

These chemicals are either currently being measured or planned to be measured in blood, serum or urine specimens from NHANES by the Division of Laboratory Sciences (DLS), National Center for Environmental Health, CDC. The chemicals were chosen based on potential for human exposure, known or potential health effects from exposure, and technical feasibility of measurement. To be reported, results for these chemicals must pass DLS quality control and quality assurance criteria for accuracy, precision, analytical sensitivity and analytical specificity.

Chemical / Metabolite Name	Matrix	03-04	05-06	07-08	09-10
<b>Tobacco Smoke</b>					
Cotinine	serum	•	•	•	•
4-(Methylnitrosamino)-1-(3-pyridyl)-1-Butanol (NNAL)	urine			•	•
<b>Metals</b>					
Lead	whole blood	•	•	•	•
Lead	urine	•	•	•	•
Cadmium	whole blood	•	•	•	•
Cadmium	urine	•	•	•	•
Mercury (total)	whole blood	•	•	•	•
Mercury (total)	urine	•	•	•	•
Inorganic Mercury	whole blood	•	•	•	•
Methyl Mercury	whole blood				•
Ethyl Mercury	whole blood				•
Arsenic (total)	urine	•	•	•	•
Arsenous (III) acid	urine	•	•	•	•
Arsenic (V) acid	urine	•	•	•	•
Monomethylarsonic acid	urine	•	•	•	•
Dimethylarsinic acid	urine	•	•	•	•
Arsenobetaine	urine	•	•	•	•
Arsenocholine	urine	•	•	•	•
Trimethylarsine oxide	urine	•	•	•	•
Antimony	urine	•	•	•	•
Barium	urine	•	•	•	•
Beryllium	urine	•	•	•	•
Cesium	urine	•	•	•	•
Cobalt	urine	•	•	•	•
Molybdenum	urine	•	•	•	•
Platinum	urine	•	•	•	•
Thallium	urine	•	•	•	•
Tungsten	urine	•	•	•	•
Uranium	urine	•	•	•	•
<b>Phytoestrogens</b>					
Daidzein	urine	•	•	•	•
Enterodiol	urine	•	•	•	•
Enterolactone	urine	•	•	•	•
Equol	urine	•	•	•	•
Genistein	urine	•	•	•	•
O-Desmethylangolensin	urine	•	•	•	•
<b>Phthalates</b>					
Mono-methyl phthalate	urine	•	•	•	
Mono-ethyl phthalate	urine	•	•	•	•
Mono-n-butyl phthalate	urine	•	•	•	•
Mono-iso-butyl phthalate	urine	•	•	•	•
Mono-benzyl phthalate	urine	•	•	•	•
Mono-cyclohexyl phthalate	urine	•	•	•	
Mono-2-ethylhexyl phthalate	urine	•	•	•	•
Mono-(2-ethyl-5-oxohexyl) phthalate	urine	•	•	•	•
Mono-(2-ethyl-5-hydroxyhexyl) phthalate	urine	•	•	•	•
Mono-(3-carboxypropyl) phthalate	urine	•	•	•	•
Mono-n-octyl phthalate	urine	•	•	•	
Mono-isononyl phthalate	urine	•	•	•	
Mono-(2-ethyl-5-carboxypentyl) phthalate	urine	•	•	•	•
Mono-(2,6-dimethyl-6-carboxyhexyl) phthalate	urine			•	•
Mono-(2,7-dimethyl-7-carboxyheptyl) phthalate	urine			•	•

Chemical / Metabolite Name	Matrix	03-04	05-06	07-08	09-10
<b>Polycyclic Aromatic Hydrocarbons</b>					
