance, mixture or article which has been treated with, or intentionally incorporates one or more biocidal products.
- **Biocidal Products** are defined as:
 - any substance or mixture, in the form in which it is supplied to the user, consisting of, containing or generating one or more active substances, with the intention of destroying, deterring, rendering harmless, preventing the action of, or otherwise exerting a controlling effect on, any harmful organism by any means other than mere physical or mechanical action,
 - any substance or mixture, generated from substances or mixtures which do not themselves fall under the first indent, to be used with the intention of destroying, deterring, rendering harmless, preventing the action of, or otherwise exerting a controlling effect on, any harmful organism by any means other than mere physical or mechanical action.
 - a treated article that has a primary biocidal function

Under the BPR, when an article has been treated to create a primary biocidal function, that article shall be defined as a biocidal product for compliance to the BPR.

C: Important aspects of the BPR

C1: Rules for the use of treated articles

When determining the allowable biocide to create a specific function, only authorized substances listed in the BPR shall be used. Authorized substances include those listed in:

- the Approved Substances List⁵¹
- Annex I of the BPR
- the Review Program⁵² and non-inclusion decisions

C2: EU import regulations for treated articles

“A treated article shall not be placed on the market unless all active substances contained in the biocidal products that it was treated with or incorporates are included in the list drawn up in accordance with Article 9(2) (*list of authorized substances*), for the relevant product-type and use, or in Annex I (*substances for simplified authorization of the biocidal product*), and any conditions or restrictions specified therein are met”

⁵¹ http://ec.europa.eu/environment/chemicals/biocides/active-substances/approved-substances_en.htm

⁵² http://ec.europa.eu/environment/chemicals/biocides/active-substances/review-programme_en.htm#rp_list_substances

C3: Labelling requirement for treated articles

Treated articles containing a biocidal product require labeling if:

- a claim is made by the manufacturer of that treated article regarding the biocidal properties of the article, or
- in relation to the active substance(s) and the substance potential to contact humans or release into the environment, specific authorizations may require associated labeling.

Label requirements:

When required, the label shall provide the following information:

- a statement that the treated article incorporates biocidal products;
- where substantiated, the biocidal property attributed to the treated article;
- the name of all active substances contained in the biocidal products;
- the name of all nanomaterials contained in the biocidal products, followed by the word 'nano' in brackets; and
- any relevant instructions for use, including any precautions⁵³.

C4: Information duty for treated articles

Similar to REACH, the BPR obligates the treated product supplier to provide information to any consumer, upon request, within 45 days and free of charge, with information regarding the biocidal treatment of the treated article.

D: Important Links

Regulation concerning the making available on the market and use of biocidal products

http://ec.europa.eu/environment/chemicals/biocides/regulation/regulation_en.htm#

List of approved substances:

http://ec.europa.eu/environment/chemicals/biocides/active-substances/approved-substances_en.htm

List of substances included in the review program:

http://ec.europa.eu/environment/chemicals/biocides/active-substances/review-programme_en.htm#rp_list_substances

List of Non Inclusions:

http://ec.europa.eu/environment/chemicals/biocides/active-substances/non_inclusion_en.htm

Products with Biological Activities: (öko-tex website)

http://ec.europa.eu/environment/chemicals/biocides/active-substances/approved-substances_en.htm

⁵³ It is advisable to check the Material Safety Data Sheet of the biocidal products used and to contact the chemical supplier for additional information and advise.

Section 8: CPSIA - United States Consumer Product Safety Improvement Act

The Consumer Product Safety Improvement Act CPSIA of 2008 reauthorizes the Consumer Product Safety Commission (CPSC) and expands the Commission's role in ensuring the safety of all consumer products, but in particular, it imposes additional requirements to enhance the safety of products designed for children up to age 12 years.

VF has established programs and procedures to comply with CPSIA and other applicable legal requirements. These include product design requirements, manufacturing specifications, and product testing programs, among other procedures as mentioned in this Product Safety Manual. VF requires all product suppliers to deliver only products that comply with applicable legal requirements and specifications, including those listed in this manual. Compliance with CPSIA requires suppliers to maintain a reasonable product testing program, quality control systems, auditing, and product tracking procedures at every production lot level.

A: Scope

CPSIA mandates testing for children's and adult products for which the CPSC has established a safety requirement. This includes but is not limited to testing for small parts (as per Title 16 CFR 1501), testing for sharp edges / points, flammability, etc.

For certain children's products, CPSIA also permanently bans three phthalates (DEHP, DBP, and BBP) while banning three additional phthalates (DINP, DIDP, and DNOP) on an interim basis. The RSL reflects these restrictions.

CPSIA mandates safety testing for every lot of products intended for children 12 years of age and younger. Suppliers are also required to label products with traceability information to allow tracking in case of a product recall.

B: Certifications

A Children's Product Certificate (CPC) must be issued for Children's products manufactured overseas, and domestically covered by CPSC rules. A General Conformity Certificate (GCC) must be issued for every non-children's (general use) product covered by CPSC rules and manufactured in or imported into the United States. CPC / GCC must be issued by the importer or domestic (US) manufacturer, not the supplier. However, the importer of the product (VF or VF subsidiary, for example) must rely upon the supplier's product safety and compliance procedures, along with the supplier's product testing reports, to ensure that the product conforms to applicable requirements.

Section 9: RSL Product Testing Guidance

Product testing requirements can be found in the VF brand specific product testing manuals. Tests specified in testing manuals are mandatory. VF Brands may also provide guidance on chemical management and RSL compliance relating to a specific VF brand.

The tables below (pages 46 & 47) provide general guidance on product testing for various material types. The tables are not intended to replace the mandatory VF brand specific testing requirements, however are meant to provide additional guidance to our suppliers to assist in their internal chemical management programs.

