

CHEMICAL RESTRICTIONS

LifeStraw products

Restricted Substance List

Revision: 001

Published Date: January 13, 2021

Effective Date: June 30, 2021

Commitment of LifeStraw

In support of our belief and commitment that everyone deserves safe drinking water and a healthy planet, LifeStraw is committed to selecting better chemistries throughout our whole supply chain from our base chemical inputs through to our finished goods production.

As part of this commitment, we undertake the effort to maintain and share our LifeStraw RSL to ensure that these specific substances are limited or eliminated from our products such that these products comply with the latest United States - Federal Drug Administration (US-FDA) and European Union (EU) chemical regulatory requirements and limits for the individual components or finished products that are intended to come into contact with water for drinking.

Also, we share this information to keep our suppliers, manufacturers, retailer partners, and customers informed regarding the latest chemical regulatory requirements and limits for products that are intended to come into contact with water for drinking as a helpful tool for our global community and so that we all can be better stewards of our planet.

Since the (US-FDA and EU) chemical regulatory requirements and limits for individual components or finished products that come in contact with water for drinking are continually changing, LifeStraw is committed to updating and publishing our LifeStraw RSL with both a Published Date and an Effective Date. This is to allow for future compliance with any new standards or limits that are enacted.

Scope:

This document specifies restricted substances (usage bans and limits) in materials and articles used in manufacturing and in LifeStraw products finished goods

Application:

The restrictions and limits must be applied for each individual component of an intermediate or finished Article which is intended to come into contact with water for drinking. A component is part of Article that can be distinguished according to the material composition and/or color and/or functionality and/or manufacturing process and is be able to mechanically separate from other components.

Definitions

Maximum concentration limit	The substance must not be present in the product at concentrations above this limit
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
CAS No	A unique numerical identifier assigned by the Chemical Abstracts Service (CAS) to every chemical substance described in the open scientific literature
Chemical substance	Any material that has a definite chemical composition and defined by the CAS Number
Not Detected	The substance must not be present in the finished product at concentration above the analytical reporting limit
Usage ban	The substance must not be used in production and it must not be added to the product
Substances defined as Hazardous	Persistent, bioaccumulative and toxic, very persistent and very bioaccumulative, carcinogenic, mutagenic and toxic for reproduction, endocrine disruptors or equivalent concern

Abbreviations

CFR	Code of Federal Regulations
FDA	US Food and Drug Administration
LFGB	German Foods, Consumer Goods and Feedstuffs Code
FCM	Food Contact material
Ppm	Parts per million, which is the same as mg/kg
Percentage	Percentage is weight by weight, % w/w
RL	Reporting limit, the smallest concentration of a chemical that can be reported by a laboratory
MRS�	Manufacturing Restricted Substances List
SM	Specific migration in food simulants or water
PAAs	Primary Aromatic Amines
PAHs	Polycyclic Aromatic Hydrocarbons
REACH	Registration, Evaluation, Authorization and restriction of Chemicals
SVHC	Substance of Very High Concern

General requirements for all materials in contact with water

LifeStraw commits all materials of water filter products which are intended to be in contact with water for drinking are in compliance with the regulations for Food contact materials laid down as the following

Market	Regulation	Requirement
USA	US legislation for food contact materials governed by the Food and Drug Administration (FDA)	All substances in Food Contact Products must be Generally Recognized As Safe (GRAS) and comply with the indirect additive database in Title 21 of the US Code of Federal Regulations (21 CFR) Part 177; 180 and 181 ¹
Europe	Food Contact Products Framework Regulation	All Food Contact products must comply with EU Framework Regulation concerning Food Contact Products no 1935/2004 and all regulations, directives and amendments under this framework regulation ²
Others		For specific requirements, contact LifeStraw for evaluation and approval

¹<https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm?CFRPart=177>
<https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm?CFRPart=180>
<https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfcfr/CFRSearch.cfm?CFRPart=181>

²Regulation (EC) No 1935/2004 on materials and articles intended to come into contact with food

Restricted materials/substances

Restricted material	Limit
Polycarbonate (PC) Plastic	Usage ban
Polystyrene (PS) Plastic	Usage ban
Polyvinylchloride (PVC)	Usage ban
Rubber	Usage ban
Recycled silicon	Usage ban
Recycled plastic	Usage ban

