

CAMELBAK

**SUSTAINABLE CHEMICALS
MANAGEMENT POLICY &
RESTRICTED SUBSTANCES LIST (“RSL”)**

JUNE 2020



2000 South McDowell Blvd., Suite 200
Petaluma, CA 94954

Dear Partners,

CamelBak believes that it is our responsibility to create the safest, best-performing products possible for our customers and factory workers around the globe.

The following Restricted Substances List (RSL) document specifies the chemical restrictions applicable to substances and materials used in manufacturing CamelBak materials, components, products and packaging. The RSL is based on the bluesign® technologies AG chemicals management system, current legal restrictions in major markets, inputs from key stakeholders, and additional requirements voluntarily adopted by CamelBak.

This RSL also outlines the responsibilities of suppliers to CamelBak and applies to any materials used in production or incorporated into a CamelBak product, whether specified by our product team or selected by our factories.

We expect any supplier to carefully review this document, to implement or maintain management processes to comply with these requirements, and to communicate this information to internal teams and business partners. CamelBak reserves the right to periodically audit compliance to these requirements. The latest version of this RSL is posted on our website. We expect all our suppliers to periodically check and assure they and their suppliers' are in compliance to any updates or revisions.

Thank you for your continuing partnership and your cooperation is ensuring that all CamelBak products meet the high expectations of our consumers and customers.

Sincerely,

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CamelBak Products, LLC

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June 1, 2020

Priority Chemicals

While there are many chemicals that are referenced in our Restricted Substances List (RSL) that are regulated by the appropriate governments and standards organizations, we feel that certain high priority chemicals should be treated with even more caution. We have decided to voluntarily eliminate the following chemicals from our products or factories even though this exceeds any regulatory requirements.

Bisphenols – BPA / BPS / BPF

Camelbak prohibits the use of any bisphenol substance in our products or in the factories that manufacture our products. We test our products regularly to ensure that these chemicals are never in our products.

Polyvinyl chloride - PVC

CamelBak has eliminated the use of PVC from all products because of the evidence for environmental damage and human health risks from manufacturing the plastic.

Long-chain perfluoroalkyl substances - PFAS or PFC

CamelBak prohibits the use of water repellent treatments (DWRs) made from long-chain perfluoroalkyl substances. These substances include PFOS, PFOA, and others with 8 or more Carbon atoms (also known collectively as C8). We are working towards chemistries and constructions that eliminate the need for fluorinated compounds in our products.

1 Definitions

1.1 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 (fibers, textile fabrics, buttons, zippers, etc.).

1.2 CAS

CAS registry numbers are unique numerical identifiers for chemical elements, compounds, polymers, biological sequences, mixtures and alloys. Chemical Abstracts Service (CAS), a division of the American Chemical Society, assigns these identifiers to every chemical that has been described in the literature. The intention is to make database searches more convenient, as chemicals often have many names. Almost all molecule databases today allow searching by CAS number.

1.3 Chemical substance

A chemical element and its compounds with constant composition and properties. It is defined by the CAS number.

1.4 Detection limit (DL)

The detection limit is the lowest quantity of a substance that can be distinguished from the absence of that substance following a prescribed analytical method.

1.5 Limit value

The maximum amount of chemical substances permitted in articles for the usage ranges A, B and C.

1.6 Several

Several means, that the whole substance group is restricted although not all substances that are restricted are explicitly listed. The listed examples represent only those substances, which should be considered if substance group is intended for testing.

1.7 Traces

Although there is a ban for a chemical substance, residual amounts of this substance may be contained in a product from a non-intended source. In this case, a limit is defined to minimize these currently unavoidable traces.

1.8 Usage ban

For several chemical substances or substance groups a usage ban is defined. For these substances or substance groups intentional use in manufacturing of articles is prohibited. That means that chemical products (e.g. colorants or textile auxiliaries) used for manufacturing of articles must not intentionally contain these substances or substance groups.

The aim of a usage ban is to avoid release of harmful substances to the environment and to avoid occurrence in the manufactured article by applying the precautionary principle.

1.9 Usage range

Usage ranges classify consumer goods according to their consumer safety relevance.

Three usage ranges (A, B, C) are defined with A being the most stringent category concerning limit values/bans:

- Usage Range A: Next to skin use and baby articles (0 to 3 years)
- Usage Range B: Occasional skin contact
- Usage Range C: No skin contact

2 Scope

The document specifies restrictions (limits and bans) for chemical substances in

- articles made of textile and leather
- accessories for textile and leather articles

2.1 Application

The limits and restrictions have to be applied for each individual component of an intermediate or finished article. A component is each part of an article that can be distinguished according to the material composition and/or functionality and/or color and is easily mechanically separated from other components.

3 Testing methods

The testing methods listed in the last column of the table in chapter 4 are the recommended ones. The testing methods column consists of two entries: sample preparation, e.g. extraction, digestion, derivatisation and the test method, i.e. the actual measurement.

Depending on their availability international or national standards are also given for several substances and these methods maybe applied. Other accredited methods can only be applied if it can be verified that equivalent results are obtained.

Details of the respective sample preparation methods can be found in the table below:

Sample preparation	Solvent(s)	Temperature (°C)	Time (min)	Other requirements
Extraction with KOH	Potassium hydroxide (1M)	90	Over night	Derivatisation with Acetic anhydride
Extraction with MeOH	Methanol	70	60	Ultrasonic bath
Extraction with THF	Tetrahydrofuran	40	60	
Extraction with DCM	Dichloromethane	40	60	Ultrasonic bath
Extraction with MTBE	Methyl tert-butyl ether	60	60	Ultrasonic bath
Extraction with MeOH/Acetonitrile	Methanol/Acetonitrile (1:1)	70	30	Ultrasonic bath
ASE - Accelerated Solvent Extraction	Acetone/Hexane (1:1)	100	-	
ASE - Accelerated Solvent Extraction	Ethyl acetate	40	-	
Soxhlet Extraction	Acetone/Hexane (1:1)	-	480	
Headspace	-	120	45	
DIN EN ISO 105-E04 (2013)	Acid sweat solution	37	60	Textile to liquor ratio 1:50

For headspace measurements a purge & trap gas chromatography is recommended.

4 Restricted parameters and substances

PARAMETER	LIMIT [mg/kg]			RECOMMENDED SAMPLE PREPARATION // TEST METHOD
	A	B	C	
pH	Non-leather products:			ISO 3071 (2005)
	4.0-7.5			
	Leather products:			ISO 4045 (2008)
	3.5-7.5			
Odor	No unpleasant odor shall be emitted from the products			SNV 195 651
Color Fastness Properties				
Color fastness to perspiration	Textiles dyed with disperse or metal complex dyes: at least 3 – 4, the goal is > 4			ISO 105-E04 (2013)
Color fastness to saliva and perspiration	Fast			§64 LFGB BVL B 82.10-1