Test Item	Material Types										
	Plastics and other synthetic materials – PU, PVC, Rubber, TPU, TPR, EVA etc.	Textiles and fabrics (natural fibers)	Textiles and fabrics (synthetic fibers)	Textiles and fabrics (natural and synthetic fiber blends)	Coating/ Printing (with base material, included PU coated fabric)	Leather	Metal Parts	Adhesives	Packaging Materials	Desiccants	Durable Water Repellent, Stain Release
Azo Dyes		X	X	X	X	X					
Disperse Dyes			X	X							
Other Dyes		X	X	X		X					
Formaldehyde	X ⁵⁴	X	X	X	X	X		X			
Nickel Release (direct & prolonged skin contact)							X				
Total Lead	X				X	X	X				
Phthalates	X				X	X		X	X		
Chromium VI						X					
Total Cadmium	X				X	X	X				
OPEO - NPEO / OP - NP		X	X	X		X					
PAH	X										
Organotin	X		X	X	X	X					
Packaging (metals and DMFu)									X	X	
VOC's	X					X		X			
N-Methylpyrrolidone (NMP)						X					
PFOA / PFOS											X

⁵⁴ Only foam materials need to be tested for formaldehyde.

Test Item	Material Types										
	Plastics and other synthetic materials – PU, PVC, Rubber, TPU, TPR, EVA etc.	Textiles and fabrics (natural fibers)	Textiles and fabrics (synthetic fibers)	Textiles and fabrics (natural and synthetic fiber blends)	Coating/ Printing (with base material, included PU coated fabric)	Leather	Metal Parts	Adhesives, Ink, Paint (screen print inks & heat transfers)	Packaging Materials	Desiccants	Durable Water Repellent, Stain Release
Flame retardants	X ⁵⁵										
Heavy metals	X				X	X	X	X			
Nitrosamines	X ⁵⁶										
Pesticides		X		X							
Chlorinated Aromatics		X		X	X	X					

VF currently maintains various product testing programs to validate RSL compliance. Notwithstanding VF’s testing programs, the supplier shall be fully responsible for obtaining all necessary knowledge and information required to understand and execute business processes that ensure RSL compliance. The supplier is also responsible for performing analytical testing on products to verify the product’s compliance to all RSL requirements.

Products should be tested as prescribed in the following table, which provides guidance regarding the most probable tests to conduct for a product type. However nothing in the guidance below shall be construed to relieve a supplier from their duty to provide products compliant with the full RSL. In addition to the testing guidance provided in the following table, VF may at any time request additional testing to validate product compliance with the RSL. All costs associated with product testing are the responsibility of the supplier.

⁵⁵ All foam materials need to be tested for flame retardants against the limits as specified in section 2K.

⁵⁶ Shoe sole materials, latex, rubber

Section 10: Chemical Information Log

For a good in-house RSL management system, the manufacturer should understand if the materials or chemicals used in development or production contain any restricted substances. This information may be obtained from the material/chemical supplier.

It has been a common industrial practice for manufacturer to collect MSDS (Material Safety Data Sheet) from chemical supplier for RSL compliance validation. However the restricted substance information may not be listed in the MSDS either because of the concentration of the substance, or, the quality of the MSDS. In order to promote transparency and accurate information flow, Chemical Information Log (CIL) has been developed.

The manufacturer should send this RSL to their material and chemical supplier, requesting them to provide only materials/chemicals that comply with the VFC RSL. The chemical supplier should also complete and return the Chemical Information Log (CIL). The VFC product manufacturer should collect the updated CIL for each preparation used in the manufacture of any VF product. Note: the CIL should be completed by the chemical supplier but not the VFC product manufacturer.

The CIL includes 5 columns. The first column should be completed with the chemical trade name, as indicated on product packaging documents, MSDS and label. For each preparation, the chemical supplier shall indicate whether such preparation contains a RSL substance.

When a preparation contains an RSL substance in a concentration that could cause a VF product to exceed corresponding RSL restrictions, the chemical supplier should indicate this by identifying the RSL substance and concentration on the CIL. The concentration indicated on the CIL must be the concentration of the RSL substance in the chemical preparation.

Chemical Information Log (CIL)

For VF Corporation RSL 2015

Date of Log:		Name of Requesting Supplier/Vendor
Name of Chemical Supplier:		
Address of Supplier		

Instructions: Please indicate if any chemical or other good you supply to VF or a VF brand, or used in the manufacture of any VF branded product, contains or may form any RSL listed substance in a concentration on the product that would exceed any prohibition, limitation or other requirement as listed in the VF RSL.

Trade Name	Yes – Contains RSL Substance [√ check if true]	RSL Substance	CAS No.	Concentration in preparation

The undersigned is an owner, director, officer, managing agent or other person authorized to execute this Chemical Information Log on the behalf of the chemical supplier.