Restricted substance	Limit	Reporting limit
SVHC	1000 ppm, except if lower limit applies as per other parts of this document	
REACH Annex XVII (Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles)	All chemicals used must be reported and tested according to REACH Annex XVII	
Bisphenol A (BPA)	Not detected	0.1 mg/kg
Bisphenol S (BPS)	Not detected	0.1 mg/kg
Bisphenol F (BPF)	Not detected	0.1 mg/kg

Biocides of all kinds (e.g antifungi functions, preservatives, etc.)	Usage ban	
Polychlorinated biphenyls (PCB)	Usage ban	
Azo dyes and pigments*	Usage ban	
Perfluorinated Compounds (PFCs) *	Usage ban	
Asbestos	Usage ban	

* Group of substances is specified in Appendix

Glass and Ceramic

USA

Restricted substance	Cas.	Limit – US FDA	Reference standard	Test method (recommended)
Lead	7439-92-1	0.5 mg/L	US FDA CPG Sec. 545.400 & CPG Sec.545.450	AOAC 18th Ed. (2005) Section 973.32 or Section 984.19
Cadmium	7440-43-9	0.25 mg/L		

³ <https://echa.europa.eu/substances-restricted-under-reach>

Europe

Restricted substance	Cas.	Limit*	Reference standard	Test method (recommended)
Lead	7439-92-1	1.5 mg/L	European directive 84/500/EEC and its amendment; Feed code of September 1, 2005 (LFGB) Section 30 and DIN 51032:2017; French Décret 2007-766 and methodological document DM/4B/COM/002	EN 1388-1:1995 and EN 1388-2:1995
Cadmium	7440-43-9	0.1 mg/L		

* If the result of the first tested article does not exceed the limit by more than 150%, three more identical articles shall be tested. The final result is passed if the average result does not exceed the limit with none of the articles exceeding the limit by more than 50%

Stainless steel

Reference standard:

US - NSF/ANSI61

EU - Directive 82/711/EEC, Council Directive 85/572/EEC and its corresponding regulations

Restricted substance	Cas.	Limit - US	Limit - EU	Unit
Specific migration for material component				
Aluminum (Al)	7429-90-5	9	5	mg/kg
Antimony (Sb)	7440-36-0	0.006	0.04	mg/kg
Chromium (Cr)	7440-47-3	0.1	0.25	mg/kg
Cobalt (Co)	7440-48-4	-	0.02	mg/kg
Copper (Cu)	7440-50-8	1.3	4	mg/kg
Iron (Fe)	7439-89-6	-	40	mg/kg
Manganese (Mn)	7439-96-5	-	1.8	mg/kg
Molybdenum (Mo)	7439-98-7	-	0.12	mg/kg
Nickel (Ni)	7440-02-0	0.1	0.14	mg/kg
Selenium (Se)	7782-49-2	0.05		mg/kg
Silver (Ag)	7440-22-4	-	0.08	mg/kg
Tin (Sn)	7440-31-5	-	100	mg/kg
Vanadium (V)	7440-62-2	-	0.01	mg/kg
Zinc (Zn)	7440-66-6	3	5	mg/kg
Specific migration for material as contaminants and impurities				
Arsenic (As)	7440-38-2	0.01	0.002	mg/kg
Barium (Ba)	7440-39-3	2	1.2	mg/kg
Beryllium (Be)	7440-41-7	0.004	0.01	mg/kg
Cadmium (Cd)	7440-43-9	0.005	0.005	mg/kg
Lead (Pb)	7439-92-1	0.005	0.01	mg/kg
Lithium (Li)	7439-93-2	-	0.048	mg/kg
Mercury (Hg)	7439-97-6	0.002	0.003	mg/kg
Thallium (Tl)	7440-28-0	0.002	0.0001	mg/kg

Metals and alloys components

USA

Restricted substance	Cas.	Limit	Unit	Reference standard	Test method (recommended)
Lead (Pb) – Total content	7439-92-1	0.25	%		

Lead (Pb) – Leachable	7439-92-1	0.5	mg/L	US FDA Food code 2017 and NSF/ANSI 372	AOAC 18th Ed. (2005) Section 973.32 or Section 984.19
-----------------------	-----------	-----	------	--	---

EUROPE – refer the requirement for Stainless steel

Silicon

USA - All polymers must comply with US Regulation 21 CFR Part 177 – Indirect Food Additives: Polymers