2-Hydroxyfluorene	urine	•	•	•	•
3-Hydroxyfluorene	urine	•	•	•	•
9-Hydroxyfluorene	urine	•	•	•	•
1-Hydroxyphenanthrene	urine	•	•	•	•
2-Hydroxyphenanthrene	urine	•	•	•	•
3-Hydroxyphenanthrene	urine	•	•	•	•
4-Hydroxyphenanthrene	urine	•	•	•	•
1-Hydroxypyrene	urine	•	•	•	•
1-Hydroxynaphthalene (1-Naphthol)	urine	•	•	•	•
2-Hydroxynaphthalene (2-Naphthol)	urine	•	•	•	•
<b>PAH Hemoglobin Adducts</b>					
(+/-)-Benzo[a]pyrene-r-7,t-8,t-9,c-10-tetrol	packed cells				•
(+/-)-Benzo[a]pyrene-r-7,t-8,t-9,t-10-tetrol	packed cells				•
(+/-)-Benzo[a]pyrene-r-7,t-8,c-9,t-10-tetrol	packed cells				•
(+/-)-Benzo[a]pyrene-r-7,t-8,c-9,c-10-tetrol	packed cells				•
<b>Methylated Naphthols</b>					
4-Methyl-2-Naphthol, 7-Methyl-2-Naphthol, and 6-Methyl-2-Naphthol	urine				•
7-Methyl-1-Naphthol, 8-Methyl-2-Naphthol, and 3-Methyl-1-Naphthol	urine				•
1-Methyl-2-Naphthol and 8-Methyl-1-Naphthol	urine				•
3-Methyl-2-Naphthol and 6-Methyl-1-Naphthol	urine				•
4-Methyl-1-Naphthol	urine				•
2-Methyl-1-Naphthol	urine				•
5-Methyl-1-Naphthol	urine				•
5-Methyl-2-Naphthol	urine				•
<b>Organophosphate Insecticides: Dialkyl Phosphate Metabolites</b>					
Dimethylphosphate	urine	•	•	•	•
Dimethylthiophosphate	urine	•	•	•	•
Dimethyldithiophosphate	urine	•	•	•	•
Diethylphosphate	urine	•	•	•	•
Diethylthiophosphate	urine	•	•	•	•
Diethyldithiophosphate	urine	•	•	•	•
<b>Organophosphate Insecticides: Specific Pesticides and Metabolites</b>					
Malathion dicarboxylic acid	urine	•	•	•	•
Chlorpyrifos	plasma			•	•
3,5,6-Trichloro-2-pyridinol	urine	•	•	•	•
Diazinon	plasma			•	•
2-Isopropyl-4-methyl-6-hydroxypyrimidine	urine	•	•	•	•
Methyl parathion	plasma			•	•
Parathion	plasma			•	•
<i>para</i> -Nitrophenol	urine	•	•	•	•
Dimethoate	urine	•	•	•	•
O-methoate	urine	•	•	•	•
2-(diethylamino)-6-methylpyrimidin-4-ol/one	urine	•	•	•	•
3-Chloro-7-hydroxy-4-methyl-2H-chromen-2-one/ol	urine	•	•	•	•
5-Chloro-1,2-dihydro-1-isopropyl-[3H]-1,2,4-triazol-3-one	urine	•	•	•	•
Dichlorovos	plasma			•	•
Fonophos	plasma			•	•
Phorate	plasma			•	•
Terbufos	plasma			•	•
Acephate	urine	•	•	•	•
Methamidaphos	urine	•	•	•	•

Chemical / Metabolite Name	Matrix	03-04	05-06	07-08	09-10
<b>Pyrethroid Pesticides</b>					
<i>trans</i> -Permethrin	plasma			•	•
<i>cis</i> -Permethrin	plasma			•	•
<i>cis</i> -3-(2,2-Dichlorovinyl)-2,2-dimethylcyclopropane carboxylic acid	urine	•	•	•	•
<i>trans</i> -3-(2,2-Dichlorovinyl)-2,2-dimethylcyclopropane carboxylic acid	urine	•	•	•	•
3-Phenoxybenzoic acid	urine	•	•	•	•