Name (Please Print): _____

Signature: _____

Position: _____

E-mail: _____

Company Stamp: _____

Appendix 1: VF RSL Contacts

NAME	BRAND	E-MAIL ADDRESS	PHONE
Jacek Kowalczyk	7 For All Mankind - EU	jacek_kowalczyk@vfc.com	+41.79.2589.620
Zoran Sukloski	Contemporary – US	zoran_sukloski@vfc.com	+1.213.222.3082
Melissa Coe	Eagle Creek - US / EU	melissa_coe@vfc.com	+1.760.431.6409
Jrod Enriquez	The North Face - US	jrod_enriquez@vfc.com	+1.510.748.2616
Charles Cooper	Imagewear - US	charles_cooper@vfc.com	+1.615.565.5193
Linda Malkiewicz	Imagewear - US	linda_malkiewicz@vfc.com	+1.615.565.5579
Christopher Chung	Jansport - US	chris_chung@vfc.com	+1.510.614.4053
Dieter Dassonneville	Jeanswear - EU	dieter_dassonneville@vfc.com	+32.477.703.032
Efrain Diaz	Jeanswear - LA	efrain_diaz@vfc.com.ar	+54.2292.451.300
Carole McFee	Jeanswear - US	carole_mcfee@vfc.com	+1.336.332.4888
Peter Sweron	Kipling / Eastpak	peter_sweron@vfc.com	+32.3.298.2366
Guy Vanderghinste	Kipling / Eastpak	guy_vanderghinste@vfc.com	+32.3.298.2391
Frankie Pang	Lucy - US	frankie_pang@vfc.com	+1.510.864.5472
Dariusz Morawiec	Napapijri - EU	dariusz_morawiec@vfc.com	+41.79.674.6245
Stacey Hernandez	Nautica - US	stacey_hernandez@vfc.com	+1.201.533.4330
Joel Barrie	Reef Footwear- US	joel_barrie@vfc.com	+1.760.431.2345
Gianluca Mecatti	Reef/ The North Face / Vans / Smartwool - EU	gianluca_mecatti@vfc.com	+41.79.920.5473
Kimberly Kourkoules	Smartwool - US	kimberly_kourkoules@vfc.com	+1 423.535.0887
Pamela Metts	Splendid / Ella Moss	pamela_metts@vfc.com	+1.213.488.4562
Paolo Guidotti	Timberland - EU	paolo_guidotti@vfc.com	+44.7841.206.536
Mary Grim	Timberland - US / EU	mary_grim@vfc.com	+1.603.773.1735
NAME	CORPORATE DEPT.	E-MAIL ADDRESS	PHONE
Harsha Chenna	VF Americas	harsha_chenna@vfc.com	+1.201.533.6393
Karen Mejia	VF Americas	karen_mejia@vfc.com	+504.2606.3192
Kitty Man	VF Asia	kitty_man@vfc.com	+852.2953.5822
Christian D'Alessandro	VF Asia Footwear	christian_dalessandro@vfc.com	+852.2953.2533
Kinny Ho	VF Asia	kinny_ho@vfc.com	+852.2318.1268
Patsy Shek	VF Asia	patsy_shek@vfc.com	+852.2953.1044
Lydia Kang	VF Asia	lydia_kang@vfc.com	+8620.8113.3122
Shamim Ahmed	VF Asia	shamim_ahmed@vfc.com	+880.197.168.0880
Sean Cady	VF Corporation	sean_cady@vfc.com	+66.8.2220.1972
Frank Opdenacker	VF Europe	frank_opdenacker@vfc.com	+32.3.298.2531
Dieter Dassonneville	VF Europe	dieter_dassonneville@vfc.com	+32.477.703.032
Pierre Ierardi	VF Europe	pierre_ierardi@vfc.com	+41.91.649.1519
Luis Sanchez	VF Panama	luis_sanchez@vfc.com	+507.831.2396

Appendix 2: Definitions

Accessories – Products other than a standard shirt, shoe or pant. These may include both apparel and non-apparel products such as belts, caps, wallets, handbags, socks, eyewear, watches, and more. All accessories carrying a VF brand logo or manufactured for VF Corporation shall comply with the VF Restricted Substance List (RSL).

Article – An object which during production is given a special shape, surface or design which determines its function to a greater degree than does its chemical composition.

Authorization – One of the pillars of the European REACH regulation, where producers and importers of hazardous chemicals require a special permission to place these chemicals on the European market.

Candidate List – A list of substances meeting the criteria of Substances of Very High Concern as defined within REACH, and proposed by either the European Commission or the EU Member states. These substances are candidates for Authorisation.

Carcinogenic – A carcinogenic substance causes cancer.

Chemical Abstract Service (CAS) Number – The CAS number is a unique number that identifies a particular chemical structure. While there may be various synonyms and different naming conventions for a chemical, there is only one CAS number. Mixtures of chemicals do not have CAS numbers, only individual chemical components have CAS numbers. When there is doubt about the chemical name used in the RSL, always check the CAS number.

Childcare Articles – Childcare articles shall mean any product intended to facilitate sleep, relaxation, hygiene, the feeding of children or sucking on the part of children.

Children's Products – A children's product is that which is made for, marketed for use by, or marketed to children age 12 and under.

CMR1 and CMR2 – **Carcinogenic, Mutagenic and Repro-toxic** chemicals, abbreviated as **CMR** chemicals, make up the first and most toxic category of the toxicity classes into which hazardous chemicals can be subdivided, according to EU legislation. Carcinogenic chemicals can cause or promote cancers. Mutagenic chemicals can cause genetic mutations. Repro-toxic chemicals can damage the reproductive process.

CPSIA – The United States Consumer Product Safety Improvement Act of 2008, which expands the Consumer Product Safety Commission's role in ensuring the safety of consumer products distributed throughout the United States of America. Detailed information can be found at <http://www.cpsc.gov/>.

Detection Limit – The detection limit specifies the test method sensitivity that a laboratory must be able to achieve when measuring the respective substance.

ECHA – The European Chemicals Agency, located in Helsinki, Finland, and the administering body for REACH. Detailed information can be found at <http://echa.europa.eu/>.

Evaluation – The second part of REACH where information submitted to the European Chemicals Agency by producers and importers during the Registration phase is examined and evaluated.

Food Contact Materials – Any VF Product that is intended to be used to carry, hold or otherwise store food or liquid for drinking. Examples include water bottles, hydration packs, coolers and more.

Limit Value – The concentration limit is set for each substance as measured on the final product and represents the maximum allowable amount of the respective substance which is allowable in a RSL-compliance product. The concentration limit is shown in the Limit Value column. The limit is specified as the amount of the substance found in a specified amount of substrate, by weight (or more specifically, in milligrams of the substance per kilogram of product [mg/kg]). Concentration limits are applicable to any single part, or homogeneous part, of a product.

N/A - Not Applicable.

Packaging and Packaging Materials - Means any container providing a means of marketing, protecting, or handling a product from its point of manufacture to its sale or transfer to a consumer, including a unity package, an intermediate package or a shipping container, as defined in the ASTM specification D 996. Packaging also includes, but is not limited to, unsealed receptacles, including carrying cases, crates, cups, pails, rigid foil and other trays, wrapper and wrapping films, bags, boxes, tape, and tubs.

PBT – Substances that are Persistent, Bioaccumulative and Toxic are substances that do not easily break down, instead they build up in nature and in the fatty tissue of mammals, with a potential to cause serious and long-term irreversible effects. Part of the REACH Substances of Very High Concern.

Persistent – A persistent substance will not break down or degrade in humans, animals or nature. This means that they will stay for a very long time once produced.