Item	Restricted substance	Limit	Reference standard
Articles intended for repeated use	Total extraction	After 7hr reflux: 20mg/in ² Then after 2hr flux: 1mg/in ²	US FDA 21 CFR 177.2600
Closures with sealing gaskets*	Amount of net chloroform soluble extractives	50ppm	US FDA 21 CFR 177.1210

* Sealing gaskets can be tested according to the standard US FDA 21 CFR 177.2600

EUROPE

Restricted substance	Limit	Reference standard	Test method (recommended)
Sensorial examination	Odour/taste transfer ≤ 2.5	Feed code of September 1, 2005 (LFGB) Section 30 and 31	DIN 10955:2004 or ISO 13302
Color fastness (for colored materials)	No color release	Feed code of September 1, 2005 (LFGB) Section 30 and 31	Kunststoffe im Lebensmittelverkehr, Part B II IX
Overall migration	10 mg/dm ² (or 60mg/kg)	(EU) No 10/2011 and its amendments	EN 1186-2:2002
Total Bisphenol A	Not detected (RL-0.1mg/kg)	French Décret 2007-766 with amendments and French Law 2012-1442	DGCCRF publication for implementation of the Bisphenol A Act
Total PAHs	0.2 mg/kg 0.2 to 10 mg/kg: Test SM of PAH	(EU) No 10/2011 and its amendments	EN 13130-1:2004
SM of PAH	10 µg/kg	(EU) No 10/2011 and its amendments	EN 13130-1:2004
Volatile organic substances (VOC)	0.50%	Feed Code of September 1, 2005 (LFGB), Section 30 and 31	Bundesgesundheitsbl. 46 (2003) 362

Peroxide value	Not detected (RL 0.01%)	Feed Code of September 1, 2005 (LFGB), Section 30 and 31	Bundesgesundheitsbl. 40 (1997) 412
SM of Organotin	0.1mg/kg (as Tin or as Sn)	(EU) No 10/2011 and its amendments or French Arrêté du 25 Novembre 1992 and French Décret 2007-766 with amendments	EN 13130-1:2004
Catalyst residues - Platinum	50mg/kg	BfR Recommendations on Food Contact Materials, Part XV, 2011	

Plastics

USA - All Plastics must comply with US regulation 21 CFR Part 177, 180 and 181 on plastic materials and articles intended to contact with food

Material	Restricted substance	Reference standard	Limit
Acrylonitrile butadiene styrene (ABS)	Acrylonitrile monomer	US FDA 21 CFR 180.22 & 181.32	0.003 mg/in ²
Methyl methacrylate Acrylonitrile Butadiene Styrene (MABS)	Acrylonitrile monomer	US FDA 21 CFR 180.22 & 181.32	0.003 mg/in ²
Styrene-acrylonitrile (SAN), acrylonitrile content <30%	Acrylonitrile monomer	US FDA 21 CFR 181.32	0.003 mg/in ²
Styrene Methyl Methacrylate (SMMA)	Absorbance of Ultraviolet Absorbing Extractives	US FDA 21 CFR 177.1010	0.3
	Absorbance of KMnO ₄ Oxidizable Extractives	US FDA 21 CFR 177.1010	0.15
	Total Non-Volatile Extractives	US FDA 21 CFR 177.1010	0.3 mg/in ²
Polypropylene (PP) - Copolymer	Maximum extractable fraction with n-Hexane	US FDA 21 CFR 177.1520	5.5%