4-Fluoro-3-phenoxybenzoic acid	urine	•	•	•	•
<i>cis/trans</i> -Dimethylvinylcyclopropane carboxylic diacid	urine	•	•	•	•
<i>cis</i> -3-(2,2-Dibromovinyl)-2,2-dimethylcyclopropane carboxylic acid	urine	•	•	•	•
Cyfluthrin	plasma			•	•
Cyhalothrin	plasma			•	•
Cypermethrin	plasma			•	•
Deltamethrin	plasma			•	•
Resmethrin	plasma			•	•
Tetramethrin	plasma			•	•
<b>Organochlorine Pesticides</b>					
Hexachlorobenzene	serum	•	•	•	•
<i>beta</i> -Hexachlorocyclohexane	serum	•	•	•	•
<i>gamma</i> -Hexachlorocyclohexane	serum	•	•	•	•
<i>p,p'</i> -DDT	serum	•	•	•	•
<i>p,p'</i> -DDE	serum	•	•	•	•
<i>o,p'</i> -DDT	serum	•			
Oxychlordane	serum	•	•	•	•
<i>trans</i> -Nonachlor	serum	•	•	•	•
Heptachlor Epoxide	serum	•			
Mirex	serum	•	•	•	•
Aldrin	serum	•			
Dieldrin	serum	•			
Endrin	serum	•			
alpha-Hexachlorocyclohexane (HCCH)	serum		•	•	•
<i>cis</i> -Chlordane (or alpha)	serum		•	•	•
<i>trans</i> -Chlordane (or gamma)	serum		•	•	•
<i>cis</i> -Nonachlor	serum		•	•	•
<i>o,p'</i> -DDE	serum		•	•	•
Octachlorosytrene	serum		•	•	•
Pentachloroanisole	serum		•	•	•
Monohydroxy methoxychlor	urine	•	•	•	•
Dihydroxy methoxychlor	urine	•	•	•	•
Endosulfan-ether	urine	•	•	•	•
Endosulfan-lactone	urine	•	•	•	•
Endosulfan-sulfate	urine	•	•	•	•
<b>Other Pesticides</b>					
Propoxur	plasma			•	•
2-Isopropoxyphenol	urine	•	•	•	•
Carbofuranphenol	urine	•	•	•	•
N,N-diethyl-3-methylbenzamide (DEET)	plasma	•	•	•	•
N,N-diethyl-3-methylbenzamide (DEET)	urine	•	•	•	•
3-(diethylcarbamoyl) benzoic acid (DEET acid)	urine		•	•	•
N-ethyl-3-methylbenzamide (Desethyl DEET)	urine		•	•	•
N,N-diethyl-3-hydroxymethylbenzamide (Desethyl hydroxy DEET)	urine		•	•	•
2,5-Dichlorophenol	urine	•	•	•	•
Bendiocarb	plasma			•	•
Piperonyl butoxide	plasma			•	•

Chemical / Metabolite Name	Matrix	03-04	05-06	07-08	09-10
<b>Fungicides</b>					
<i>ortho</i> -Phenylphenol	urine	•	•	•	
Chlorothalonil	serum	•	•	•	•
Metalaxyl	serum	•	•	•	•
Dichloran	serum	•	•	•	•
Ethylenethio urea (ETU)	urine	•	•	•	•
Propylenethio urea (PTU)	urine	•	•	•	•
Phthalimide	serum	•	•	•	•
Tetrahydrophthalimide	serum	•	•	•	•
<b>Herbicides: Substituted Ureas</b>					
Diuron	urine	•	•	•	•
Linuron	urine	•	•	•	•
Dimethoxy pyrimidine	urine	•	•	•	•
Dimethyl pyrimidine	urine	•	•	•	•
Dichlorophenyl methyl urea	urine	•	•	•	•
Dichlorophenyl urea	urine	•	•	•	•
Methyl methoxytriazine	urine	•	•	•	•
Bensulfuron-methyl	urine	•	•	•	•
Foramsulfuron	urine	•	•	•	•
Halosulfuron	urine	•	•	•	•
Nicosulfuron	urine	•	•	•	•
Primisulfuron-methyl	urine	•	•	•	•