APPENDIX	RESTRICTED SUBSTANCE	LIMIT [mg/kg]	RECOMMENDED SAMPLE PREPARATION // TEST METHOD	REFERENCE
	QUALITY PARAMETER			
	pH	Non-leather products: 4.0-7.5, Leather products: 3.5-7.5	ISO 3071 (2005), ISO 4045 (2008)	REI RSL, bluesign RSL
APPENDIX	RESTRICTED SUBSTANCE	LIMIT [mg/kg]	RECOMMENDED SAMPLE PREPARATION // TEST METHOD	REFERENCE
	Aldehydes			
	Formaldehyde (CAS 50-00-0)	Limit A: DL (15) Limit B: 75 Limit C: 300	Textile: ISO 14184-1 (2011), Leather: ISO 17226-1 (2008) or ISO 17226-2 (2008)	REI RSL, bluesign RSL
A	Alkylphenols (APs) and Alkylphenoethoxylates (APEOs)	10 for each Alkylphenol, Usage ban 100 for each Alkylphenoethoxylates	Textile: ISO 18254-1 (2016), Leather: ISO 18218-1 (2015)	REI RSL, bluesign RSL
	Amines			
	PAA's (primary aromatic amines)	All plastics limit: 0.01 ppm (measured as content extracted in solvent)	EN 10/2011, EN 13130-1	CamelBak RSL
	Aniline (CAS 62-53-3)	Limit: 30	Extraction with MeOH // GC-MS or HPLC	REI RSL, bluesign RSL
B	Arylamines (including corresponding salts; as substance for example in PU, and as decomposition product of azo colorants which, by reductive cleavage of one or more azo groups, may release one or more of the aromatic amines)	DL: 20	Textile: EN 14362-1 (2017), EN 14362-3 (2017) Leather: EN ISO 17234-1 (2015), EN ISO 17234-2 (2011) (for azo colorants which may release 4-Aminoazobenzene)	REI RSL, bluesign RSL
C	Asbestos	Usage ban	REM/EDX BGI 505-46 or U.S. EPA/600/R-93/116	REI RSL, bluesign RSL
D	Chlorinated Benzenes and Toluenes	DL: 1.0, Sum of all: 5.0	DIN 54232 (2010)	REI RSL, bluesign RSL
E	Chlorinated Phenols			
	Monochlorophenols (MonoCP), all isomers (CAS 25167-80-0)	Sum of all Mono- and DiCPs: Limit A: 1.0 Limit B: 1.0 Limit C: 1.0	Extraction with KOH // § 64 LFGB B 82.02-8 (2001) or DIN EN ISO 17070 (2015)	REI RSL, bluesign RSL
	Dichlorophenols (DiCP), all isomers (CAS 25167-81-1)	Sum of all Mono- and DiCPs: Limit A: 1.0 Limit B: 1.0 Limit C: 1.0	Extraction with KOH // § 64 LFGB B 82.02-8 (2001) or DIN EN ISO 17070 (2015)	REI RSL, bluesign RSL
	Trichlorophenols (TriCP), all isomers (CAS 25167-82-2)	Sum of each group of TriCPs, TeCPs, PCPs: Limit A: 0.05 Limit B: 0.5 Limit C: 0.5	Extraction with KOH // § 64 LFGB B 82.02-8 (2001) or DIN EN ISO 17070 (2015)	REI RSL, bluesign RSL
	Tetrachlorophenols (TeCP), salts and compounds (CAS 25167-83-3)	Sum of each group of TriCPs, TeCPs, PCPs: Limit A: 0.05 Limit B: 0.5 Limit C: 0.5	Extraction with KOH // § 64 LFGB B 82.02-8 (2001) or DIN EN ISO 17070 (2015)	REI RSL, bluesign RSL
	Pentachlorophenol (PCP), salts, esters and compounds (CAS 87-86-5)		Extraction with KOH // § 64 LFGB B 82.02-8 (2001) or DIN EN ISO 17070 (2015)	REI RSL, bluesign RSL
	Colorants			
F	Colorants with carcinogenic potential	DL: 20	DIN 54231	REI RSL, bluesign RSL
G	Colorants with allergenic potential	DL: 20	DIN 54231	REI RSL, bluesign RSL
H	Colorants banned for other reasons	DL: 20	DIN 54231	REI RSL, bluesign RSL
I	Dioxins and Furans			
	Group 1	Limit: Sum of group 1: 1.0 [µg/kg]	EPA 8290A	REI RSL, bluesign RSL
	Group 2	Limit: Sum of group 1 and 2: 5.0 [µg/kg]	EPA 8290A	REI RSL, bluesign RSL
	Group 3	Limit: Sum of group 1, 2 and 3: 100 [µg/kg]	EPA 8290A	REI RSL, bluesign RSL
	Group 4	Limit: Sum of group 4: 1.0 [µg/kg]	EPA 8290A	REI RSL, bluesign RSL
	Group 5	Limit: Sum of group 4 and 5: 5.0 [µg/kg]	EPA 8290A	REI RSL, bluesign RSL
J	Flame retardants	DL: 5.0 Chlorinated paraffins in leather: Usage ban Traces: 100	ISO 17881-1 (2016) for brominated flame retardants, ISO 17881-2 (2016) for phosphorus flame retardants	REI RSL, bluesign RSL
K	Fluorinated Greenhouse Gases	DL: 0.1	Headspace GC-MS	REI RSL, bluesign RSL

Fluorinated Substances			
Perfluorooctane sulfonic acid / Perfluorooctane sulfonate (PFOS)* (CAS 1763-23-1)	1.0 [µg/m2]	CEN/TS 15968 (2014)	REI RSL, bluesign RSL
Perfluorocarboxylic acid and salts			
PFHxA (CAS 307-24-4)	Limit: 0.05	CEN/TS 15968 (2014)	REI RSL, bluesign RSL
PFOA** (CAS 335-67-1)	Traces: 25 [µg/kg]	CEN/TS 15968 (2014)	REI RSL, bluesign RSL
PFOA-related substances	Several	CEN/TS 15968 (2014)	REI RSL, bluesign RSL
Heptadecafluoro-1-iodooctane** (CAS 507-63-1)	Traces: 1000 [µg/kg] (for the sum of PFOA-related substances)	CEN/TS 15968 (2014)	REI RSL, bluesign RSL
1H,1H,2H,2H- Perfluorodecylidide** (CAS 2043-53- 0)	Traces: 1000 [µg/kg] (for the sum of PFOA-related substances)	CEN/TS 15968 (2014)	REI RSL, bluesign RSL
8:2 FTOH, Perfluorooctylethanol** (CAS 678-39-7)	Traces: 1000 [µg/kg] (for the sum of PFOA-related substances)	Extraction with MTBE // GC-MS	REI RSL, bluesign RSL
Perfluorooctylethene** (CAS 21652-58-4)	Traces: 1000 [µg/kg] (for the sum of PFOA-related substances)	ASE with Ethyl acetate // GC-MS or LC-MS	REI RSL, bluesign RSL
Perfluorooctylethyl acrylate or methacrylate**	Traces: 1000 [µg/kg] (for the sum of PFOA-related substances)	Extraction with MTBE // GC-MS	REI RSL, bluesign RSL

*Ban on long-chain compounds in manufacturing based on long-chain electrofluorination chemistry (C6 and higher).

**Phase-out of long-chain compounds in manufacturing based on long-chain telomer chemistry (C8 and higher) until end of 2014.

APPENDIX	RESTRICTED SUBSTANCE	LIMIT [mg/kg]	RECOMMENDED SAMPLE PREPARATION // TEST METHOD	REFERENCE
	Glycols			
	Bis(2-methoxyethyl)-ether (CAS 111-96-6)	DL:5.0	Textile: Extraction with MeOH // GC-MS, Plastic: 2-Step extraction with THF and MeOH // GC-MS	REI RSL, bluesign RSL
	2-Ethoxyethanol (CAS 110-80-5)	DL:5.0	Textile: Extraction with MeOH // GC-MS, Plastic: 2-Step extraction with THF and MeOH // GC-MS	REI RSL, bluesign RSL
	2-Ethoxyethyl acetate (CAS 111-15-9)	DL:5.0	Textile: Extraction with MeOH // GC-MS, Plastic: 2-Step extraction with THF and MeOH // GC-MS	REI RSL, bluesign RSL
	Ethylene glycol dimethyl ether (CAS 110-71-4)	DL:5.0	Textile: Extraction with MeOH // GC-MS, Plastic: 2-Step extraction with THF and MeOH // GC-MS	REI RSL, bluesign RSL
	2-Methoxyethanol (CAS 109-86-4)	DL:5.0	Textile: Extraction with MeOH // GC-MS, Plastic: 2-Step extraction with THF and MeOH // GC-MS	REI RSL, bluesign RSL
	2-Methoxyethylacetate (CAS 110-49-6)	DL:5.0	Textile: Extraction with MeOH // GC-MS, Plastic: 2-Step extraction with THF and MeOH // GC-MS	REI RSL, bluesign RSL
	2-Methoxy-1-propanol (CAS 1589-47-5)	DL:5.0	Textile: Extraction with MeOH // GC-MS, Plastic: 2-Step extraction with THF and MeOH // GC-MS	REI RSL, bluesign RSL
	2-Methoxypropylacetate (CAS 70657-70-4)	DL:5.0	Textile: Extraction with MeOH // GC-MS, Plastic: 2-Step extraction with THF and MeOH // GC-MS	REI RSL, bluesign RSL
	Triethylene glycol dimethyl ether (CAS 112-49-2)	DL:5.0	Textile: Extraction with MeOH // GC-MS, Plastic: 2-Step extraction with THF and MeOH // GC-MS	REI RSL, bluesign RSL
L	Halogenated Biphenyls, halogenated Terphenyls, halogenated Naphthalenes	DL: 1.0, DL: 5.0 (PBBs)	ISO 17881-1 (2016)	REI RSL, bluesign RSL
M	Halogenated Diarylalkanes	Usage ban DL: 1.0	Extraction following IEC 62321-6 (2015) // GC-MS	REI RSL, bluesign RSL
N	Isocyanates	Free content Sum of all: 1.0	EN 13130-8 (2004)	REI RSL, bluesign RSL
APPENDIX	RESTRICTED SUBSTANCE	LIMIT [mg/kg]	RECOMMENDED SAMPLE PREPARATION // TEST METHOD	REFERENCE
	METALS (EXTRACTABLE CONTENT)			
	Aluminum	All paints/inks limit: 1406 ppm (measured as content in ink/paint)	EN 71-3 Section 4 and 8	CamelBak RSL
		All plastics limit: 1 ppm (measured as content extracted in solvent)	EN 10/2011 Annex I, EN 13130-1	
	Antimony (Sb) (CAS 7440-36-0)	Textiles and leather Limit A: 5, Limit B: 10, Limit C: 10 Metal parts and non-metal parts other than textiles and leather Limit: 60	Textiles: DIN EN 16711-2 (2016) (acidic sweat solution) Leather: ISO 17072-1 (2011) (acidic sweat solution) Metal parts and non-metal parts other than textiles and leather: EN 71-3 (2013) (acidic solution simulating gastric juices) // ISO 17294-2 (2106) or DIN EN ISO 11885 (2009)	REI RSL, bluesign RSL
		All plastics limit: 11.3 (measured as content in ink/paint)	EN 71-3 Section 4 and 8	CamelBak RSL
		All plastics limit: 15 ppm (measured as content extracted in solvent)	EN 14350-2 section 4.4 Table 2, EN 71-3 Section 8	CamelBak RSL