	Maximum soluble fraction with Xylene	US FDA 21 CFR 177.1520	30.0%
Polypropylene (PP) - Homopolymer	Maximum extractable fraction with n-Hexane	US FDA 21 CFR 177.1520	6.4%
	Maximum soluble fraction with Xylene	US FDA 21 CFR 177.1520	9.8%
Polyethylene (PE)	Maximum extractable fraction with n-Hexane	US FDA 21 CFR 177.1520	5.5%
	Maximum soluble fraction with Xylene	US FDA 21 CFR 177.1520	11.3%
Tritan	NET CHLOROFORM SOLUBLE EXTRACTIVES	US FDA 21 CFR 177.2420	0.1 mg/in2
Polyoxymethylene (POM)	NET CHLOROFORM SOLUBLE EXTRACTIVES	US FDA 21 CFR 177.2470	0.5 mg/in2
	Total extractives – reflux for 6hr	US FDA 21 CFR 177.2470	0.2 mg/in2
Polyamide (PA) e.g. Nylon PA 66	Extracted substance in Water	US FDA 21 CFR 177.1500	1%
Polysulfone (PS)	Extractive Substances	US FDA 21 CFR 177.1655	0.05 mg/in2
Polyethyl sulfone (PES)	Extractive substances	US FDA 21 CFR 177.2440	0.02 mg/in2
Polyurethane (PU)	Chloroform soluble Extractives	US FDA 21 CFR 177.1210	50ppm
Thermoplastic polyurethane (TPU) and Thermoplastic Elastomer (TPE)	Amount of extractives – reflux for 7hr	US FDA 21 CFR 177.2600	20 mg/in2
	Amount of extractives – succeeding reflux for 02hr	US FDA 21 CFR 177.2600	1 mg/in2
Polyethylene Terephthalate (PET)	Chloroform soluble Extractives	US FDA 21 CFR 177.1630	0.5 mg/in2
Ethylene-vinyl acetate (EVA)	Chloroform soluble Extractives	US FDA 21 CFR 177.1350	0.5 mg/in2

EUROPE - General requirement for all plastic materials (all plastic parts must comply with the requirements in accordance with regulation (EU) No 10/2011 and its amendments)

Restricted substance	Limit	Reference standard	Test method (recommended)
Overall migration	10 mg/dm ²	(EU) No 10/2011 and its amendments	EN1186-3:2002
PAHs*, Content	0.2 mg/kg 0.2 to 10 mg/kg: Test specific migration PAH	(EU) No 10/2011 and its amendments	ISO 18287 AfPS GS 2014:01
SM of PAH*	10 µg/kg	(EU) No 10/2011 and its amendments	EN 13130
Phthalates*	BBP, DEHP, DINP and DIDP ≤ 0.1% DBP ≤ 0.05%	(EU) No 10/2011 and its amendments	EN 13130-1:2004
Total bisphenol A	Not detected (RL-0.1mg/kg)	French Décret 2007-766 with its amendments and French Law 2012-1442	Part II Section D2 of Testing methods for Foodstuffs
Sensorial examination	Odour/taste transfer ≤ 2.5	Feed code of September 1, 2005 (LFGB) Section 31	DIN 10955:2004 or ISO 13302
Color fastness (colored plastic)	No color release	Resolution AP (89)1 Appendix III	Kunststoffe im Lebensmittelverkehr, Part B II IX

Specific migration of metals from plastic

Restricted substance	Limit	Reference standard	Test method (recommended)
Barium (Ba)	1 mg/kg	(EU) No 10/2011 and its amendments	EN 13130-1:2004
Cobalt (Co),	0.05 mg/kg		
Copper (Cu),	5 mg/kg		
Iron (Fe),	48 mg/kg		
Lithium (Li),	0.6 mg/kg		
Manganese (Mn),	0.6 mg/kg		
Zinc (Zn),	5 mg/kg		
Aluminium (Al)	1 mg/kg		
Nickel	0.02 mg/kg		

Specific requirement for each type of plastic

Acrylonitrile butadiene styrene (ABS)

Restricted substance	Limit	Reference standard	Test method (recommended)
Volatile Organic Substances	15 mg/dm ²	Bundesgesundheitsbl., 14, (1971)	

SM of Acrylonitrile	0.01 mg/kg	(EU) No 10/2011 and its amendments	EN 13130-3
SM of Butadiene	0.01 mg/kg	(EU) No 10/2011 and its amendments	EN 13130-15
SM of Primary Aromatic Amines (colored article)	Not detected (RL 0.01mg/kg)	(EU) No 10/2011 and its amendments	EN 13130-1:2004 and BfR Recommendation XXI

Methyl methacrylate Acrylonitrile Butadiene Styrene (MABS)

Restricted substance	Limit	Reference standard	Test method (recommended)
Volatile Organic Substances	15 mg/dm ²	Bundesgesundheitsbl., 14, (1971)	
SM of Acrylonitrile	0.01 mg/kg	(EU) No 10/2011 and its amendments	EN 13130-3
SM of Butadiene	0.01 mg/kg	(EU) No 10/2011 and its amendments	EN 13130-15
SM of Methyl Methacrylate	0.01 mg/kg	(EU) No 10/2011 and its amendments	
SM of Primary Aromatic Amines (colored article)	Not detected (RL 0.01mg/kg)	(EU) No 10/2011 and its amendments	EN 13130-1:2004 and BfR Recommendation XXI