Bioaccumulative – Bioaccumulative is property causing the substances to build up (accumulate) in the body. Such substances build up in fat tissue in the body and cannot be excreted by the body.

Toxic – Toxicity is an intrinsic property of a substance rendering it to harm, impair or else how damage living organisms.

Toxic for Reproduction – A substance which is toxic for reproduction will impair the ability to get children or cause irreversible harm to the offspring itself.

Polyvinyl Chloride (PVC) – Polyvinyl chloride, or PVC for short, is a hard plastic that may be found in packaging materials, trims, footwear, and screen printing. PVC is prohibited from use in all VF packaging and food contact products. In addition, VF prefers all products do not contain PVC and supports efforts to phase-out PVC.

vPvB – vPvBs are substances that are very Persistent and very Bioaccumulative. Even when such substances would not be categorized as toxic, they are still considered to be Substances of Very High Concern according to REACH because they persist in the environment and accumulate in the food chain for a long period of time.

Reporting Limit (RL) – The reporting limit is the lowest concentration the laboratory is allowed to report any finding of the respective substance. If the laboratory detects an amount of the substance below the RL, the laboratory shall state their findings in the laboratory test report as Not Detected.

Registration – The first phase of the REACH process where all chemicals manufactured in or imported into the European Union in volumes above one ton per year, have to be registered to the European Chemicals Agency (ECHA).

RoHS Electrical and Electronic Equipment - The RoHS restrictions cover the actual electronic parts and ancillary portions of the final electrical or electronic product. Products covered by this requirement include:

- Large and small household appliances
- IT equipment
- Telecommunications equipment (although infrastructure equipment is exempt in some countries)
- Consumer equipment
- Lighting equipment - including light bulbs
- Electronic and electrical tools
- Toys, leisure, and sports equipment
- Medical devices (currently exempt)
- Monitoring and control instruments (currently exempt)
- Automatic dispensers

In addition, the components of the above products must meet the RoHS requirements. Examples include:

- Paints and pigments
- PVC (vinyl) cables as a stabilizer (e.g. power cords, USB cables)
- Solders
- Printed circuit board finishes, leads, internal and external interconnects
- Glass in television and photographic products (e.g. CRT television screens and camera lenses)
- Metal parts
- Lamps and bulbs
- Batteries

Sunset date – A date where after a substance subject to Authorization may not be used anymore, unless an Authorization has been granted by the European Commission.

SVHC – An abbreviation for Substances of Very High Concern and referring to the most hazardous substances according article 57 of REACH. (see also Section 6 E)

Trace Amount (TR) – The trace amount is the allowable unavoidable trace presence of a substance that has been identified with a usage ban. While a substance may not be used in the production of a product, a small acceptable trace amount is allowed to be found on a RSL-compliant product due to minor contamination or atmospheric absorption.

Usage Ban – A usage ban is the prohibition of the intentional use of the respective substance during any stage of production of the VF Product or any Raw Material.

Appendix 3: Index of CAS Numbers

CAS Number	Chemical Substance	RSL Section
50-00-0	Formaldehyde	2E
50-29-3	<i>p,p</i> -Dichlorodiphenyl-trichloroethane (<i>p,p</i> -DDT)	3C
50-32-8	Benzo[a]pyrene	2H
53-19-0	<i>o,p</i> -Dichlorodiphenyl-dichloroethane (<i>o,p</i> -DDD)	3C
53-70-3	Dibenzo[a,h]anthracene	2H
55-18-5	N-nitrosodiethylamine	2O
56-23-5	Tetrachloromethane	2I
56-23-5	CCl ₄	4B Group 4
56-35-9	Bis(tributyltin)oxide (TBTO)	2F
56-38-2	Parathion	3C
56-55-3	Benzo[a]anthracene	2H
56-72-4	Coumaphos	3C
57-74-9	Chlordane	3C
59-89-2	N-nitrosomorpholine	2O
60-09-3	4-Aminoazobenzene	2A, 6D
60-51-5	Dimethoate	3C
60-57-1	Dieldrin	3C
62-75-9	N-Nitrosodimethylamine	2O
63-25-2	Carbaryl	3C
64-67-5	Diethyl sulphate	6D
67-66-3	Trichloromethane (Chloroform)	2I
68-12-2	N,N-Dimethylformamide (DMF)	2I, 6D
71-43-2	Benzene	2I
71-55-6	1,1,1-Trichloroethane	2I
71-55-6	C ₂ H ₃ Cl ₃	4B Group 5
72-20-8	Endrine	3C
72-43-5	Methoxychlor	3C
72-54-8	<i>p,p</i> -Dichlorodiphenyl-dichloroethane (<i>p,p</i> -DDD)	3C
72-55-9	<i>p,p</i> -Dichlorodiphenyl-dichloroethylene (<i>p,p</i> -DDE)	3C
72-56-0	Perthane	3C
74-83-9	CH ₃ Br	4B Group 6
74-97-5	CH ₂ BrCl	4B Group 8
75-01-4	Vinyl Chloride	2N
75-10-5	HFC-32 - CH ₂ F ₂	4A
75-12-7	Formamide	6D
75-35-4	1,1-Dichloroethylene	2I
75-37-6	HFC-152a - C ₂ H ₄ F ₂	4A
75-43-4	CHFC ₂	4C

