

Year of selection	Substance name (CAS-No.)	Biomarker	Method; Limit of Quantification (LOQ)	Volume
2010	DINCH 1,2-Cyclohexane dicarboxylic acid diisononyl ester (166412-78-8 Isomere mixture)	OH-MINCH cx-MINCH	Online-SPE-LC-MS/MS LOQ: both 0.05 µg/l	0.3 mL urine
	DPHP Di(2-propyl heptyl)phthalate (53306-54-0)	oxo-MPHP OH-MPHP cx-MPHxP	GC/HRMS LOQ: 0.25 µg/L; LOQ: 0.3 µg/L; LOQ: 0.15 µg/L	1.0 mL urine
	HBCDD Hexabromocyclododecane (25637-99-4)	α-HBCD β-HBCD γ-HBCD	UPLC-MS/MS LOQ, all three: 0.03 µg/L	1.0 mL plasma
	4-Nonylphenol, branched (84852-15-3)	OH-Nonylphenol Oxo-Nonylphenol	Online-SPE-LC-MS/MS (updated method from 2021) BG: 0.5 µg/L BG: 0.25 µg/L	0.3 mL urine
	4-tert-Octylphenol (140-66-9)	4-tert-Octylphenol Simultaneous determination with 4-Nonylphenol, branched	UPLC-MS/MS LOQ: both 1.0 µg/L	0.5 mL urine (simultaneous determination of Nonyl- and Octylphenol)

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2011	4-MBC 3-(4-Methylbenzylidene) – camphor (36861-47-9)	MBC-cx (=3-4CBC) 3-(4-Carboxybenzylidene) camphor MBC-OH (=3-4CBHC) 3-(4-Carboxybenzylidene)-6-hydroxycamphor	UPLC-MS/MS LOQ: 0.15 µg/l LOQ: 0.3 µg/l	0.5 mL urine
	MDI Methylenediphenyl-diisocyanate (101-68-8 und 26447-40-5)	MDA-Val-Hyd 5-isopropyl-3-[4-(4-aminobenzyl)phenyl]hydantoin (Hem adduct)	GC-HRMS-NCI LOQ: 0.05 ng MDA-Val-Hyd/g Globin	5 mL EDTA-stabilized blood
	2-MBT 2-Mercaptobenzothiazole (149-30-4)	MBT	UPLC-MS/MS LOQ: 1.0 µg/L	0.5 mL urine
	NMP N-Methyl-2-pyrrolidone (872-50-4)	5-HNMP (5-Hydroxy- <i>N</i> -Methyl-2-pyrrolidone) 2-HMSI (2-Hydroxy- <i>N</i> -methylsuccinimide)	GC-EI-MS/MS LOQ, both: 2.5 µg/L	1.0 mL urine (simultaneous determination of NMP and NEP)
	NEP N-Ethyl-2-pyrrolidone (2687-91-4)	5-HNEP (5-Hydroxy- <i>N</i> -Ethylpyrrolidone) 2-HESI (2-Hydroxy- <i>N</i> -ethylsuccinimide)	GC-EI-MS/MS LOQ, both: 2.5 µg/L	

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2012	CMI/MI (3:1) 5-Chloro-2-methyl-3-isothiazolinone / 2-Methylisothiazol-3(2H)-one (55965-84-9)	NMMA (N-methyl-malonamic acid (3-(methylamino)-3-oxopropanoic acid)) M-12 (Mercapturic acid metabolite: ((acetylamino)((3-(methylamino)-1-(methylthio)-3-oxopropyl)thio)-acetic acid))	GC-EI-MS/MS LOQ: 0.5 µg/L LC-MS/MS LOQ: 0.2 µg/L	0.1 mL urine
	Geraniol (106-24-1)	8-Carboxygeraniol Hildebrandt's acid 3-Hydroxy-citronellic acid Geranic acid	UPLC-MS/MS LOQ: 1.50 µg/L LOQ: 2.65 µg/L LOQ: 2.66 µg/L LOQ: 1.80 µg/L	1.0 mL urine
2013	TOTM, TEHTM Tri(2-ethylhexyl) trimellitat (3319-31-1)	1-MEHTM (1-mono-(2-ethylhexyl) trimellitat) 2-MEHTM (2-mono-(2-ethylhexyl) trimellitat) 5OH-1-MEHTM (1-mono-(2-ethyl-5-hydroxyhexyl) trimellitat) 5OH-2-MEHTM (2-mono-(2-ethyl-5-hydroxyhexyl) trimellitat) 5cx-1-MEPTM (1-mono-(2-ethyl-5-Carboxypentyl) trimellitat) 5cx-2-MEPTM (2-mono-(2-ethyl-5-Carboxypentyl) trimellitat)	UPLC-MS/MS (updated method from 2021) LOQ: 0.03 µg/L LOQ: 0.074 µg/L LOQ: 0.067 µg/L LOQ: 0.116 µg/L LOQ: 0.049 µg/L LOQ: 0.038 µg/L	1.0 mL urine
	DEHTP (or DEHT, DOTP) Di(2-ethylhexyl)-terephthalate (6422-86-2)	5cx-MEPTP 5OH-MEHTP 2cx-MMHTP 5oxo-MEHTP	Online-SPE-LC-MS/MS LOQ: 0.2 µL LOQ: 0.3 µL LOQ: 0.4 µL LOQ: 0.2 µL	0.3 mL urine
	BHT 2,6 Di-tert-butyl-p-cresol (Butylated Hydroxy-Toluene) (128-37-0)	BHT acid	LC-MS/MS LOQ: 0.2 µL	0.5 mL urine