Styrene-acrylonitrile (SAN)

Restricted substance	Limit	Reference standard	Test method (recommended)
Volatile Organic Substances	15 mg/dm ²	Bundesgesundheitsbl., 25, (1982)	
SM of Acrylonitrile	0.01 mg/kg	(EU) No 10/2011 and its amendments	EN 13130-3
SM of Primary Aromatic Amines (colored article)	Not detected (RL 0.01mg/kg)	(EU) No 10/2011 and its amendments	EN 13130-1:2004 and BfR Recommendation XXI

Styrene Methyl Methacrylate (SMMA)

Restricted substance	Limit	Reference standard	Test method (recommended)
SM of Methyl Methacrylate	0.01 mg/kg	(EU) No 10/2011 and its amendments	
Volatile Organic Substances	0.5%	Bundesgesundheitsbl., 14, (1971)	
SM of Primary Aromatic Amines (colored article)	Not detected (RL 0.01mg/kg)	(EU) No 10/2011 and its amendments	EN 13130-1:2004 and BfR Recommendation XXI

Polypropylene (PP) and Polyethylene (PE)

Restricted substance	Limit	Reference standard	Test method (recommended)
Nonyl phenol	5 mg/kg		Organic solvent extraction, GC-MS
SM of Primary Aromatic Amines*	Not detected (RL 0.01mg/kg)	(EU) No 10/2011 and its amendments	

* Recommended

Tritan

Restricted substance	Limit	Reference standard	Test method (recommended)
SM of 2,2,4,4-Tetramethyl-1,3-Cyclobutanediol (TMCD)	5mg/kg	(EU) No 10/2011 and its amendments	EN 13130-1: 2004, analysis was performed by GC-MS
SM of Primary Aromatic Amines (colored article)	Not detected (RL 0.01mg/kg)	(EU) No 10/2011 and its amendments	EN 13130-1:2004 and BfR Recommendation XXI

Polyoxymethylene (POM)

Restricted substance	Limit	Reference standard	Test method (recommended)
SM of Formaldehyde	15 mg/kg	(EU) No 10/2011 and its amendments	

Polyamide (PA) e.g. Nylon PA 66

Restricted substance	Limit	Reference standard	Test method (recommended)
SM of Caprolactam	15 ppm	(EU) No 10/2011 and its amendments	EN 13130-16
Cyclic Oligomers content	5 mg/kg	(EU) No 10/2011 and its amendments	
SM of Primary Aromatic Amines	0.01mg/kg	(EU) No 10/2011 and its amendments	EN 13130-1:2004 and BfR Recommendation XXI

Polysulfone (PS)

Restricted substance	Limit	Reference standard	Test method (recommended)
SM of Diphenyl sulphone	3 mg/kg	(EU) No 10/2011 and its amendments	

Polyethyl sulfone (PES)

Restricted substance	Limit	Reference standard	Test method (recommended)
SM of 4,4-dihydroxydiphenylsulphone	0.05 mg/kg	(EU) No 10/2011 and its amendments	
SM of 4,4-Dichlorodiphenylsulphon e	0.05 mg/kg	(EU) No 10/2011 and its amendments	

Polyurethane (PU)

Restricted substance	Limit	Reference standard	Test method (recommended)
Isocyanates, total*	1 mg/kg for each compound	(EU) No 10/2011 and its amendments	ISO 10283 or EN13138-8
SM of Primary Aromatic Amines	0.01mg/kg	(EU) No 10/2011 and its amendments	EN 13130-1:2004 and BfR Recommendation XXI

Thermoplastic polyurethane (TPU)

Restricted substance	Limit	Reference standard	Test method (recommended)
SM of Primary Aromatic Amines	Not detected (RL 0.01mg/kg)	(EU) No 10/2011 and its amendments	EN 13130-1:2004 and BfR Recommendation XXI

Polyethylene Terephthalate (PET)