CAS Number	Chemical Substance	RSL Section
75-45-6	CHF ₂ Cl	4C
75-46-7	HFC-23 - CHF ₃	4A
75-63-8	CF ₃ Br	4B Group 2
75-68-3	C ₂ H ₃ F ₂ Cl	4C
75-69-4	CFCl ₃	4B Group 1
75-71-8	CF ₂ Cl ₂	4B Group 1
75-72-9	CF ₃ Cl	4B Group 3
75-73-0	Perfluoromethane - CF ₄	4A
75-88-7	C ₂ H ₂ F ₃ Cl	4C
76-01-7	Pentachloroethane	2I
76-12-0	C ₂ F ₂ Cl ₄	4B Group 3
76-13-1	C ₂ F ₃ Cl ₃	4B Group 1
76-14-2	C ₂ F ₄ Cl ₂	4B Group 1
76-15-3	C ₂ F ₅ Cl	4B Group 1
76-16-4	Perfluoroethane - C ₂ F ₆	4A
76-19-7	Perfluoropropane - C ₃ F ₈	4A
76-44-8	Heptachlor	3C
78-30-8	Tri-o-cresyl phosphate	2K
78-33-1	Tris (4-tert-butylphenyl) phosphate (TBPP)	2K
78-48-8	DEF	3C
79-00-5	1,1,2-Trichloroethane	2I
79-01-6	Trichloroethylene (TCE)	2I
79-34-5	1,1,2,2-Tetrachloroethane	2I
80-05-7	Bisphenol A (BPA)	2N
81-15-2	5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	6D
82-28-0	Disperse Orange 11	2B
82-68-8	Quintozene	3C
83-32-9	Acenaphthene	2H
84-66-2	Diethyl phthalate (DEP)	2D
84-69-5	Di-iso-butyl phthalate (DIBP)	2D, 2N
84-74-2	Dibutyl phthalate (DBP)	2D, 2N, 6D
84-75-3	Dihexyl phthalate (DnHP or DHEXP)	2D, 2N, 6D
85-01-8	Phenanthrene	2H
85-68-7	Butyl benzyl phthalate (BBP)	2D, 2N, 6D
86-50-0	Azinophosmethyl	3C
86-73-7	Fluorene	2H
87-62-7	2,6-Xylidine	2A
87-86-5	Pentachlorophenol (PCP)	2J
88-06-2	2,4,6-trichlorophenol	2J
88-85-7	Dinoseb (6-sec-butyl-2,4-dinitrophenol)	3C, 6D

CAS Number	Chemical Substance	RSL Section
90-04-0	2-Methoxyaniline; o-Anisidine	2A, 6D
90-94-8	4,4'-bis(dimethylamino)benzophenone (Michler's ketone)	6D
91-20-3	Naphthalene	2H
91-59-8	2-Naphthylamine	2A
91-94-1	3,3'-Dichlorobenzidine	2A
92-67-1	4-Aminodiphenyl, Biphenyl-4-ylamine	2A, 6D
92-87-5	Benzidine	2A
93-65-2	Mecoprop	3C
93-72-1	2-(2,4,5-Trichlorophenoxy) propionic acid, salts, compounds	3C
93-76-5	2,4,5-Trichlorophenoxyacetic acid (2,4,5-T), salts, compounds	3C
94-74-6	MCPA	3C
94-75-7	2,4-Dichlorophenoxy-acetic acid, its salts and compounds (2,4-D)	3C
94-81-5	MCPB	3C
95-53-4	<i>o</i> -Toluidine	2A, 6D
95-68-1	2,4-Xylidine	2A
95-69-2	4-Chloro- <i>o</i> -toluidine	2A
95-80-7	4-methyl-m-phenylenediamine (toluene-2,4-diamine)	2A, 6D
95-95-4	2,4,5-trichlorophenol	2J
96-12-8	1,2-Dibromo-3-Chloropropane (DBCP)	3C
96-45-7	Imidazolidine-2-thione; (2-imidazoline-2-thiol)	6D
97-56-3	<i>o</i> -aminoazotoluene	6D
97-56-3	<i>o</i> -Aminoazotoluene	2A
99-55-8	2-Amino-4-nitrotoluene	2A
100-75-4	N-nitrosopiperidine	2O
101-14-4	4,4'-Methylene-bis-(2-chloraniline), 2,2'-dichloro-4,4'-methylenedianiline	2A, 6D
101-77-9	4,4'- Diaminodiphenylmethane (MDA)	2A, 6D
101-80-4	4,4'-Oxydianiline	2A, 6D
106-47-8	<i>p</i> -Chloroaniline	2A
106-93-4	Ethylene Dibromide (EDB)	3C
107-06-2	1,2-dichloroethane	6D
108-88-3	Toluene	2I
115-25-3	Perfluorocyclobutane -c- C ₄ F ₈	4A
115-29-7	Endosulfan	3C
115-32-2	Dicofol	3C
115-86-6	Tri Phenyl phosphate (TPP)	2K
115-96-8	Tris(2-chloroethyl) phosphate (TCEP)	2K
116-06-3	Aldicarb	3C
117-81-7	Di(ethylhexyl) phthalate (DEHP)	2D, 2N
117-81-7	Bis (2-ethylhexyl)phthalate (DEHP)	6D

CAS Number	Chemical Substance	RSL Section
117-82-8	Bis(2-methoxyethyl) phthalate (DMEP)	2D, 2N, 6D
117-84-0	Di-n-octyl phthalate (DNOP)	2D, 2N
118-74-1	Hexachlorobenzene	3C
119-15-3	Disperse Yellow 1	2B
119-90-4	3,3'-Dimethoxybenzidine	2A
119-93-7	3,3'-Dimethylbenzidine	2A
120-12-7	Anthracene	2H, 6D
120-36-2	Dichlorprop	3C
120-71-8	6-methoxy-m-toluidine (p-cresidine)	2A, 6D
121-75-5	Malathion	3C
123-77-3	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	6D
124-73-2	C ₂ F ₄ Br ₂	4B Group 2
126-72-7	Tris (2,3-dibromopropyl) phosphate (TRIS)	2K
127-18-4	Tetrachloroethene (Perchloroethylene)	2I
127-19-5	Dimethylacetamide (DMAC), N,N-dimethylacetamide	2I, 6D
129-00-0	Pyrene	2H
131-11-3	Dimethyl phthalate (DMP)	2D
131-18-0	Dipentyl phthalate (DnPP or DPENP)	2D, 2N, 6D
137-17-7	2,4,5-Trimethylaniline	2A
139-65-1	4,4'-Thiodianiline	2A
140-66-9	4-(1,1,3,3-tetramethylbutyl)phenol	6D
141-66-2	Dicrotophos	3C
143-50-0	Kepone	3C
189-55-9	Dibenzo[a,i]pyrene	2H
189-64-0	Dibenzo[a,h]pyrene	2H
191-24-2	Benzo[ghi]perylene	2H
191-30-0	Dibenzo[a,l]pyrene	2H
192-65-4	Dibenzo[a,e]pyrene	2H
192-97-2	Benzo[e]pyrene	2H
193-39-5	Indeno[1,2,3-cd]pyrene	2H
205-82-3	Benzo[j]fluoranthene	2H
205-99-2	Benzo[b]fluoranthene	2H
206-44-0	Fluoranthene	2H
207-08-9	Benzo[k]fluoranthene	2H
208-96-8	Acenaphthylene	2H
218-01-9	Chrysene	2H
297-78-9	Telodrin	3C
298-00-0	Methyl Parathion	3C
306-83-2	C ₂ HF ₃ Cl ₂	4C
309-00-2	Aldrin	3C