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2014	DINA Diisononyladipate (33703-08-1)	OH-MINA (Mono(hydroxy-isononyl)adipate) oxo-MINA (Mono(oxo-isononyl)adipate) cx-MIOA (Mono(carboxy-isoctyl)adipate)	Online-SPE-LC-MS/MS LOQ: 0.3 µg/L LOQ: 0.3 µg/L LOQ: 0.6 µg/L	0.3 mL urine
	DEHA Di-(2-ethylhexyl)adipate 103-23-1	5OH-MEHA (mono-2-ethyl-5-hydroxyhexyl adipate) 5oxo-MEHA (mono-2-ethyl-5-oxohexyl adipate), 5cx-MEPA (mono-5-carboxy-2-ethylpentyl adipate)	Online-SPE-HPLC-MS/MS LOQ: 0.05 µg/L LOQ: 0.1 µg/L LOQ: 0.05 µg/L	0.3 mL urine
	OC Octocrylene, 2-Ethylhexyl 2-cyano-3,3-diphenyl-2-propenoate (6197-30-4)	CPAA (2-cyano-3,3-diphenyl-acrylic acid) DOCCA (2-(carboxymethyl) butyl 2-cyano-3,3-diphenyl Acrylate) 5OH-OC (2-ethyl-5-hydroxyhexyl 2-cyano-3,3-diphenyl acrylate)	Online-SPE-LC-MS/MS LOQ: 0.5 µg/L LOQ: 0.05 µg/L LOQ: 0.015 µg/L	0.3 mL urine
	Lysmeral 2-(4-tert-Butylbenzyl)propionaldehyde (80-54-6)	TBBA (tert-butylbenzoic acid) Lysmerylic acid Lysmerol OH-Lysmerylic acid	LC-MS/MS LOQ: 0.42 µg/L; LOQ: 0.36 µg/L LOQ: 0.10 µg/L LOQ: 0.45 µg/L	1.0 mL urine

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2015	EHS 2-Ethylhexylsalicylate (Octisalate) (118-60-5)	5OH-EHS (2-ethyl-5-hydroxyhexyl 2-hydroxybenzoate) 5oxo-EHS (2-ethyl-5-oxo- hexyl-2-hydroxy-benzoate) 5cx-EHS (5-(((2-hydroxybe- nzoyl)oxy)methyl)- heptanoic acid)	online-SPE-HPLC- MS/MS LOQ: 0.05 µg/L LOQ: 0.15 µg/L LOQ: 0.01 µg/L	0.3 mL urine
	Climbazole 1-(4-Chlorophenoxy)-1- (imidazol-1-yl)3,3- dimethylbutan-2-one) (38083-17-9)	Cx-OH-Clim (Carboxy- Hydroxy-Climbazole) (OH)₂-Clim (Dihydroxy- Climbazole) →always as Diastereomeric mixtures (1:1)	UHPLC-MS/MS LOD: 0.5 µg/L LOQ: 1.5 µg/L LOD: 0.5 µg/L LOQ: 1.5 µg/L	0.5 mL urine
	UV 328, Tinuvin 328 2-(2H-Benzotriazol-2-yl)- 4,6-di-tert-pentylphenol (25973-55-1)	UV 328 UV 328-4/3-CO UV 328-6/3-CO UV 328-4/3-OH UV 328-6/3-OH UV 328- BT-OH UV 328-4/3-CO-6/3-OH UV 328 UV 328-4/3-CO UV 328-6/3-CO UV 328-4/3-OH UV 328-6/3-OH UV 328- BT-OH UV 328-4/3-CO-6/3-OH	GC-MS/MS LOQ: 0.3 µg/L LOQ: 0.4 µg/L LOQ: 0.5 µg/L LOQ: 0.3 µg/L LOQ: 0.4 µg/L LOQ: 0.4 µg/L LOQ: 0.4 µg/L LOQ: 0.3 µg/L GC-MS/MS LOQ: 0.4 µg/L LOQ: 0.2 µg/L LOQ: 0.4 µg/L LOQ: 0.3 µg/L LOQ: 0.3 µg/L LOQ: 0.4 µg/L LOQ: 0.3 µg/L	1.0 mL urine 1.0 mL blood
	7-Hydroxycitronellal (107-75-5)	7-Hydroxy-citronellylic acid	UPLC-MS/MS LOQ: 0.5 µL	1.0 mL urine