Restricted substance	Limit	Reference standard	Test method (recommended)
SM of Antimony	0.04 ppm	(EU) No 10/2011 and its amendments	
Ethylene glycol	30 mg/kg	(EU) No 10/2011 and its amendments	EN 13130

Terephthalic acid	7.5 mg/kg	(EU) No 10/2011 and its amendments	EN 13130
-------------------	-----------	------------------------------------	----------

Thermoplastic Elastomer (TPE)

Restricted substance	Limit	Reference standard	Test method (recommended)
Total Nonylphenol	5 mg/kg	(EU) No 10/2011 and its amendments	

Ethylene-vinyl acetate (EVA)

Restricted substance	Limit	Reference standard	Test method (recommended)
SM of Vinyl Acetate	12 mg/kg	(EU) No 10/2011 and its amendments	

Appendix: Restricted substance groups

Azo Dyes and Pigments	CAS No
4-aminodiphenyl	92-67-1
Benzidine	92-87-5
4-Chloro-o-toluidine	95-69-2
2-Naphthylamine	91-59-8
o-Aminoazotoluene	97-56-3
2-Amino-4-nitrotoluene	99-55-8
2,4-Diaminoanisole	615-05-4
4,4'-Diaminodiphenylmethane	101-77-9
3,3'-Dichlorobenzidine	91-94-1
3,3'-Dimethoxybenzidine (o-Dianisidine)	119-90-4
3,3'-Dimethylbenzidine (o-Tolidine)	119-93-7
3,3'-Dimethyl-4,4'-diaminodiphenylmethane	838-88-0
p-Chloroaniline	106-47-8
p-Cresidine	120-71-8
4,4'-Methylene-bis-(2-chloroaniline)	101-14-4
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
o-Anisidine	90-04-0

p-Aminoazobenzene	60-09-3
2,4-Xylidine	95-68-1
2,6-Xylidine	87-62-7

Perfluorinated Compounds (PFCs)	CAS No.
Perfluorobutane Sulfonate (PFBS)	29420-49-3
Perfluorohexane Sulfonate (PFHxS)	3871-99-6
Perfluoroheptane Sulfonate (PFHpS)	375-92-8
Perfluorooctane Sulfonate (PFOS)	56773-42-3
Perfluorodecane Sulfonate (PFDS)	126105-34-8
Perfluorooctane Sulfonamide (PFOSA) 1H,1H,2H,2H H4PFOS; 6:2	754-91-6
Perfluorobutane Acid (PFBA)	375-22-4
Perfluoropentane Acid (PFPA)	2706-90-3
Perfluorohexane Acid (PFHxA)	307-24-4
Perfluoroheptane Acid (PFHpA)	375-85-9
Perfluorooctanoic Acid (PFOA)	335-67-1
Perfluorononane Acid (PFNA)	375-95-1
Perfluorodecane Acid (PFDA)	335-76-2
Perfluoroundecanoic Acid (PFUnA)	4234-23-5
Perfluorododecanoic Acid (PFDoA)	307-55-1
Perfluorotridecanoic Acid (PFTrA)	72629-94-8
Perfluorotetradecanoic Acid (PFTeA)	376-06-7
Perfluoro-3,7-dimethyloctanoic Acid (PF-3,7-DMOA)	172155-07-6
7H-Dodecanefluoroheptane Acid (HPFHpA)	1546-95-8
2H,2H-perfluorodecane Acid (H2PFDA)	-
2H,2H,3H,3H-Perfluoroundecanoic Acid (H4PFUnA)	34598-33-9
1H,1H,2H,2H-Perfluorooctylacrylate (6:2 FTA)	17527-29-6
1H,1H,2H,2H-Perfluorodecylacrylate (8:2 FTA)	27905-45-9
1H,1H,2H,2H-Perfluorododecylacrylate (10:2 FTA)	17741-60-5
1H,1H,2H,2H-Perfluoro-1-hexanol (4:2 FTOH)	2043-47-2
1H,1H,2H,2H-Perfluoro-1-oktanol (6:2 FTOH)	647-42-7
1H,1H,2H,2H-Perfluoro-1-decanol (8:2 FTOH)	678-39-7
1H,1H,2H,2H-Perfluoro-1-dodecanol (10:2 FTOH)	865-86-1
2-(N-methylperfluoro-FASE 1 octanesulfonamido)-ethanol (MeFOSE)	24448-09-7