Arsenic (As) (CAS 7440-38-2)	Limit: Traces: 0.2	Textiles and others: DIN EN 16711-2 (2016) (acidic sweat solution) Leather: ISO 17072-1 (2011) (acidic sweat solution)	REI RSL, bluesign RSL
	All plastics limit: 0.9 ppm (measured as content in ink/paint)	EN 71-3 Section 4 and 8	CamelBak RSL
	All plastics limit: 10 ppm (measured as content extracted in solvent)	EN 14350-2 section 4.4 Table 2, EN 71-3 Section 8	CamelBak RSL
Barium	All Paints/inks limit: 375 ppm (measured as content in ink/paint)	EN 71-3 Section 4, EN 71-3 Section 8	CamelBak RSL
	All Plastics: 1 ppm (measured as content extracted in solvent)	EN 10/2011 Annex I, EN 13130-1	CamelBak RSL
Cadmium (Cd) (CAS 7440-43-9)	Non-metal parts (textiles, leather and others) Limit: Traces: 0.1	Textiles and others: DIN EN 16711-2 (2016) (acidic sweat solution) Leather: ISO 17072-1 (2011) (acidic sweat solution)	REI RSL, bluesign RSL
	All plastics limit: 0.3 ppm (measured as content in ink/paint)	EN 14350-2 section 4.4 Table 2, EN 71-3 Section 8	CamelBak RSL
	All plastics limit: 20 ppm (measured as content extracted in solvent)	EN 14350-2 section 4.4 Table 2, EN 71-3 Section 8	CamelBak RSL
Chromium (Cr) (CAS 7440-47-3)	Textiles: Limit: 0.5 For textiles dyed with chromium containing metal complex dyes: Limit A: 1.0, Limit B: 2.0, Limit C: 2.0 Non-metal parts other than textiles and leather: Limit: 60 If products are covered with a metal layer, including a chromium layer, coating must be constantly in good condition Leather: no regulation	Textiles: DIN EN 16711-2 (2016) (acidic sweat solution) Non-metal parts other than textiles and leather: EN 71-3 (2013) (acid solution simulating gastric juices) // ISO 17294-2 (2016) or DIN EN ISO 11885 (2009)	REI RSL, bluesign RSL
	All plastics limit: 10 ppm (measured as content extracted in solvent)	EN 14350-2 section 4.4 Table 2, EN 71-3 Section 8	CamelBak RSL
Chromium III	All Paints/inks limit: 9.4 ppm (measured as content in ink/paint)	EN 71-3 Section 4, EN 71-3 Section 8	CamelBak RSL
Chromium IV	All Paints/inks limit: .005 ppm (measured as content in ink/paint)	EN 71-3 Section 4, EN 71-3 Section 8	CamelBak RSL
Chromium (VI) (CAS 18540-29-9)	Metal parts and non-metal parts other than leather: DL: 0.5, Leather: DL: 0.3	Metal parts and non-metal parts other than leather: EN ISO 17075-1 or -2 (2017) Leather: DIN EN ISO 4044 (2017) // EN ISO 17075-1 (2017) or EN ISO 17075-2 (2017-05)	REI RSL, bluesign RSL
Cobalt (Co) (CAS 7440-48-4)	Textiles and Leather: Leather: 1.0, For textiles and leather dyed with cobalt containing metal complex dyes: Limit A: 1.0, Limit B: 4.0, Limit C: 4.0, Metal parts and non-metal parts other than leather Limit A: 1.0, Limit B: 4.0, Limit C: 4.0	Textiles and others: DIN EN 16711-2 (2016) (acidic sweat solution) Leather: ISO 17072-1 (2011) (acidic sweat solution)	REI RSL, bluesign RSL
	Food contact plastics limit: 2.6 ppm (measured as content in ink/paint)	EN 71-3 Section 4 and 8	CamelBak RSL
	Food contact plastics limit: 0.05 ppm (measured as content extracted in solvent)	EN 10/2011 Annex I, EN 13130-1	CamelBak RSL
Copper (Cu) (CAS 7440-50-8)	For textiles and leather (including metal complex dyed materials) Limit A: 25, Limit B: 50, Limit C: 50. Non-metal parts others than textiles and leather: No regulation	Textiles and others: DIN EN 16711-2 (2016) (acidic sweat solution) Leather: ISO 17072-1 (2011) (acidic sweat solution)	REI RSL, bluesign RSL
	Food contact plastics limit: 5 ppm (measured as content extracted in solvent)	EN 10/2011 Annex I, EN 13130-1	CamelBak RSL
	Food contact plastics limit: 156 ppm (measured as content in ink/paint)	EN 71-3 Section 4 and 8	CamelBak RSL
Iron	All Plastics limit: 48 ppm (measured as content extracted in solvent)	EN 10/2011 Annex I, EN 13130-1	CamelBak RSL
Lithium	All Plastics limit: 0.6 ppm (measured as content extracted in solvent)	EN 10/2011 Annex I, EN 13130-1	CamelBak RSL
Lead (Pb) (CAS 7439-92-1)	For textiles, plastics and leather: Limit A: 0.2, Limit B: 1.0, Limit C: 1.0,	Textiles and others: DIN EN 16711-2 (2016) (acidic sweat solution) Leather: ISO 17072-1 (2011) (acidic sweat solution)	REI RSL, bluesign RSL
	All paints/inks: 3.4ppm (measured as content in ink/paint)	EN 71-3 Section 4 and 8	CamelBak RSL
	All paints/inks for childrens products: 90 ppm (measured as content in ink/paint)	US CPSC 21 CFR Part 1303.1, CPSC-CH-E1003-09.1	CamelBak RSL
	All plastics limit: 25 ppm (measured as content extracted in solvent)	EN 14350-2 section 4.4 Table 2, EN 71-3 Section 8	CamelBak RSL
	All plastics for childrens product limit: 100 ppm (measured as content in plastic)	US CPSIA 2008, Title I Section 101, CPSC-CH-E1002-08.3	