Rimsulfuron	urine	•	•	•	•
Sulfometuron-methyl	urine	•	•	•	•
Sulfosulfuron	urine	•	•	•	•
Chlorsulfuron	urine	•	•	•	•
Oxasulfuron	urine	•	•	•	•
Ethametsulfuron-methyl	urine	•	•	•	•
Mesosulfuron-methyl	urine	•	•	•	•
Metsulfuron-methyl	urine	•	•	•	•
Prosulfuron	urine	•	•	•	•
Thifensulfuron-methyl	urine	•	•	•	•
Triasulfuron	urine	•	•	•	•
Triflusulfuron-methyl	urine	•	•	•	•
<b>Other Herbicides</b>					
2,4,5-Trichlorophenoxyacetic acid	urine	•	•	•	•
2,4-Dichlorophenoxyacetic acid	urine	•	•	•	•
2,4-Dichlorophenol	urine	•	•	•	•
Acetochlor	serum	•	•	•	•
Acetochlor mercapturate	urine	•	•	•	•
Alachlor	serum	•	•	•	•
Alachlor mercapturate	urine	•	•	•	•
Atrazine	serum	•	•	•	•
Atrazine	urine	•	•	•	•
Atrazine mercapturate	urine	•	•	•	•
Diaminochlorotriazine	urine	•	•	•	•
Desethylatrazine	urine	•	•	•	•
Desethylatrazine mercapturate	urine	•	•	•	•
Desisopropylatrazine	urine	•	•	•	•
Hydroxyatrazine	urine		•	•	•
Metolachlor	serum	•	•	•	•
Metolachlor mercapturate	urine	•	•	•	•
Glyphosate	urine		•	•	•
Dacthal	serum	•	•	•	•
Trifluralin	serum	•	•	•	•
Aminomethyl phosphonic acid	urine		•	•	•

Chemical / Metabolite Name	Matrix	03-04	05-06	07-08	09-10
<b>Halogenated Phenolic Compounds</b>					
2,4,5-Trichlorophenol	urine	•	•	•	
2,4,6-Trichlorophenol	urine	•	•	•	
Pentachlorophenol	serum		•	•	•
Pentachlorophenol	urine	•	•	•	•
5-Chloro-2-(2,4-dichlorophenoxy)-phenol (Triclosan)	serum		•	•	•
Pentabromophenol	serum		•	•	•
<b>Perfluorinated Compounds</b>					
Perfluorooctanoic acid	serum	•	•	•	•
Perfluorooctane sulfonic acid	serum	•	•	•	•
Perfluorohexane sulfonic acid	serum	•	•	•	•
2-(N-Ethyl- Perfluorooctane sulfonamido) acetic acid	serum	•	•	•	
2-(N-Methyl-perfluorooctane sulfonamido) acetic acid	serum	•	•	•	•
Perfluorodecanoic acid	serum	•	•	•	•
Perfluorobutane sulfonic acid	serum	•	•	•	
Perfluoroheptanoic acid	serum	•	•	•	
Perfluorononanoic acid	serum	•	•	•	•
Perfluorooctane sulfonamide	serum	•	•	•	
Perfluoroundecanoic acid	serum	•	•	•	
Perfluorododecanoic acid	serum	•	•	•	
<b>Environmental Phenols</b>					
Bisphenol A	urine	•	•	•	•
2-Hydroxy-4-methoxybenzophenone (Benzophenone-3)	urine	•	•	•	•
4- <i>tert</i> -Octyl phenol	urine	•	•	•	
2,4,4'-Trichloro-2'-hydroxyphenyl ether (Triclosan)	urine	•	•	•	•
Methyl paraben	urine			•	•
Ethyl paraben	urine			•	•
Propyl paraben	urine			•	•
Butyl paraben	urine			•	•

Chemical / Metabolite Name	Matrix	03-04	05-06	07-08	09-10
<b>Polychlorinated Dibenzo-<i>p</i>-dioxins and Dibenzofurans</b>					