CAS Number	Chemical Substance	RSL Section
333-41-5	Diazinon	3C
335-67-1	Pentadecafluorooctanoic acid (PFOA)	6D
353-59-3	CF ₂ ClBr	4B Group 2
354-14-3	C ₂ HFCl ₄	4C
354-21-2	C ₂ HF ₂ Cl ₃	4C
354-33-6	HFC-125 - C ₂ HF ₅	4A
354-56-3	C ₂ FCl ₅	4B Group 3
355-25-9	Perfluorobutane - C ₄ F ₁₀	4A
355-42-0	Perfluorohaxane - C ₆ F ₁₄	4A
359-28-4	C ₂ H ₂ FCl ₃	4C
359-35-3	HFC-134 - C ₂ H ₂ F ₄	4A
406-58-6	HFC-365mfc - CF ₃ CH ₂ CF ₂ CH ₃	4A
420-46-2	HFC-143 - C ₂ H ₃ F ₃	4A
420-97-3	C ₃ H ₅ FCl ₂	4C
421-02-3	C ₃ H ₅ F ₂ Cl	4C
421-41-0	C ₃ H ₄ FCl ₃	4C
421-94-3	C ₃ H ₂ FCl ₅	4C
422-26-4	C ₃ HFCl ₆	4C
422-49-1	C ₃ HF ₂ Cl ₅	4C
422-52-6	C ₃ HF ₃ Cl ₄	4C
422-54-8	C ₃ HF ₄ Cl ₃	4C
422-56-0	C ₃ HF ₅ Cl ₂	4C
422-78-6	C ₃ FCl ₇	4B Group 3
422-86-6	C ₃ F ₇ Cl	4B Group 3
425-94-5	C ₃ H ₂ F ₄ Cl ₂	4C
430-55-7	C ₃ H ₆ FCl	4C
431-63-0	HFC-236ea - CHF ₂ CHFCF ₃	4A
431-87-8	C ₃ HF ₆ Cl	4C
431-89-0	HFC-227ea - C ₃ HF ₇	4A
460-35-5	C ₃ H ₄ F ₃ Cl	4C
460-63-9	C ₃ H ₃ F ₂ Cl ₃	4C
460-69-5	C ₃ H ₃ F ₃ Cl ₂	4C
460-73-1	HFC-245fa - CHF ₂ CH ₂ CF ₃	4A
460-89-9	C ₃ H ₂ F ₂ Cl ₄	4C
460-92-4	C ₃ H ₂ F ₅ Cl	4C
465-73-6	Isodrin	3C
470-46-6	HFC-143a - C ₂ H ₃ F ₃	4A
470-90-6	Chlorfenvinphos	3C
507-55-1	C ₃ HF ₅ Cl ₂	4C
545-55-1	Tris (1-aziridiny)-phosphate oxide (TEPA)	2K

CAS Number	Chemical Substance	RSL Section
548-62-9	[4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3)	6D
561-41-1	4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol	6D
569-61-9	Basic Red 9	2B
573-58-0	Direct Red 28	2B
573-58-0	Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	6D
593-53-3	HFC-41 - CH ₃ F	4A
593-70-4	CH ₂ FCI	4C
605-50-5	Di-iso-pentyl phthalate (DIPP)	2D, 2N, 6D
608-73-1	Hexachlorocyclohexane (HCH)	3C
609-19-8	3,4,5-trichlorophenol	2J
612-64-6	N-nitroso-N-ethylaniline	2O
614-00-6	N-nitroso-N-methylaniline	2O
615-05-4	2,4-Diaminoanisole	2A
621-64-7	N-nitrosodipropylamine	2O
624-49-7	Dimethylfumarate (DMFu)	2F, 2L
625-45-6	Methoxyacetic acid	6D
629-14-1	1,2-Diethoxyethane	6D
630-20-6	1,1,1,2-Tetrachloroethane	2I
632-99-5	Basic Violet 14	2B
661-97-2	C ₃ F ₆ Cl ₂	4B Group 3
666-27-3	C ₃ H ₃ FCI ₄	4C
668-34-8	Triphenyltin (TPhT)	2F
677-56-5	HFC-236cb - CH ₂ FCF ₂ CF ₃	4A
678-26-2	Perfluoropentane - C ₅ F ₁₂	4A
679-86-7	HFC-245ca - C ₃ H ₃ F ₅	4A
683-18-1	Dibutyltin dichloride (DBTC)	2F, 6D
690-39-1	HFC-236fa - C ₃ H ₂ F ₆	4A
730-40-5	Disperse Orange 3	2B
789-02-6	<i>o,p</i> -Dichlorodiphenyl-trichloroethane (<i>o,p</i> -DDT)	3C
811-97-2	HFC-134a - CH ₂ FCF ₃	4A
819-00-1	C ₃ H ₄ F ₂ Cl ₂	4C
838-88-0	4,4'-methylenedi-o-toluidine	6D
838-88-0	3,3'-Dimethyl-4,4'-diamino-diphenylmethane	2A
872-50-4	N-Methylpyrrolidone (NMP)	2I
924-16-3	N-nitrosodibutylamine	2O
930-55-2	N-nitrosopyrrolidine	2O
933-78-8	2,3,5-trichlorophenol	2J
959-98-8	alpha-Endosulfan	3C
1002-53-5	Dibutyltin (DBT)	2F