	Manganese	All Paint/Ink limit: 300 ppm (measured as content extracted in ink/paint)	EN 71-3 Section 4 and 8	CamelBak RSL
		All Plastics limit: .6 ppm (measured as content extracted in solvent)	EN 10/2011 Annex I, EN 13130-1	CamelBak RSL
	Mercury (Hg) (CAS 7439-97-6)	Non-metal Parts Limit: Traces: 0.02 Metal Parts Limit: Traces 60	Textiles and others: DIN EN 16711-2 (2016) (acidic sweat solution) Leather: ISO 17072-1 (2011) (acidic sweat solution) Metal parts: EN 71-3 (2013) (acidic solution simulating gastric juices) // ISO 12846 (2012)	REI RSL, bluesign RSL
		All plastics limit: 1.9 ppm (measured as content in ink/paint)	EN 71-3 Section 4 and 8	CamelBak RSL
		All plastics limit: 10ppm (measured as content extracted in solvent)	EN 14350-2 section 4.4 Table 2, EN 71-3 Section 8	CamelBak RSL
	Nickel (Ni) (CAS 7440-02-0)	Textiles and Leather: Limit: 1.0 For textiles and leather dyed with nickel containing metal complex dyes: Limit A: 1.0, Limit B: 4.0, Limit C: 4.0, Metal parts and non-metal parts other than textiles and leather: A and B: 0.5 [$\mu\text{g}/\text{cm}^2/\text{week}$]	Textiles and others: DIN EN 16711-2 (2016) (acidic sweat solution) Leather: ISO 17072-1 (2011) (acidic sweat solution) Metal parts and non-metal parts other than textiles and leather: Release EN 12472 (2005)+A1(2009) // EN 1811 (2011)+A1(2015)	REI RSL, bluesign RSL
		All paints/inks: 18.8 ppm (measured as content in ink/paint)	EN 71-3 Section 4 and 8	CamelBak RSL
		Food contact plastics limit: 0.02 (measured as content extracted in solvent)	EN 10/2011 Annex I, EN 13130-1	CamelBak RSL
	Total Cadmium (Cd)	Non-metal parts (textiles, leather and others) Limit: Traces: 40, Metal parts: Limit: Traces: 40	Textiles and others: DIN EN 16711-1 (2016) (total content) Leather: ISO 17072-2 (2011) (total content) Metal parts: DIN EN 16711-1 (2016) (total content)	REI RSL, bluesign RSL
	Tin	All paints/inks limit: 3750 ppm (measured as content in ink/paint)	EN 71-3 Section 4 and 8	CamelBak RSL
	Tin organic compounds (Organotins)	Textiles, plastics and leather Limit: Traces: 40 Metal parts limit: Traces: 90	Textiles and others: DIN EN 16711-1 (2016) (total content), Leather: ISO 17072-2 (2011) (total content) Metal Parts: DIN EN 16711-1 (2016) (total content)	REI RSL, bluesign RSL
		All paint/ink limit 0.2 ppm (measured as content in ink/paint)	EN 71-3, Section 4, EN 71-3 Section 8	CamelBak RSL
	Selenium	All Plastics limit: 100 ppm (measured as content extracted in solvent)	EN 14350-2 section 4.4, EN 71-3 Section 8	CamelBak RSL
		All paints/inks limit: 9.4 ppm (measured as content in ink/paint)	EN 71-3 Section 4 and 8	CamelBak RSL
	Strontium	All paints/inks limit: 1125 ppm (measured as content in ink/paint)	EN 71-3 Section 4 and 8	CamelBak RSL
	Zinc	All Plastics limit: 5 ppm (measured as content extracted in solvent)	EN 10/2011 Annex I, EN 13130-1	CamelBak RSL
		All Plastics limit: 938 ppm (measured as content in ink/paint)	EN 71-3 Section 4 and 8	CamelBak RSL
APPENDIX	RESTRICTED SUBSTANCE	LIMIT [mg/kg]	RECOMMENDED SAMPLE PREPARATION // TEST METHOD	REFERENCE
	Monomers			
	Acrylamide (CAS 79-06-1)	1.0	Textile: Extraction with MeOH // HPLC Plastic: 2-Step extraction with THF and MeOH // HPLC	REI RSL, bluesign RSL
	Other Chemical Substances			
	Acetophenone (CAS 98-86-2)	Limit: 20	Extraction with MeOH // GC-MS	REI RSL, bluesign RSL
	Acrylonitrile	All Plastics limit: .01 ppm (measured as content extracted in solvent)	EU 10/2011	CamelBak RSL
	Bisphenol A (CAS 80-05-7)	All Plastics limit: .1 ppm (measured as content in plastic)	CamelBak In-house method	
		For textile finishing DL: 1.0 For Accessories: 50	Extraction with MeOH // ISO 18857-2 (2009)	CamelBak RSL
	BPF (bisphenol F)	All Plastics limit: 1 ppm (measured as content in plastic)	CamelBak In-house method	CamelBak RSL
	BPS (bisphenol S)	All Plastics limit: 1 ppm (measured as content in plastic)	CamelBak In-house method	CamelBak RSL
	Boron	All paint/ink limit: 300 ppm (measured as content in ink/paint)	EN 71-3, Section 4, EN 71-3 Section 8	CamelBak RSL
	Chloroform	All plastics limit: 50 ppm (measured as content extracted in solvent)	US FDA 21 CFR Part 177.1210, 21 CFR Part 175.300, Section (e)	CamelBak RSL
	Cresol, all isomers (CAS 1319-77-3)	Usage ban DL:10	Extraction with KOH // § 64 LFGB B 82.02-8 (2001) or DIN EN ISO 17070 (2015)	REI RSL, bluesign RSL
	m-Cresol (CAS 108-39-4)	Usage ban DL:10	Extraction with KOH // § 64 LFGB B 82.02-8 (2001) or DIN EN ISO 17070 (2015)	REI RSL, bluesign RSL