1,2,3,4,6,7,8,9-Octachlorodibenzo- <i>p</i> -dioxin (OCDD)	serum	•	pooled samples	•	pooled samples
1,2,3,4,6,7,8-Heptachlorodibenzo- <i>p</i> -dioxin (HpCDD)	serum	•	pooled samples	•	pooled samples
1,2,3,4,7,8-Hexachlorodibenzo- <i>p</i> -dioxin (HxCDD)	serum	•	pooled samples	•	pooled samples
1,2,3,6,7,8-Hexachlorodibenzo- <i>p</i> -dioxin (HxCDD)	serum	•	pooled samples	•	pooled samples
1,2,3,7,8,9-Hexachlorodibenzo- <i>p</i> -dioxin (HxCDD)	serum	•	pooled samples	•	pooled samples
1,2,3,7,8-Pentachlorodibenzo- <i>p</i> -dioxin (PeCDD)	serum	•	pooled samples	•	pooled samples
2,3,7,8-Tetrachlorodibenzo- <i>p</i> -dioxin (TCDD)	serum	•	pooled samples	•	pooled samples
1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	serum	•	pooled samples	•	pooled samples
1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	serum	•	pooled samples	•	pooled samples
1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	serum	•	pooled samples	•	pooled samples
1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	serum	•	pooled samples	•	pooled samples
1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	serum	•	pooled samples	•	pooled samples
1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	serum	•	pooled samples	•	pooled samples
1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	serum	•	pooled samples	•	pooled samples
2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	serum	•	pooled samples	•	pooled samples
2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	serum	•	pooled samples	•	pooled samples
2,3,7,8-Tetrachlorodibenzofuran (TCDF)	serum	•	pooled samples	•	pooled samples

Chemical / Metabolite Name	Matrix	03-04	05-06	07-08	09-10
<b>Polybrominated Dibenzo-<i>p</i>-dioxins and Dibenzofurans</b>					
2,3,7,8-Tetrabromodibenzo- <i>p</i> -dioxin (TBDD)	serum		pooled samples	•	pooled samples
1,2,3,7,8-Pentabromodibenzo- <i>p</i> -dioxin (PeBDD)	serum		pooled samples	•	pooled samples
1,2,3,4,7,8-Hexabromodibenzo- <i>p</i> -dioxin (HxBDD)	serum		pooled samples	•	pooled samples
1,2,3,6,7,8-Hexabromodibenzo- <i>p</i> -dioxin (HxBDD)	serum		pooled samples	•	pooled samples
1,2,3,7,8,9-Hexabromodibenzo- <i>p</i> -dioxin (HxBDD)	serum		pooled samples	•	pooled samples
1,2,3,4,6,7,8-Heptabromodibenzo- <i>p</i> -dioxin (HpBDD)	serum		pooled samples		pooled samples
1,2,3,4,6,7,8,9-Octabromodibenzo- <i>p</i> -dioxin (OBDD)	serum		pooled samples	•	pooled samples
2,3,7,8,-Tetrabromodibenzofuran (TBDF)	serum		pooled samples	•	pooled samples