CAS Number	Chemical Substance	RSL Section
1024-57-3	Heptachlor epoxide	3C
1163-19-5	Bis(pentabromophenyl) ether, Decabromodiphenyl ether (DecaBDE)	2K, 6D
1303-28-2	Diarsenic pentaoxide	6D
1303-86-2	Diboron trioxide	6D
1336-36-3	Halogenated biphenyls	3D
1582-09-8	Trifluralin	3C
1649-08-7	C ₂ H ₂ F ₂ Cl ₂	4C
1717-00-6	C ₂ H ₃ Cl ₂	4C
1746-01-6	2,3,7,8-Tetrachlorodibenzo- <i>p</i> -dioxin	3A Group 1
1910-42-5	Paraquat	3C
1937-37-7	Disodium 4-amino-3-[[4'-[(2,4-diaminophenyl)azo][1,1'-biphenyl]-4-yl]azo] -5-hydroxy-6-(phenylazo)naphthalene-2,7-disulphonate (C.I. Direct Black 38)	2B, 6D
19750-95-9	Chlordimeform	3C
2354-06-5	C ₃ F ₃ Cl ₅	4B Group 3
2381-21-7	1-Methylpyrene	2H
2385-85-5	Mirex	3C
2425-06-1	Captafol	3C
2475-45-8	Disperse Blue 1	2B
2475-46-9	Disperse Blue 3	2B
2551-62-4	Sulfur hexafluoride - SF ₆	4A
2580-56-5	[4-[[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Blue 26)	6D
2581-69-3	Disperse Orange 1	2B
2602-46-2	Direct Blue 6	2B
2642-71-9	Azinophosethyl	3C
2795-39-3	Perfluorooctane sulfonate (PFOS)	2E
2832-40-8	Disperse Yellow 3	2B
2837-89-0	C ₂ HF ₄ Cl	4C
2872-48-2	Disperse Red 11	2B
2872-52-8	Disperse Red 1	2B
3179-89-3	Disperse Red 17	2B
3179-90-6	Disperse Blue 7	2B
3182-26-1	C ₃ F ₂ Cl ₆	4B Group 3
3194-55-6	Hexabromocyclododecane (HBCDD)	6D
3268-87-9	1,2,3,4,6,7,8,9-Octachlorodibenzo- <i>p</i> -dioxin	3A Group 3
3424-82-6	<i>o,p</i> -Dichlorodiphenyl-dichloroethylene (<i>o,p</i> -DDE)	3C
3761-53-3	Acid Red 26	2B
3825-26-1	Perfluorooctanoic ammonium salt, Ammonium pentadecafluorooctanoate (APFO)	2E, 6D

CAS Number	Chemical Substance	RSL Section
3846-71-7	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	6D
3860-63-7	Disperse Blue 26	2B
4234-79-1	Kelevan	3C
4259-43-2	C ₃ F ₅ Cl ₃	4B Group 3
4824-78-6	Bromophos-ethyl	3C
5412-25-9	Bis (2,3-dibromopropyl) phosphate	2K
6164-98-3	Chlordimeform	3C
6250-23-3	Disperse Yellow 23	2B
6373-73-5	Disperse Yellow 9	2B
6786-83-0	α,α-Bis[4-(dimethylamino)phenyl]-4 (phenylamino)naphthalene-1-methanol (C.I. Basic Violet 3)	6D
6923-22-4	Monocrotophos	3C
7085-19-0	Mecoprop	3C
7125-84-0	C ₃ H ₂ F ₃ Cl ₃	4C
7439-92-1	Lead (Pb)	2C, 2L, 2M
7439-97-6	Mercury (Hg)	2C, 2L, 2M
7440-02-0	Nickel (Ni)	2C
7440-36-0	Antimony (Sb)	2C
7440-38-2	Arsenic (As)	2C
7440-39-3	Barium (Ba)	2C
7440-43-9	Cadmium (Cd)	2C, 2L, 2M
7440-47-3	Chromium (Cr), total	2C
7440-48-4	Cobalt (Co)	2C
7440-50-8	Copper (Cu)	2C
7646-79-9	Cobalt dichloride	6D
7782-49-2	Selenium (Se)	2C
7786-34-7	Phosdrin/Mevinphos	3C
7789-12-0	Sodium dichromate	6D
8001-35-2	Toxaphene	3C
8001-50-1	Strobane	3C
8012-00-8	Pyrochlore, antimony lead yellow	6D
9002-86-2	PVC	2L, 2N
10265-92-6	Metamidophos	3C
10588-01-9	Sodium dichromate	6D
11103-86-9	Potassium hydroxyoctaoxodizincatedichromate	6D
12001-29-5	Chrysotile	3B
12172-73-5	Amosite	3B
12222-75-2	Disperse Blue 35	2B
12222-97-8	Disperse Blue 102	2B
12223-01-7	Disperse Blue 106	2B