	o-Cresol (CAS 95-48-7)	Usage ban DL:10	Extraction with KOH // § 64 LFGB B 82.02-8 (2001) or DIN EN ISO 17070 (2015)	REI RSL, bluesign RSL
	p-Cresol (CAS 106-44-5)	Usage ban DL:10	For textiles: Extraction with KOH // § 64 LFGB B 82.02-8 (2001) or DIN EN ISO 17070 (2015) For Leather: ISO 13365 (2011)	REI RSL, bluesign RSL
	Dimethylfumarate (CAS 624-49-7)	Usage ban DL:10	ISO/TS 16186 (2012) // GC-MS	REI RSL, bluesign RSL
	Formamide (CAS 75-12-7)	Usage ban Limit A: 50 Limit B: 50, Limit C: 100	Extraction with MeOH* // GC-MS, *Cut the samples into small pieces (2x2mm)	REI RSL, bluesign RSL
	o-Phenylphenol (CAS 90-43-7)	For textiles: Limit A: 50 Limit B: 50, Limit C: 50 For Leather: Limit A: 50 Limit B: 100, Limit C: 200	For textiles: Extraction with KOH // § 64 LFGB B 82.02-8 (2001) or DIN EN ISO 17070 (2015) For Leather: ISO 13365 (2011)	REI RSL, bluesign RSL
	2-Phenyl-2-propanol (CAS 617-94-7)	Limit A: 1.0, Limit B: 10, Limit C: 10	Extraction with MeOH // GC-MS	REI RSL, bluesign RSL
	Phenol (CAS 108-95-2)	Limit: 10	Extraction with MeOH // GC-MS or HPLC	REI RSL, bluesign RSL
	Quinoline (CAS 91-22-5)	Limit: 50	Extraction with Methanol or THF // HPLC-MS/MS or HPLC-DAD	REI RSL, bluesign RSL
O	Ozone Depleting Substances	For direct use in manufacturing of articles: DL: 0.1	Headspace GC-MS	REI RSL, bluesign RSL
P	Pesticides	0.5 applies to sum of pesticides	ASE or Soxhlet Extraction with Acetone/Hexane // GC-MS or LC-MC	REI RSL, bluesign RSL
Q	Plasticizers	50	ISO 14389 (2014)	REI RSL, bluesign RSL
	DBP (dibutyl phthalate)	All plastics limit: 0.01% (measured as content in plastic)	EC 1907-2006, REACH Annex XVII, EN 14372:2004, (GC-MS)	CamelBak RSL
	DEHP (di-(2-ethylhexyl) phthalate)	All plastics limit: 0.01% (measured as content in plastic)	EC 1907-2006, REACH Annex XVII, EN 14372:2004, (GC-MS)	CamelBak RSL
	DIDP (di-iso-decyl phthalate)	All plastics limit: 0.01% (measured as content in plastic)	EC 1907-2006, REACH Annex XVII, EN 14372:2004, (GC-MS)	CamelBak RSL
	DINP (di-iso-nonyl phthalate)	All plastics limit: 0.01% (measured as content in plastic)	EC 1907-2006, REACH Annex XVII, EN 14372:2004, (GC-MS)	CamelBak RSL
	DNOP (di-n-octyl phthalate)	All plastics limit: 0.01% (measured as content in plastic)	EC 1907-2006, REACH Annex XVII, EN 14372:2004, (GC-MS)	CamelBak RSL
	BBP (benzylbutyl phthalate)	All plastics limit: 0.01% (measured as content in plastic)	EC 1907-2006, "REACH" Annex XVII, EN 14372:2004, (GC-MS)	CamelBak RSL
R	Polyaromatic Hydrocarbons (PAHs)	Limit: Sum of all PAHs: 10, Benzo(a)pyrene: 0.2, PAHs marked with (*): Limit A: 0.5, Limit B: 1.0, Limit C: 1.0	EPA 8310 EPA 8270D EPA 8275A, AfPS GS 2014:01	REI RSL, bluesign RSL
	Polymers			
	Polyvinyl chloride (PVC) (CAS 9002-86-2)	A and B: Not detected	Beilstein test* // FTIR *FTIR measurement only if result of Beilstein test was positive	REI RSL, bluesign RSL
	Solvents			
	Benzene (71-43-2)	DL: 5.0	VDA 278 (2011)	REI RSL, bluesign RSL
	1,2-Dichloroethane (CAS 107-06-2)	DL: 1.0	Headspace GC-MS	REI RSL, bluesign RSL
	Dichloromethane (CAS 75-09-2)	DL: 5.0	Headspace GC-MS	REI RSL, bluesign RSL
	N,N-Dimethylacetamide (DMAc) (CAS 127-19-5)	Usage ban with exception of fiber manufacturing DL: 5.0 Fiber manufacturing (residual fiber solvent) A: 10, Limit B: 50, Limit C: 50	CEN ISO/TS 16189 (2013)	REI RSL, bluesign RSL
	N,N-Dimethylformamide (DMF) (CAS 68-12-2)	Usage ban with exception of solvent coating and fiber manufacturing Limit: DL: 5.0 Limits for solvent coating and fiber manufacturing (residual fiber solvent): Limit: 50	CEN ISO/TS 16189 (2013)	REI RSL, bluesign RSL
	N-Ethyl-2-pyrrolidone (NEP) (CAS 2687-91-4)	Usage ban Traces: Limit A: 10 Limit B: 10 Limit C: 100	CEN ISO/TS 16189 (2013)	REI RSL, bluesign RSL
	N-Methylpyrrolidone (NMP) (CAS 872-50-4)	Traces: Limit A: 10 Limit B: 10 Limit C: 100	CEN ISO/TS 16189 (2013)	REI RSL, bluesign RSL
	Tetrachloroethylene (Perchloroethylene) (CAS 127-18-4)	DL: 1.0	Headspace GC-MS	REI RSL, bluesign RSL
	Toluene (CAS 108-88-3)	Limit A: 10 Limit B: 50 Limit C: 50	Headspace GC-MS	REI RSL, bluesign RSL
	Trichloroethylene (CAS 79-01-6)	DL: 5.0	Headspace GC-MS	REI RSL, bluesign RSL
	Xylene, all isomers (CAS 1330-20-7)	Textile finishing Limit: Traces DL: 1.0	Headspace GC-MS	REI RSL, bluesign RSL

m-Xylene (CAS 108-38-3)	Non-Textile article Limit: Traces 1.0	Headspace GC-MS	REI RSL, bluesign RSL
o-Xylene (CAS 95-47-6)	Non-Textile article Limit: Traces 1.0	Headspace GC-MS	REI RSL, bluesign RSL
p-Xylene (CAS 106-42-3)	Non-Textile article Limit: Traces 1.0	Headspace GC-MS	REI RSL, bluesign RSL
Tin organic compounds (Organotins)	Usage Ban	ISO/TS 16179 (2012)	REI RSL, bluesign RSL
Monomethyltin compounds (MMT)	Limit: 2.0	ISO/TS 16179 (2012)	REI RSL, bluesign RSL
Monobutyltin compounds (MBT)	Limit: 1.0	ISO/TS 16179 (2012)	REI RSL, bluesign RSL
Monophenyltin compounds (MPHT)	Limit: 1.0	ISO/TS 16179 (2012)	REI RSL, bluesign RSL
Monooctyltin compounds (MOT)	Limit: 2.0	ISO/TS 16179 (2012)	REI RSL, bluesign RSL
Dimethyltin compounds (DMT)	DL: 5.0	ISO/TS 16179 (2012)	REI RSL, bluesign RSL
Dipropyltin compounds (DPT)	Limit: 1.0	ISO/TS 16179 (2012)	REI RSL, bluesign RSL
Dibutyltin compounds (DBT)	Limit: 1.0	ISO/TS 16179 (2012)	REI RSL, bluesign RSL
Diphenyltin compounds (DPHT)	Limit: 2.0	ISO/TS 16179 (2012)	REI RSL, bluesign RSL
Diocetyl tin compounds (DOT)	Limit: 1.0	ISO/TS 16179 (2012)	REI RSL, bluesign RSL
Trimethyltin compounds (TMT)	Limit: DL: 5.0	ISO/TS 16179 (2012)	REI RSL, bluesign RSL
Tripropyltin compounds (TPT)	Limit: DL: 5.0	ISO/TS 16179 (2012)	REI RSL, bluesign RSL
Tributyltin compounds (TBT)	Limit: DL: 5.0	ISO/TS 16179 (2012)	REI RSL, bluesign RSL
Triphenyltin compounds (TPHT)	Limit: DL: 5.0	ISO/TS 16179 (2012)	REI RSL, bluesign RSL
Triocetyl tin compounds (TOT)	Limit: DL: 5.0	ISO/TS 16179 (2012)	REI RSL, bluesign RSL
Tetraethyltin compounds (TeET)	Limit: 1.0	ISO/TS 16179 (2012)	REI RSL, bluesign RSL
Tetrabutyltin compounds (TTBT)	Limit: DL: 5.0	ISO/TS 16179 (2012)	REI RSL, bluesign RSL
Tetraoctyltin compounds (TTOT)	Limit: DL: 5.0	ISO/TS 16179 (2012)	REI RSL, bluesign RSL
Tricyclohexyltin compounds (TCyHT)	Limit: DL: 5.0	ISO/TS 16179 (2012)	REI RSL, bluesign RSL
UV stabilizer			
UV-320 2-benzotriazol-2-yl-4,6-di-tert-butylphenol (CAS 3846-71-7)	Limit: Traces: 1000	ISO/TS 16179 (2012)	REI RSL, bluesign RSL
UV-327 2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (CAS 3846-71-7)	Limit: Traces: 1000	ISO/TS 16179 (2012)	REI RSL, bluesign RSL
UV-328 2-(2H-benzotriazol-2-yl)-4,6-bis(1,1-dimethylpropyl)phenol (CAS 25973-55-1)	Limit: Traces: 1000	ISO/TS 16179 (2012)	REI RSL, bluesign RSL
UV-350 2-(2H-Benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (CAS 36437-37-3)	Limit: Traces: 1000	ISO/TS 16179 (2012)	REI RSL, bluesign RSL

Appendix A: Alkylphenols and Alkylphenoethoxylates	CAS – No.
Nonylphenol (NP)	several
Octylphenol (OP)	several
Nonylphenoethoxylate (EO) ₃₋₂₀	several
Octylphenoethoxylate (EO) ₃₋₂₀	several