1,2,3,7,8-Pentabromodibenzofuran (PeBDF)	serum		pooled samples	•	pooled samples
2,3,4,7,8-Pentabromodibenzofuran (PeBDF)	serum		pooled samples	•	pooled samples
1,2,3,4,7,8-Hexabromodibenzofuran (HxBDF)	serum		pooled samples	•	pooled samples
1,2,3,4,6,7,8-Heptabromodibenzofuran (HpBDF)	serum		pooled samples	•	pooled samples
1,2,3,4,6,7,8,9-Octabromodibenzofuran (OBDF)	serum		pooled samples	•	pooled samples
<b>Dioxin-like Polychlorinated Biphenyls - cPCBs</b>					
3,3',4,4'-Tetrachlorobiphenyl (PCB 77)	serum		pooled samples	•	pooled samples
3,4,4',5-Tetrachlorobiphenyl (PCB 81)	serum	•	pooled samples	•	pooled samples
3,3',4,4',5-Pentachlorobiphenyl (PCB 126)	serum	•	pooled samples	•	pooled samples
3,3',4,4',5,5'-Hexachlorobiphenyl (PCB 169)	serum	•	pooled samples	•	pooled samples
<b>Dioxin-like Polychlorinated Biphenyls - mPCBs</b>					
2,4,4'-Trichlorobiphenyl (PCB 28)	serum	•	•	•	•
2,3',4,4'-Tetrachlorobiphenyl (PCB 66)	serum	•	•	•	•
2,4,4',5-Tetrachlorobiphenyl (PCB 74)	serum	•	•	•	•
2,3,3',4,4'-Pentachlorobiphenyl (PCB 105)	serum	•	•	•	•
2,3,3',4,4'-Pentachlorobiphenyl (PCB 114)	serum		•	•	•
2,3',4,4',5-Pentachlorobiphenyl (PCB 118)	serum	•	•	•	•
2',3,4,4',5-Pentachlorobiphenyl (PCB 123)	serum		•	•	•
2,3,3',4,4',5-Hexachlorobiphenyl (PCB 156)	serum	•	•	•	•
2,3,3',4,4',5'-Hexachlorobiphenyl (PCB 157)	serum	•	•	•	•
2,3',4,4',5,5'-Hexachlorobiphenyl (PCB 167)	serum	•	•	•	•
2,3,3',4,4',5,5'-Heptachlorobiphenyl (PCB 189)	serum	•	•	•	•

Chemical / Metabolite Name	Matrix	03-04	05-06	07-08	09-10
<b>Non-dioxin-like Polychlorinated Biphenyls</b>					
2,2',3,5'-Tetrachloro biphenyl (PCB 44)	serum	•	•	•	•
2,2',4,5'-Tetrachloro biphenyl (PCB 49)	serum	•	•	•	•
2,2',5,5'-Tetrachlorobiphenyl (PCB 52)	serum	•	•	•	•
2,2',3,4,5'-Pentachlorobiphenyl (PCB 87)	serum	•	•	•	•
2,2',4,4',5'-Pentachlorobiphenyl (PCB 99)	serum	•	•	•	•
2,2',4,5,5'-Pentachlorobiphenyl (PCB 101)	serum	•	•	•	•
2,3,3',4',6-Pentachlorobiphenyl (PCB 110)	serum	•	•	•	•
2,2',3,3',4,4'-Hexachlorobiphenyl (PCB 128)	serum	•	•	•	•
2,2',3,4,4',5' and 2,3,3',4,4',6-Hexachlorobiphenyl (PCB 138 & 158)	serum	•	•	•	•
2,2',3,4',5,5'-Hexachlorobiphenyl (PCB 146)	serum	•	•	•	•
2,2',3,4',5',6-Hexachlorobiphenyl (PCB 149)	serum	•	•	•	•
2,2',3,5,5',6-Hexachlorobiphenyl (PCB 151)	serum	•	•	•	•
2,2',4,4',5,5'-Hexachlorobiphenyl (PCB 153)	serum	•	•	•	•
2,2',3,3',4,4',5-Heptachlorobiphenyl (PCB 170)	serum	•	•	•	•
2,2',3,3',4,5,5'-Heptachlorobiphenyl (PCB 172)	serum	•	•	•	•
2,2',3,3',4,5',6-Heptachlorobiphenyl (PCB 177)	serum	•	•	•	•