2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol (EtFOSE)	1691-99-2
N-methylperfluoro-1-octanesulfonamide (MeFOSA)	31506-32-8
N-ethylperfluoro-1-octanesulfonamide (EtFOSA)	4151-50-2
1H,1H,2H,2H-Perfluorooctanesulphonic acid (H4PFOS 6-2)	27619-97-2
All other Perfluorinated or Polyfluorinated compounds (fully or partially fluorinated compounds)	Various

Polycyclic Aromatic Hydrocarbons	CAS No.
Benzo[a]pyrene (BaP)	50-32-8
Benzo[e]pyrene	192-97-2
Benzo[a]anthracene	56-55-3
Benzo[b]fluoranthene	205-99-2
Benzo[j]fluoranthene	205-82-3
Benzo[k]fluoranthene	207-08-9
Chrysene	218-01-9
Dibenzo[a,h]anthracene	53-70-3
Benzo[g,h,i]perylene	191-24-2
Indeno[1,2,3-c,d]pyrene	193-39-5
Naphthalene	91-20-3
Acenaphthene	83-32-9
Acenaphthylene	208-96-8
Anthracene	120-12-7
Fluoranthene	206-44-0
Fluorene	86-73-7
Phenanthrene	85-01-8
Pyrene	129-00-0

Phthalates	CAS No.
Di-n-pentylphthalat (DnPP)	131-18-0
Benzylbutyl phthalate (BBP)	85-68-7
Diethylhexyl phthalate (DEHP)	117-81-7
Dibutyl phthalate (DBP)	84-74-2
Diisononyl phthalate (DINP)	28553-12-0, 68515-48-0
Diisodecyl phthalate (DIDP)	26761-40-0, 68515-49-1
Di-n-octylphthalat (DNOP)	117-84-0

Dimethylphthalat (DMP)	131-11-3
Diethylphthalat (DEP)	84-66-2
Butyl-i-butylphthalat	17851-53-5
Trimethylpentandiolisobutytrat (TXIB)	6846-50-0
Diisononyladipat (DINA)	33703-08-1
Acetyltributylcitrat (ATBC)	77-90-7
Diethylhexyladipat (DEHA)	103-23-1
Hexamoll®	166412-78-8
Mesamoll®	91082-17-6
Triphenylphosphat	115-86-6
Tri-o-kresylphosphat	78-30-8
Tri-m-kresylphosphat	563-04-2
Tri-p-kresylphosphat Butylbenzoat	78-32-0
Butylbenzoat	136-60-7
Di(propylen glycol) dibenzoat, DPGDB	27138-31-4
Di(ethylen glycol) dibenzoat, DEGDB	120-55-8
LG FLEX EBN	610787-77-4
LG FLEX BET	610787-76-3
Tri(ethylhexyl)trimellitit, TOTM	3319-31-1
2-Ethylhexyldiphenylphosphat	1241-94-7
Di-iso-heptylphthalat, DIHeP	90937-19-2, 71888-89-6
Pentyl-iso-pentylphthalat	84777-06-0
Bis-(2-methoxyethyl)phthalate	117-82-8
Diethylhexylterephthalat (DEHT)	6422-86-2
Di-(2-butoxyethyl)phthalate	117-83-9
Diallylphthalat	131-17-9
Dicyclohexylphthalat (DCP)	84-61-7
Bis-(3,5,5-trimethylhexyl)phthalate	14103-61-8
Dicapryladipat Di-n-butylmaleat (DBM)	108-63-4
Di-n-butylmaleat (DBM)	1190-39-2, 105-76-0
Di-(2-ethylhexyl)maleat	142-16-5
Butylstearat	123-95-5
Dimethyladipat	627-93-0
Dibutyladipat	105-99-7
Diisodecyladipat	27178-16-1, 27193-86-8
Di(2-(2-butoxyethoxy)ethyl)adipat	141-17-3
Bis(2-butoxyethyl)adipat	141-18-4
Stearylstearat	2778-96-3
Di-n-propylphthalat	131-16-8
Di-n-hexylphthalat, DNHP	84-75-3
Di-n-heptylphthalat	3648-21-3
Di-n-nonylphthalat, DnNP	84-76-4
Di-n-decylphthalat	84-77-5