Appendix B: Arylamines (and corresponding salts)	CAS – No.
p-Aminoazobenzene	60-09-3
o-Aminoazotoluene	97-56-3
4-Aminobiphenyl	92-67-1
2-Amino-4-nitrotoluene	99-55-8
2-Anisidine	90-04-0
Benzidine	92-87-5
4-Chloroaniline	106-47-8
4-Chlor-2-toluidine	95-69-2
4-Chloro-o-toluidinium chloride	3165-93-3
p-Cresidine	120-71-8
2,4-Diaminoanisole	615-05-4
4,4'-Diaminodiphenylmethane	101-77-9
2,4-Diaminotoluene	95-80-7
3,3'-Dichlorobenzidine	91-94-1
3,3'-Dimethoxybenzidine	119-90-4
3,3'-Dimethylbenzidine	119-93-7
3,3'-Dimethyl-4,4'-diaminodiphenylmethane	838-88-0
4-Methoxy-m-phenylene diammonium sulphate; 2,4-diaminoanisole sulphate	39156-41-7
4,4'-Methylenebis-(2-chloraniline)	101-14-4
2-Naphthylamine	91-59-8
2-Naphthylammoniumacetate	553-00-4
4,4'-Oxydianiline	101-80-4
4,4'-Thiodianiline	139-65-1
o-Toluidine	95-53-4
2,4,5-Trimethylaniline	137-17-7
2,4,5-Trimethylaniline hydrochloride	21436-97-5
2,4-Xylidine	95-68-1
2,6-Xylidine	87-62-7

Appendix C: Asbestos	CAS – No.
Actinolite	77536-66-4
Amosite	12172-73-5
Anthophyllite	77536-67-5
Chrysotile	12001-29-5
Crocidolite	12001-28-4
Tremolite	77536-68-6

Appendix D: Chlorinated Benzenes and Toluenes	CAS – No.
Monochlorobenzene	108-90-7
Dichlorobenzenes, all isomers	Several
1,2-Dichlorobenzene	95-50-1
1,3-Dichlorobenzene	541-73-1
1,4-Dichlorobenzene	106-46-7
Trichlorobenzenes, all isomers	Several
1,2,3-Trichlorobenzene	87-61-6
1,2,4-Trichlorobenzene	120-82-1
1,3,5-Trichlorobenzene	108-70-3
Tetrachlorobenzenes, all isomers	Several
1,2,3,4-Tetrachlorobenzene	634-66-2
1,2,3,5-Tetrachlorobenzene	634-90-2
1,2,4,5-Tetrachlorobenzene	95-94-3
Pentachlorobenzene	608-93-5
Hexachlorobenzene	118-74-1
Monochlorotoluenes, all isomers	Several
2-Chlorotoluene	95-49-8
3-Chlorotoluene	108-41-8
4-Chlorotoluene	106-43-4
a-Chlorotoluene	100-44-7
Dichlorotoluenes, all isomers	Several
2,3-Dichlorotoluene	32768-54-0
2,4-Dichlorotoluene	95-73-8
2,5-Dichlorotoluene	19398-61-9
2,6-Dichlorotoluene	118-69-4
3,4-Dichlorotoluene	95-75-0
3,5-Dichlorotoluene	25186-47-4
Trichlorotoluenes, all isomers	Several
2,3,4-Trichlorotoluene	7359-72-0
2,3,6-Trichlorotoluene	2077-46-5
2,4,5-Trichlorotoluene	6639-30-1
2,4,6-Trichlorotoluene	23749-65-7
3,4,5-Trichlorotoluene	21472-86-6
a,a,a-Trichlorotoluene	98-07-7
Tetrachlorotoluenes, all isomers	Several
2,3,4,5-Tetrachlorotoluene	76057-12-0
2,3,5,6-Tetrachlorotoluene	29733-70-8
2,3,4,6-Tetrachlorotoluene	875-40-1
a,a,a,4-Tetrachlorotoluene	5216-25-1
Pentachlorotoluene	877-11-2
Chlorotoluene, unspecific mixture	25168-05-2

Appendix E: Chlorinated Phenols	CAS – No.
Monochlorophenols	25167-80-0
2-Chlorophenol	95-57-8
3-Chlorophenol	108-43-0
4-Chlorophenol	106-48-9
Dichlorophenols	25167-81-1
2,3-Dichlorophenol	576-24-9
2,4-Dichlorophenol	120-83-2
2,5-Dichlorophenol	583-78-8
2,6-Dichlorophenol	87-65-0
3,4-Dichlorophenol	95-77-2
3,5-Dichlorophenol	591-35-5
Trichlorophenols	25167-82-2
2,3,4-Trichlorophenol	15950-66-0
2,3,5-Trichlorophenol	933-78-8
2,3,6-Trichlorophenol	933-75-5
2,4,5-Trichlorophenol	95-95-4
2,4,6-Trichlorophenol	88-06-2
3,4,5-Trichlorophenol	609-19-8
Tetrachlorophenols	25167-83-3
2,3,4,5-Tetrachlorophenol	4901-51-3
2,3,4,6-Tetrachlorophenol	58-90-2
2,3,5,6-Tetrachlorophenol	935-95-5
Pentachlorophenols	87-86-5

Appendix F: Colorants with carcinogenic potential	CAS – No.
Acid Red 26	3761-53-3
Acid Red 114	6459-94-5
Basic Green 4	Several
Malachit green	10309-95-2
Malachit green chloride	569-64-2
Malachit green oxalate	2437-29-8
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 Blue 15	2429-74-5
Direct Brown 95	16071-86-6
Direct Red 28	573-58-0
Disperse Blue 1	2475-45-8
Disperse Orange 11	82-28-0
Disperse Yellow 3	2832-40-8
Pigment Black 25	68186-89-0
Pigment Yellow 34	1344-37-2
Pigment Yellow 157	68610-24-2
Pigment Red 104	12656-85-8

Appendix G: Colorants with allergenic potential	CAS – No.
Disperse Blue 3	2475-46-9
Disperse Blue 7	3179-90-6
Disperse Blue 26	3860-63-7
Disperse Blue 35	12222-75-2 56524-77-7
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 37/59/76	12223-33-5 13301-61-6 51811-42-8
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 9	6373-73-5
Disperse Yellow 39	12236-29-2
Disperse Yellow 49	54824-37-2

Appendix H: Colorants banned for other reasons	CAS – No.
Basic Blue 26	2580-56-5
Basic Violet 3	548-62-9 603-48-5 14426-25-6
Direct Yellow 1	6472-91-9
Disperse Yellow 23	6250-23-3
Disperse Orange 149	85136-74-9
Navy Blue A mixture of: disodium (6-(4-anisidino)-3-sulfonato-2-(3,5-dinitro-2-oxidophenylazo)-1-naphtholato)(1-(5-chloro-2-oxidophenylazo)-2-naphtholato)chromate(1-),trisodium bis(6-(4-anisidino)-3-sulfonato-2-(3,5-dinitro-2-oxidophenylazo)-1-naphtholato)chromate(1-) Component 1: CAS-No: 118685-33-9 C ₃₉ H ₂₃ ClCrN ₇ O ₁₂ S ₂ Na Component 2: C ₄₆ H ₃₀ CrN ₁₀ O ₂₀ S ₂ .3Na	EC-Number: 405-665-4 Component 1: 118685-33-9 Component 2: Not allocated

Appendix I: Dioxins and Furans	CAS – No.
Group 1:	Several
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746-01-6
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	40321-76-4
2,3,7,8-Tetrachlorodibenzofuran	51207-31-9
2,3,4,7,8-Pentachlorodibenzofuran	57117-31-4

Appendix I: Dioxins and Furans	CAS – No.
Group 2:	Several
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	39227-28-6
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	57653-85-7
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	19408-74-3
1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6
1,2,3,4,7,8-Hexachlorodibenzofuran	70648-26-9
1,2,3,6,7,8-Hexachlorodibenzofuran	57117-44-9
1,2,3,7,8,9-Hexachlorodibenzofuran	72918-21-9
2,3,4,6,7,8-Hexachlorodibenzofuran	60851-34-5
Group 3:	Several
1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9
1,2,3,4,6,7,8,9-Octachlorodibenzo-p-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:	Several
2,3,7,8-Tetrabromodibenzo-p-dioxin	50585-41-6
1,2,3,7,8-Pentabromodibenzo-p-dioxin	109333-34-8
2,3,7,8-Tetrabromodibenzofuran	67733-57-7
2,3,4,7,8-Pentabromodibenzofuran	131166-92-2
Group 5:	Several
1,2,3,4,7,8-Hexabromodibenzo-p-dioxin	110999-44-5
1,2,3,6,7,8-Hexabromodibenzo-p-dioxin	110999-45-6
1,2,3,7,8,9-Hexabromodibenzo-p-dioxin	110999-46-7
1,2,3,7,8-Pentabromodibenzofuran	107555-93-1