2,2',3,3',5,5',6-Heptachlorobiphenyl (PCB 178)	serum	•	•	•	•
2,2',3,4,4',5,5'-Heptachlorobiphenyl (PCB 180)	serum	•	•	•	•
2,2',3,4,4',5',6-Heptachlorobiphenyl (PCB 183)	serum	•	•	•	•
2,2',3,4',5,5',6-Heptachlorobiphenyl (PCB 187)	serum	•	•	•	•
2,2',3,3',4,4',5,5'-Octachlorobiphenyl (PCB 194)	serum	•	•	•	•
2,2',3,3',4,4',5,6-Octachlorobiphenyl (PCB 195)	serum	•	•	•	•
2,2',3,3',4,4',5,6' and 2,2',3,4,4',5,5',6-Octachlorobiphenyl (PCB 196 & 203)	serum	•	•	•	•
2,2',3,3',4,5,5',6-Octachlorobiphenyl (PCB 199) (change in nomenclature; previously referred to as PCB 201)	serum	•	•	•	•
2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl (PCB 206)	serum	•	•	•	•
2,2',3,3',4,4',5,5',6'-Decachloro biphenyl (PCB 209)	serum	•	•	•	•
<b>Hydroxylated Polychlorinated Biphenyls</b>					
2,3,3',4',5-pentachloro-4-biphenylol (4-HO-CB107)	serum		•	•	•
2,2',3,4',5,5'-hexachloro-4-biphenylol (4-HO-CB146)	serum		•	•	•
2,2',3,4',5,5,6'-heptachloro-4-biphenylol (4-HO-CB187)	serum		•	•	•
<b>Polybrominated Diphenyl Ethers</b>					
2,2',4'-Tribromodiphenyl ether (BDE 17)	serum	•	•	•	•
2,4,4'-Tribromodiphenyl ether (BDE 28)	serum	•	•	•	•
2,2',4,4'-Tetrabromodiphenyl ether (BDE 47)	serum	•	•	•	•
2,3',4,4'-Tetrabromodiphenyl ether (BDE 66)	serum	•	•	•	•
2,2',3,4,4'-Pentabromodiphenyl ether (BDE 85)	serum	•	•	•	•
2,2',4,4',5-Pentabromodiphenyl ether (BDE 99)	serum	•	•	•	•
2,2',4,4',6-Pentabromodiphenyl ether (BDE 100)	serum	•	•	•	•
2,2',4,4',5,5'-Hexabromobiphenyl (BB 153)	serum	•	•	•	•
2,2',4,4',5,6'-Hexabromodiphenyl ether (BDE 154)	serum	•	•	•	•
2,2',4,4',5,5'-Hexabromodiphenyl ether (BDE 153)	serum	•	•	•	•
2,2',3,4,4',5',6-Heptabromodiphenyl ether (BDE 183)	serum	•	•	•	•
2,2',3,3',4,4',5,5',6'-Decabromodiphenyl ether (BDE 209)	serum		•	•	•
Hexabromobenzene (HBB)	serum		•	•	•
<b>Polychlorinated Naphthalenes</b>					
1,2,3,4-Tetrachlorinated naphthalene (PCN 27)	serum			•	•
1,2,3,5,7- and 1,2,4,6,7-Pentachlorinated naphthalene (PNC 52 & 60)	serum			•	•
1,2,3,4,5,7- and 1,2,3,5,6,8-Hexachlorinated naphthalene (PNC 64 & 68)	serum			•	•
1,2,3,4,6,7- and 1,2,3,5,6,7-Hexachlorinated naphthalene (PNC 66 & 67)	serum			•	•
1,2,3,5,7,8-Hexachlorinated naphthalene (PCN 69)	serum			•	•
1,2,3,4,5,6,7-Heptachlorinated naphthalene (PCN 73)	serum			•	•
<b>Toxaphenes</b>					
Parlar 26 2-Endo,3-exo,5-endo,6-exo,8b,8c,10a,10c-octachlorobornane	serum		•	•	•
Parlar 50 2-Endo,3-exo,5-endo,6-exo,8b,8c,9c,10a,10c-nonachlorobornane	serum		•	•	•