Di-n-undecylphthalat	91082-17-6
Diisoundecylphthalat, DIUP	96507-86-7
Di(2-propylheptyl)phthalat, DPHP	53306-54-0
Diisooctylphthalat, DIOP	27554-26-3
Diisobutylphthalat, DIBP	84-69-5
Diisopentylphthalat DiPP	605-50-5

Primary Aromatic Amines	CAS No.
PAA classified as carcinogenic 1A or 1B acc. to Regulation (EC) No 1272/2008	
2,4,5-Trimethylaniline	137-17-7
2,4-Diaminoanisole	615-05-4
2-Naphthylamine	91-59-8
3,3'-Dichlorobenzidine	91-94-1
4,4'-methylene-bis-(2-chloro-aniline)	101-14-4
4,4'-methylenedianiline	101-77-9
4,4'-oxydianiline	101-80-4
4,4'-thiodianiline	139-65-1
4-aminoazobenzene	60-09-3
4-aminobiphenyl	92-67-1
4-chloro-o-toluidine	95-69-2
o-anisidine	90-04-0
Benzidine	92-87-5
4-chloroaniline	106-47-8
o-aminoazotoluene	97-56-3
p-cresidine	120-71-8
4,4'-bi-o-toluidine	119-93-7
2,4-toluene diamine	95-80-7
o-Toluidine	95-53-4
3,3'-Dimethoxybenzidine	119-90-4
4,4'-Methylene-di-o-toluidine	838-88-0
PAA not classified as carcinogenic 1A or 1B acc. to Regulation (EC) No 1272/2008	
2,4-Dimethylaniline	95-68-1
2-ethoxyaniline	94-70-2
3-Amino-4-methoxybenzanilide	120-35-4
3-Amino-4-methylbenzamide	19406-86-1
4,4'-Methylenebis-(3-chloro-2,6-diethylaniline)	106246-33-7
4-aminobenzamide	2835-68-9
4-chloro-2,5-dimethoxyaniline	6358-64-1
4-Ethoxyaniline	156-43-4
Benzoguanamine	91-76-9

Dimethyl-2-aminoterephthalate	5372-81-6
2-Chloroaniline	95-51-2
5-Chloro-2-methoxyaniline	95-03-4
2-Nitroaniline	88-74-4
1,3-Diiminoisindoline	3468-11-9
2-Chloro-4-nitroaniline	121-87-9
2-Methoxy-4-nitroaniline	97-52-9
4-Chloro-3-methoxyaniline	13726-14-2
5-Amino-6-methyl-1,3-dihydro-2H-benzimidazol-2-one	67014-36-2
2-Aminonaphthalene-1-sulfonic acid	81-16-3
4-Aminotoluene-3-sulfonic acid	88-44-8
2,5-Dichloroaniline	95-82-9
2,4,5-Trichloroaniline	636-30-6
2,4-Dinitroaniline	97-02-9
Biphenyl-2-ylamine	90-41-5
2-Methyl-4-nitroaniline	99-52-5
1,5-naphthylenediamine	2243-62-1
2,6-Dimethylaniline	87-62-7
2-Methyl-5-nitroaniline	99-55-8
5-Chloro-2-methylaniline	95-79-4
Aniline	62-53-3
m-Anisidine	536-90-3
3-Chloroaniline	108-42-9
o-phenylenediamine	95-54-5
p-phenylenediamine	106-50-3
m-phenylenediamine	108-45-2
2,6-toluenediamine	823-40-5
p-toluidine	106-49-0
m-toluidine	108-44-1

Isocyanates	CAS No.
Cyclohexyl isocyanate	3173-53-3
Diphenylmethane-4,4-diisocyanate	101-68-8
Hexamethylene diisocyanate	822-06-0
Isophorone Diisocyanate	4098-71-9
1,3-Bis(2-isocyanate-2-propyl)benzene	2778-42-6
2,4-Toluene diisocyanate	584-84-9
2,6-Toluene diisocyanate	91-08-7

Organotin	CAS No.
-----------	---------

Monobutyltin (MBT)	78763-54-9
Dibutyltin (DBT)	1002-53-5
Tributyltin (TBT)	56573-85-4
Tetrabutyltin (TeBT)	1461-25-2
Monooctyltin (MOT)	15231-57-9
Diocetyl tin (DOT)	94410-05-6
Tricyclohexyltin (TcyT)	6056-50-4
Triphenyltin (TphT)	668-34-8