Appendix J: Flame retardants	CAS – No.
2,2-Bis(bromomethyl)-1,3-propanediol	3296-90-0
Bis(2,3-dibromopropyl)phosphate	5412-25-9
Chlorinated paraffins, all chain lengths	Several
Paraffin wax, chlorinated	63449-39-8
Paraffin, C ₁₀ -C ₁₃ , chlorinated (SCCP)	85535-84-8
Paraffin, C ₁₄ -C ₁₇ , chlorinated (MCCP)	85535-85-9
Paraffin, C ₁₈ -C ₂₈ , chlorinated (LCCP)	85535-86-0
Hexabromocyclododecane	25637-99-4
	3194-55-6
	134237-50-6
	134237-51-7
134237-52-8	
Polybrominated diphenyl ethers (PBDE)	Several
Tetrabromodiphenyl ether (TetraBDE)	40088-47-9
Pentabromodiphenyl ether (PentaBDE)	32534-81-9
Hexabromodiphenyl ether (HexaBDE)	36483-60-0
Heptabromodiphenyl ether (HeptaBDE)	68928-80-3
Octabromodiphenyl ether (OctaBDE)	32536-52-0

Appendix J: Flame retardants	CAS – No.
Nonabromodiphenyl ether (NonaBDE)	63936-56-1
Decabromodiphenyl ether (DecaBDE)	1163-19-5
Tetrabromobisphenol A	79-94-7
Tetrabromobisphenol A bis(2,3-dibromopropylether)	21850-44-2
Tri(aziridin-1-yl)phosphine oxide (TEPA) Triethylenephosphoramidate	545-55-1
Trimethyl phosphate	512-56-1
Tri- <i>o</i> -cresyl phosphate	78-30-8
Tris(2-chloroethyl) phosphate (TCEP)	115-96-8
Tris-(2-chloro-1-methylethyl)phosphate (TCPP)	13674-84-5
Tris-[2-chloro-1-(chloromethyl)ethyl]phosphate (TDCP)	13674-87-8
Tris(2,3-dibromopropyl)phosphate (TRIS)	126-72-7
Trixylyl phosphate	25155-23-1

Appendix K: Fluorinated Greenhouse Gases	CAS – No.
Sulphur hexafluoride – SF6	2551-62-4
Perfluoromethane	75-73-0
Perfluoroethane	76-16-4
Perfluoropropane	76-19-7
Perfluorobutane	355-25-9
Perfluoropentane	678-26-2
Perfluorohexane	355-42-0
Perfluorocyclobutane	115-25-3
HFC-23	75-46-7
HFC-32	75-10-5
HFC-41	593-53-3
HFC-43-10mee	138495-42-8
HFC-125	354-33-6
HFC-134	359-35-3
HFC-134a	811-97-2
HFC-152a	75-37-6
HFC-143	430-66-0
HFC-143a	420-46-2
HFC-227ea	431-89-0
HFC-236cb	677-56-5
HFC-236ea	431-63-0
HFC-236fa	690-39-1
HFC-245ca	679-86-7
HFC-245fa	460-73-1
HFC-365mfc	406-58-6

Appendix L: Halogenated Biphenyls, Terphenyls, Napthalenes	CAS – No.
Polybrominated biphenyls (PBBs)	Several
Polychlorinated biphenyls (PCBs)	Several
Polychlorinated terphenyls (PCTs)	Several

Appendix L: Halogenated Biphenyls, Terphenyls, Napthalenes	CAS – No.
Polybrominated terphenyls (PBTs)	Several
Polychlorinated naphthalenes (PCNs)	Several
Polybrominated naphthalenes (PBNs)	Several

Appendix M: Halogenated Diarylalkanes	CAS – No.
Monomethyl-dibromo-diphenyl methane	99688-47-8
Monomethyl-dichloro-diphenyl methane	81161-70-8
Monomethyl-tetrachloro-diphenyl methane	76253-60-6

Appendix N: Isocyanates	CAS – No.
1,3-bis(isocyanatomethyl)benzene (HDI)	3634-83-1
Diphenylmethane-4,4-diisocyanate (MDI)	101-68-8
Hexamethylene diisocyanate (HMDI)	822-06-0
Isophorone diisocyanate (IPDI)	4098-71-9
Tetramethylxylene diisocyanate (TMXDI)	2778-42-9
Toluene-2,4-diisocyanate (2,4-TDI)	584-84-9
Toluene-2,6-diisocyanate (2,6-TDI)	91-08-7

Appendix O: Ozone Depleting Substances	CAS – No.
Ozone-depleting substances (CFC's) class I	Several
Trichlorofluoromethane CFC-11	75-69-4
Dichlorofluoromethane CFC-12	75-71-8
1,1,2-Trichloro-1,2,2-trifluoroethane CFC-113	76-13-1
1,1,1-Trichloro-2,2,2-trifluoroethane CFC-113a	354-58-5
1,2-Dichloro-1,1,2,2-tetrafluoroethane CFC-114	76-14-2
1,1-Dichloro-1,2,2,2-tetrafluoroethane CFC-114a	374-07-2
Monochloropentafluoroethane CFC-115	76-15-3
Bromochlorodifluoromethane Halon-1211	353-59-3
Bromotrifluoromethane Halon-1301	75-63-8
Dibromotetrafluoroethane Halon-2402	124-73-2
Chlorotrifluoromethane CFC-13	75-72-9
Pentachlorofluoroethane CFC-111	354-56-3
1,1,2,2-Tetrachloro-1,2-difluoroethane CFC-112	76-12-0
1,1,1,2-Tetrachlorodifluoroethane CFC-112a	76-11-9
Heptachlorofluoropropane CFC-211	422-78-6
Hexachlorodifluoropropane CFC-212	3182-26-1
Pentachlorotrifluoropropane CFC-213	2354-06-5
Tetrachlorotetrafluoropropane CFC-214	29255-31-0
1,1,3-Trichloropentafluoropropane CFC-215	76-17-5
1,2,3-Trichloropentafluoropropane CFC-215	1652-81-9
1,1,1-Trichloropentafluoropropane CFC-215	4259-43-2
1,2,2-Trichloropentafluoropropane CFC-215	1599-41-3
Dichlorohexafluoropropane CFC-216	661-97-2
Monochloroheptafluoropropane CFC-217	422-86-6

Appendix O: Ozone Depleting Substances	CAS – No.
Carbon tetrachloride CCl ₄	56-23-5
1,1,1-Trichloroethane (Methylchloroform)	71-55-6
Methylbromide (CH ₃ Br)	74-83-9
CHBr ₂	1868-53-7
CHF ₂ Br	1511-62-2
CH ₂ FBr	373-52-4
C ₂ HBr ₄	353-93-5
C ₂ H ₂ FBr ₃	353-97-9
C ₂ H ₃ F ₃ Br ₂	354-04-1
C ₂ H ₄ F ₄ Br	354-07-4
C ₂ H ₂ F ₂ Br ₃	172912-75-3
C ₂ H ₂ F ₂ Br ₂	75-82-1
C ₂ H ₂ F ₃ Br	421-06-7
C ₂ H ₃ F ₃ Br ₂	358-97-4
C ₂ H ₃ F ₂ Br ₃	359-07-9
C ₂ H ₄ F ₄ Br	762-49-2
C ₃ HBr ₆	-
C ₃ H ₂ F ₂ Br ₅	-
C ₃ H ₃ F ₃ Br ₄	-
C ₃ H ₄ F ₄ Br ₃	666-48-8
C ₃ H ₅ F ₅ Br ₂	431-78-7
C ₃ H ₆ F ₆ Br	2252-79-1
C ₃ H ₂ F ₂ Br ₅	-
C ₃ H ₂ F ₂ Br ₄	148875-98-3
C ₃ H ₂ F ₃ Br ₃	431-48-1
C ₃ H ₂ F ₄ Br ₂	460-86-6
C ₃ H ₂ F ₅ Br	460-88-8
C ₃ H ₃ F ₄ Br	-
C ₃ H ₃ F ₂ Br ₃	666-25-1
C ₃ H ₃ F ₃ Br ₂	460-60-6
C ₃ H ₃ F ₄ Br	460-67-3
C ₃ H ₄ F ₄ Br ₃	75372-14-4
C ₃ H ₄ F ₂ Br ₂	51584-25-9
C ₃ H ₄ F ₃ Br	460-32-2
C ₃ H ₅ F ₄ Br ₂	453-00-9
C ₃ H ₅ F ₂ Br ₃	461-49-4
C ₃ H ₆ F ₆ Br	1871-72-3
Chlorobromomethane CH ₂ BrCl	74-97-5
Ozone-depleting substances (CFC's) class II	Several
Dichlorofluoromethane HCFC-21	75-43-4
Monochlorodifluoromethane HCFC-22	75-45-6
Monochlorofluoromethane HCFC-31	593-70-4
Tetrachlorofluoroethane HCFC-121	354-14-3
Trichlorodifluoroethane HCFC-122	354-21-2
Dichlorotrifluoroethane HCFC-123	306-83-2