CAS Number	Chemical Substance	RSL Section
12223-33-5	Disperse Orange 37/ 59 – 76	2B
12236-29-2	Disperse Yellow 39	2B
13301-61-6	Disperse Orange 37/ 59 – 76	2B
13593-03-8	Quinalphos	3C
13674-84-5	Tris (2-chloroethyl) phosphate (TCPP)	2K
13674-87-8	Tris (1,3-dichloro-2-propyl) phosphate (TDCPP)	2K
14567-73-8	Tremolite	3B
15231-44-4	Dioctyltin (DOT)	2F
15572-58-1	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)	6D
15950-66-0	2,3,4-trichlorophenol	2J
16071-86-6	Direct Brown 95	2B
18540-29-9	Chromium, Hexavalent Cr(VI)	2C, 2L, 2M
19408-74-3	1,2,3,7,8,9-Hexachloro-dibenzo- <i>p</i> -dioxin	3A Group 2
23355-64-8	Disperse Brown 1	2B
25167-83-3	Tetrachlorophenol (TeCP)	2J
25637-99-4	Hexabromocyclododecane (HBCDD)	2K
25973-55-1	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	6D
26040-51-7	Bis (2-ethylhexyl)-2,3,4,5-tetrabromophthalate (TBPH)	2K
26761-40-0	Di-iso-decyl phthalate (DIDP)	2D, 2N
27208-37-3	Cyclopenta[c,d]pyrene	2H
28553-12-0	Di-iso-nonyl phthalate (DINP)	2D, 2N
28777-70-0	Tris (4-tert-butylphenyl) phosphate (TBPP)	2K
29255-31-0	C ₃ F ₄ Cl ₄	4B Group 3
31218-83-4	Propethamphos	3C
32534-81-9	Penta-bromodiphenyl ether (pentaBDE)	2K
32536-52-0	Octa-bromodiphenyl ether (octaBDE)	2K
33213-65-9	beta-Endosulfan	3C
35822-46-9	1,2,3,4,6,7,8-Heptachloro-dibenzo- <i>p</i> -dioxin	3A Group 3
38051-10-4	2,2-Bis(Chloromethyl) Trimethylene Bis[Bis(2-Chloromethyl) phosphate] (V6)	2K
39001-02-0	1,2,3,4,6,7,8,9-Octachlorodibenzofuran	3A Group 3
39227-28-6	1,2,3,4,7,8-Hexachloro-dibenzo- <i>p</i> -dioxin	3A Group 2
40321-76-4	1,2,3,7,8-Pentachloro-dibenzo- <i>p</i> -dioxin	3A Group 1
41198-08-7	Profenophos	3C
49663-84-5	Pentazinc chromate octahydroxide	6D
50585-41-6	2,3,7,8-Tetrabromodibenzo- <i>p</i> -dioxin	3A Group 4
51207-31-9	2,3,7,8-Tetrachlorodibenzofuran	3A Group 1
51630-58-1	Fenvalerate	3C
52315-07-8	Cypermethrin	3C
52918-63-5	Deltamethrin	3C

CAS Number	Chemical Substance	RSL Section
53469-21-9	Polychlorinated biphenyl (PCB)	3D
54824-37-2	Disperse Yellow 49	2B
55673-89-7	1,2,3,4,7,8,9-Heptachlorodibenzofuran	3A Group 3
56573-85-4	Tributyltin (TBT)	2F
56803-37-3	4-(tert-butyl)phenyl diphenyl phosphate (MDPP)	2K
57117-31-4	2,3,4,7,8-Pentachlorodibenzofuran	3A Group 1
57117-41-6	1,2,3,7,8-Pentachlorodibenzofuran	3A Group 2
57117-44-9	1,2,3,6,7,8-Hexachlorodibenzofuran	3A Group 2
57648-21-2	Timiperone (DTTB)	3C
57653-85-7	1,2,3,6,7,8-Hexachloro-dibenzo- <i>p</i> -dioxin	3A Group 2
59536-65-1	Polybrominated biphenyls (PBBs)	2K, 2M
60851-34-5	2,3,4,6,7,8-Hexachlorodibenzofuran	3A Group 2
61951-51-7	Disperse Blue 124	2B
65652-41-7	di-tert-butylphenyl phenyl phosphate (DBPP)	2K
66230-04-4	Esfenvalerate	3C
67562-39-4	1,2,3,4,6,7,8-Heptachlorodibenzofuran	3A Group 3
67933-57-7	2,3,7,8-Tetrabromodibenzofuran	3A Group 4
68141-02-6	Perfluorooctanoic acid (PFOA)	2E
68359-37-5	Cyfluthrin	3C
68515-42-4	Di-heptyl, nonyl, undecyl phthalate (DHNUP)	2D, 2N
68515-48-0	Di-iso-nonyl phthalate (DINP)	2D, 2N
68515-49-1	Di-iso-decyl phthalate (DIDP)	2D, 2N
68515-50-4	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	6D
68515-51-5	1,2-Benzenedicarboxylic acid, di-C6-10-alkyl esters with $\geq 0.3\%$ of dihexyl phthalate	6D
68648-91-1	1,2- Benzenedicarboxylic acid mixed decyl, hexyl and octyl di-ester with $\geq 0.3\%$ of dihexyl phthalate	6D
70648-26-9	1,2,3,4,7,8-Hexachlorodibenzofuran	3A Group 2
71888-89-6	Di-isoheptyl phthalate (DIHP)	2D, 2N
72918-21-9	1,2,3,7,8,9-Hexachlorodibenzofuran	3A Group 2
76253-60-6	Monomethyl-tetrachloro-diphenyl methane	3D
77536-66-4	Actinolite	3B
77536-67-5	Anthophyllite	3B
77536-68-6	Tremolite	3B
81161-70-8	Monomethyl-dichloro-diphenyl methane	3D
84777-06-0	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	2D, 2N, 6D
85136-74-9	Disperse Orange 149	2B
85535-84-8	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	2K, 6D
91465-08-6	Cyhalothrin	3C
99688-47-8	Monomethyl-dibromo-diphenyl methane	3D
107555-93-1	1,2,3,7,8-Pentabromodibenzofuran	3A Group 5

CAS Number	Chemical Substance	RSL Section
109333-34-8	1,2,3,7,8-Pentabromo-dibenzo- <i>p</i> -dioxin	3A Group 4
110999-44-5	1,2,3,4,7,8-Hexabromo-dibenzo- <i>p</i> -dioxin	3A Group 5
110999-45-6	1,2,3,6,7,8-Hexabromo-dibenzo- <i>p</i> -dioxin	3A Group 5
110999-46-7	1,2,3,7,8,9-Hexabromo-dibenzo- <i>p</i> -dioxin	3A Group 5
131166-92-2	2,3,4,7,8-Pentabromodibenzofuran	3A Group 4
132207-33-1	Crocidolite	3B
134190-50-4	C ₃ H ₃ F ₄ Cl	4C
138495-42-8	HFC-43-10mee - C ₅ H ₂ F ₁₀	4A
143860-04-2	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	6D
183658-27-7	2-Ethylhexyl 2,3,4,5-Tetrabromobenzoate (TBB)	2K
776297-69-9	N-pentyl-iso-pentyl phthalate (NPIPP)	2D, 2N, 6D