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2016	TDCPP Tris(2-chlor-1-(chlormethyl)ethyl)phosphat (13674-87-8)	BDCPP (Bis(1,3-dichloropropyl)phosphat)	LC-MS/MS LOQ: 0.2 µg/L	5.0 mL urine
	DnBA Di-n-butyladipate (105-99-7)	MnBA (Mono-n-butyladipate), 3OH-MnBA (3-Hydroxy-mono-n-butyladipate) 3cx-MnPrA (3-Carboxy-mono-n-propyladipate)	HPLC-ESI-QqQ-MS/MS BG: 0.05 µg/L BG: 0.1 µg/L BG: 0.5 µg/L	0.3 mL urine
	DHNB Uvinul A Plus Diethylamino-hydroxybenzoyl-hexylbenzoat (302776-68-7)	AHB (Amino-hydroxybenzoylbenzoessäure) EHB (Ethylamino-hydroxybenzoyl-hexylbenzoessäure) DHB (Diethylamino-hydroxybenzoylbenzoessäure)	LC-MS/MS LOQ: 0.1 µg/L LOQ: 0.1 µg/L LOQ: 0.05 µg/L	1.0 mL urine
2017	Ethoxyquin 6-ethoxy-2,2,4-trimethyl-1,2-dihydroquinoline (91-53-2)	EQI 2,2,4-trimethyl-6(2H)-quinoline	UHPLC-MS/MS LOQ: 0.03 µg/L	3.0 mL urine
	UV 327, Tinuvin 327 2,4-di-tert-butyl-6-(5-chloro-benzotriazol-2-yl)phenol (3864-99-1)	UV 327 UV 327-6-mcx UV 327-6-mOH UV 327-4-mcx UV 327-4-mOH UV 327-4-mOH-6-mcx UV 327-4+6-diOH UV 327-4-mcx-6-mOH	GC-MS/MS LOQ: 0.17 µg/L LOQ: 0.16 µg/L LOQ: 0.15 µg/L LOQ: 0.17 µg/L LOQ: 0.16 µg/L LOQ: 0.31 µg/L LOQ: 0.21 µg/L LOQ: 0.15 µg/L	2.0 mL urine (method for blood in develop.)

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2018	2-Phenoxyethanol (122-99-6)	PhAA (Phenoxy acetic acid) 4-OH-PhAA (4-Hydroxyphenoxy acetic acid)	LC-MS/MS LOQ: 10 µg/L LOQ: 20 µg/L	0.02 mL urine
	Homosalate 3,3,5-Trimethylcyclohexyl 2-hydroxybenzoate (118-56-9)	tHMS-CA (<i>trans</i> -5-((2-hydroxybenzoyl)oxy)-3,3-dimethylcyclohexan-1-carboxylic acid) cHMS-CA (<i>cis</i> -5-((2-hydroxybenzoyl)oxy)-3,3-dimethylcyclohexan-1-carboxylic acid) 3OH-tHMS (3-Hydroxy- <i>trans</i> -3,5,5-trimethylcyclohexyl-2-hydroxybenzoate) 3OH-cHMS (3-Hydroxy- <i>cis</i> -3,5,5-trimethylcyclohexyl-2-hydroxybenzoate)	LC-MS/MS LOQ: 10 µg/L LOQ: 20 µg/L Online-SPE-LC-MS/MS LOQ: 0.03 µg/L LOQ: 0.02 µg/L LOQ: 0.02 µg/L LOQ: 0.04 µg/L	0.2 mL blood 0.3 mL urine
2019	2,4-DTBP , Arvin 4 2,4-Di- <i>tert</i> -butylphenol (96-76-4)	DTBP DTBP-OH (2- <i>tert</i> -Butyl-4-(1,1-dimethyl-2-hydroxyethyl)phenol)	LC-MS/MS LOQ: both 1.0 µg/L	0.5 mL urine
2020	TMDD 2,4,7,9-Tetramethyl-5-decyne-4,7-diol (126-86-3)	1-OH-TMDD (2,4,7,9-Tetramethyl-5-decyne-1,4,7-triol)	UPLC-MS/MS LOQ: 0.05 µg/L	1.0 mL urine