Appendix O: Ozone Depleting Substances	CAS – No.
Monochlorotetrafluoroethane HCFC-124	2837-89-0
Trichlorofluoroethane HCFC-131	359-28-4
Dichlorodifluoroethane HCFC-132	1649-08-7
Monochlorotrifluoroethane HCFC-133a	75-88-7
HCFC-141	-
Dichlorofluoroethane HCFC-141b	1717-00-6
HCFC-142	-
Monochlorodifluoroethane HCFC-142b	75-68-3
HCFC-151	-
Hexachlorofluoropropane HCFC-221	422-26-4
Pentachlorodifluoropropane HCFC-222	422-49-1
Tetrachlorotrifluoropropane HCFC-223	422-52-6
Trichlorotetrafluoropropane HCFC-224	422-54-8
HCFC-225	-
Dichloropentafluoropropane HCFC-225ca	422-56-0
Dichloropentafluoropropane HCFC-225cb	507-55-1
Monochlorohexafluoropropane HCFC-226	431-87-8
Pentachlorofluoropropane HCFC-231	421-94-3
Tetrachlorodifluoropropane HCFC-232	460-89-9
Trichlorotrifluoropropane HCFC-233	7125-84-0
Dichlorotetrafluoropropane HCFC-234	425-94-5
Monochloropentafluoropropane HCFC-235	460-92-4
Tetrachlorofluoropropane HCFC-241	666-27-3
Trichlorodifluoropropane HCFC-242	460-63-9
Dichlorotrifluoropropane HCFC-243	460-69-5
Monochlorotetrafluoropropane HCFC-244	134190-50-4
Trichloromonofluoropropane HCFC-251	421-41-0
Dichlorodifluoropropane HCFC-252	819-00-1
Monochlorotrifluoropropane HCFC-253	460-35-5
Dichlorofluoropropane HCFC-261	420-97-3
Monochlorodifluoropropane HCFC-262	421-02-3
Monochlorofluoropropane HCFC-271	430-55-7

Appendix P: Pesticides	CAS – No.
Acetamiprid	135410-20-7 160430-64-
Aldrine	309-00-2
Azinphos methyl	86-50-0
Azinphos ethyl	2642-71-9
Bromophos-ethyl	4824-78-6
Captafol	2425-06-1
Carbaryl	63-25-2
Chlorbenzilate	510-15-6
Chlordane	57-74-9
Chlordecone	143-50-0

Appendix P: Pesticides	CAS – No.
Chlordimeform	6164-98-3
Chlorfenvinphos	470-90-6
Clothianidin	210880-92-5
Coumaphos	56-72-4
Cyfluthrin	68359-37-5
Cyhalothrin, λ -	91465-08-6
Cypermethrin	52315-07-8
Deltamethrin	52918-63-5
Diazinon	333-41-5
o,p'-Dichlorodiphenyldichloroethane (o,p'-DDD)	53-19-0
p,p'-Dichlorodiphenyldichloroethane (p,p'-DDD)	72-54-8
o,p'-Dichlorodiphenyldichloroethylene (o,p'-DDE)	3424-82-6
p,p'-Dichlorodiphenyldichloroethylene (p,p'-DDE)	72-55-9
o,p'-Dichlorodiphenyltrichloroethane (o,p'-DDT) and its isomers; preparations containing DDT and its isomers	789-02-6
p,p'-Dichlorodiphenyltrichloroethane (p,p'-DDT) and its isomers; preparations containing DDT and its isomers	50-29-3
2,4-Dichlorophenoxyacetic acid, its salts and compounds	94-75-7
Dichlorprop	120-36-2
Dicrotophos	141-66-2
Dieldrine	60-57-1
Dimethoate	60-51-5
Dinoseb and salts	88-85-7
Dinotefuran	165252-70-0
Endosulfan, α -	959-98-8
Endosulfan, β -	33213-65-9
Endrine	72-20-8
Esfenvalerate	66230-04-4
Fenvalerate	51630-58-1
Heptachlor	76-44-8
Heptachlor epoxide	1024-57-3
Hexachlorocyclohexane (HCH), all isomers	608-73-1
Imidacloprid	105827-78-9 138261-41-3
Isodrin	465-73-6
Kelevane	4234-79-1
Lindane	58-89-9
Malathion	121-75-5
MCPA	94-74-6
MCPB	94-81-5
Mecoprop	93-65-2
Methamidophos	10265-92-6
Methoxychlor	72-43-5
Methyl parathion	298-00-0
Mevinophos	7786-34-7

Appendix P: Pesticides	CAS – No.
Mirex	2385-85-5
Monocrotophos	6923-22-4
Nitenpyram	150824-47-8 120738-89-8
Ethyl parathion	56-38-2
Perthane	72-56-0
Phosphamidon	13171-21-6
Profenophos	41198-08-7
Propetamphos	31218-83-4
Quinalphos	13593-03-8
Strobane	8001-50-1
Telodrin	297-78-9
Tiacloprid	111988-49-9
Thiamethoxam	153719-23-4
Toxaphene	8001-35-2
Tribufos (DEF)	78-48-8
2,4,5-Trichlorophenoxyacetic acid, salts and compounds	93-76-5
Trifluralin	1582-09-8

Appendix Q: Plasticizer	CAS – No.
Bis-(2-methoxyethyl) phthalate (DMEP)	117-82-8
Butylbenzyl phthalate (BBP)	85-68-7
Dibutyl phthalate (DBP)	84-74-2
Di-cyclohexyl phthalate (DCHP)	84-61-7
Diethylhexyl phthalate (DEHP)	117-81-7
Diethyl phthalate (DEP)	84-66-2
Diisobutyl phthalate (DIBP)	84-69-5
Diisodecyl phthalate (DIDP)	26761-40-0 68515-49-1
Diisononyl phthalate (DINP)	28553-12-0 68515-48-0
Di-isooctyl phthalate (DIOP)	27554-26-3
Di-iso-pentyl phthalate (DIPP)	605-50-5
Dimethyl phthalate (DMP)	131-11-3
Di-n-hexyl phthalate (DNHP)	84-75-3
Di-n-octyl phthalate (DNOP)	117-84-0
Dinonyl phthalate (DNP)	84-76-4
Di-n-pentyl phthalate (DnPP)	131-18-0
Di-n-propyl phthalate (DPRP)	131-16-8
n-Pentyl-isopentyl phthalate	776297-69-9
1,2-Benzenedicarboxylic acid, di-C ₆₋₈ -branched alkyl esters, C ₇ -rich (DIHP)	71888-89-6
1,2-Benzenedicarboxylic acid, benzyl C ₇₋₉ -branched and linear alkyl esters	68515-40-2

Appendix Q: Plasticizer	CAS – No.
1,2-Benzenedicarboxylic acid, di-C ₇₋₁₁ -branched and linear alkyl esters (DHNUP)	68515-42-4
1,2-Benzenedicarboxylic acid, dipentyl ester, branched and linear	84777-06-0
1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4

Appendix R: Polyaromatic Hydrocarbons (PAHs)	CAS – No.
Acenaphthylene	208-96-8
Acenaphthene	83-32-9
Anthracene	120-12-7
Benzo(a)anthracene*	56-55-3
Benzo(b)fluoranthene*	205-99-2
Benzo(j)fluoranthene*	205-82-3
Benzo(k)fluoranthene*	207-08-9
Benzo(ghi)perylene	191-24-2
Benzo(a)pyrene	50-32-8
Benzo(e)pyrene*	192-97-2
Chrysene*	218-01-9
Dibenzo(a,h)anthracene*	53-70-3
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