Parlar 62 2,2,5,5,8c,9b,9c,10a,10b-nonachlorobornane	serum		•	•	•



Chemical / Metabolite Name	Matrix	03-04	05-06	07-08	09-10
<b>Volatile Organic Compounds (VOCs)</b>					
1,1,1-Trichloroethane	whole blood	•	•	•	•
1,1,2,2-Tetrachloroethane	whole blood	•	•	•	•
1,1,2-Trichloroethane	whole blood	•	•	•	•
1,1-Dichloroethane	whole blood	•	•	•	•
1,1-Dichloroethene	whole blood	•	•	•	•
1,2-dibromo-3-chloropropane	whole blood	•	•	•	•
1,2-Dichlorobenzene	whole blood	•	•	•	•
1,2-Dichloroethane	whole blood	•	•	•	•
1,2-Dichloropropane	whole blood	•	•	•	•
1,3-Dichlorobenzene	whole blood	•	•	•	•
1,4-Dichlorobenzene	whole blood	•	•	•	•
2,5-Dimethylfuran	whole blood	•	•	•	•
Acrylonitrile	whole blood			•	•
Benzene	whole blood	•	•	•	•
Bromodichloromethane	whole blood	•	•	•	•
Bromodichloromethane	water	•	•	•	•
Bromoform	whole blood	•	•	•	•
Bromoform	water	•	•	•	•
Carbon Tetrachloride	whole blood	•	•	•	•
Chlorobenzene	whole blood	•	•	•	•
Chloroform	whole blood	•	•	•	•
Chloroform	water	•	•	•	•
<i>cis</i> -1,2-Dichloroethene	whole blood	•	•	•	•
Dibromochloromethane	whole blood	•	•	•	•
Dibromochloromethane	water	•	•	•	•
Dibromomethane	whole blood	•	•	•	•
Ethylbenzene	whole blood	•	•	•	•
Furan	whole blood			•	•
Hexachloroethane	whole blood	•	•	•	•
m/p-Xylene	whole blood	•	•	•	•
Methylene Chloride	whole blood	•	•	•	•
Methyl-tert-Butyl Ether (MTBE)	whole blood	•	•	•	•
Methyl-tert-Butyl Ether (MTBE)	water	•	•	•	•
Nitrobenzene	whole blood	•	•	•	•
o-Xylene	whole blood	•	•	•	•
Styrene	whole blood	•	•	•	•
Tetrachloroethene	whole blood	•	•	•	•
Toluene	whole blood	•	•	•	•
<i>trans</i> -1,2-Dichloroethene	whole blood	•	•	•	•
Trichloroethene	whole blood	•	•	•	•
1,4-Dioxane	whole blood			•	•
1,2-Dibromoethane	whole blood			•	•
n-Hexane	whole blood			•	•
Nitromethane	whole blood			•	•
1,1,1,2-Tetrachloroethane	whole blood			•	•
Cumene	whole blood			•	•
1,2,3-Trichloropropane	whole blood			•	•
<b><i>trans</i> Fatty Acids</b>					
<i>trans</i> -9-Hexadecenoic acid	plasma		•	•	•
<i>trans</i> -9-Octadecenoic acid	plasma		•	•	•
<i>trans,trans</i> -9,12-Octadecadienoic acid	plasma		•	•	•
<i>trans</i> -6-Octadecanoic acid	plasma			•	•
<i>trans</i> -11-Octadecanoic acid	plasma			•	•

Chemical / Metabolite Name	Matrix	03-04	05-06	07-08	09-10
<b>Other</b>					
Perchlorate	urine	•	•	•	•
Perchlorate	water		•	•	•
Thiocyanate	urine		•	•	•
Nitrate	urine		•	•	•
Nitrate	water		•	•	•
Iodide	water	•	•	•	•
Ethylene Oxide	packed cells				•
Acrylamide	packed cells	•	•	•	•
Glycidamide	packed cells	•	•	•	•