

Chemicals in the *Fourth Report: Updated Tables, August 2014*

CDC’s *Fourth National Report on Human Exposure to Environmental Chemicals: Updated Tables* provides exposure data on the following chemicals or classes of chemicals. The Updated Tables contain cumulative data from national samples collected beginning in 1999–2000 and as recently as 2011–2012. Not all chemicals were measured in each national sample. The data tables are available at <http://www.cdc.gov/exposurereport>. An asterisk (*) indicates the chemical has been added since publication of the *Fourth Report in* 2009.

Tobacco Smoke
Cotinine
NNAL*

Disinfection By-Products
Bromodichloromethane
Dibromochloromethane (Chlorodibromomethane)
Tribromomethane (Bromoform)
Trichloromethane (Chloroform)

Environmental Phenols
Benzophenone-3
Bisphenol A
4- <i>tert</i> -Octylphenol
Triclosan

Fungicides and Metabolites
<i>ortho</i> -Phenylphenol
Ethylene thiourea*
Pentachlorophenol
Propylene thiourea*

Herbicides and Metabolites
2,4-Dichlorophenoxyacetic acid
2,4,5-Trichlorophenoxyacetic acid

Sulfonyleurea Herbicides
Bensulfuron-methyl*
Chlorsulfuron*
Ethametsulfuron-methyl*
Foramsulfuron*
Halosulfuron*
Mesosulfuron-methyl*
Metsulfuron-methyl*
Nicosulfuron*
Oxasulfuron*
Primisulfuron-methyl*
Prosulfuron*
Rimsulfuron*
Sulfometuron-methyl*
Sulfosulfuron*
Thifensulfuron-methyl*
Triasulfuron*
Triflusulfuron-methyl*

Carbamate Pesticide Metabolites
Carbofuranphenol
2-Isopropoxyphenol

Organochlorine Pesticides and Metabolites
Aldrin
Dieldrin
Endrin
Heptachlor epoxide
<i>o,p'</i> -Dichlorodiphenyltrichloroethane (DDT)
2,4,5-Trichlorophenol
2,4,6-Trichlorophenol

Other Pesticide Metabolites
2,4-Dichlorophenol*
2,5-Dichlorophenol*

Organophosphorus Insecticides: Specific Metabolites
Acephate*
Dimethoate*
Methamidophos*
Omethoate*
Malathion dicarboxylic acid
2-Isopropyl-4-methyl-6-hydroxypyrimidine
<i>para</i> -Nitrophenol
3,5,6-Trichloro-2-pyridinol

Organophosphorus Insecticides: Dialkyl Phosphate Metabolites
Diethylphosphate (DEP)
Dimethylphosphate (DMP)
Diethylthiophosphate (DETP)
Dimethylthiophosphate (DMTP)
Diethyldithiophosphate (DEDTP)
Dimethyldithiophosphate (DMDTP)

Pyrethroid Metabolites
<i>trans</i> -3-(2,2-Dichlorovinyl)-2,2-dimethylcyclopropane carboxylic acid
<i>cis</i> -3-(2,2-Dibromovinyl)-2,2-dimethylcyclopropane carboxylic acid
4-Fluoro-3-phenoxybenzoic acid
3-Phenoxybenzoic acid

Metals and Metalloids
Antimony
Arsenic, Total
Arsenic (V) acid
Arsenobetaine
Arsenocholine
Arsenous (III) acid
Dimethylarsinic acid
Monomethylarsonic acid
Trimethylarsine oxide
Barium
Beryllium
Cadmium
Cesium
Cobalt
Lead
Manganese*
Mercury (total; inorganic; ethyl* and methyl species*)
Molybdenum
Platinum
Selenium*
Thallium
Tungsten
Uranium

Parabens
Butyl paraben*
Ethyl paraben*
Methyl paraben*
<i>n</i> -Propyl paraben*

Perchlorate and Other Anions
Nitrate*
Perchlorate
Thiocyanate*

Perfluorinated Compounds: Surfactants
Perfluorobutane sulfonic acid (PFBuS)
Perfluorodecanoic acid (PFDeA)
Perfluorododecanoic acid (PFDoA)
Perfluoroheptanoic acid (PFHpA)
Perfluorohexane sulfonic acid (PFHxS)
Perfluorononanoic acid (PFNA)
Perfluorooctanoic acid (PFOA)
Perfluorooctane sulfonic acid (PFOS)
Perfluorooctane sulfonamide (PFOSA)
2-(N-Ethyl-perfluorooctane sulfonamido) acetic acid (Et-PFOSA-AcOH)
2-(N-Methyl-perfluorooctane sulfonamido) acetic acid (Me-PFOSA-AcOH)
Perfluoroundecanoic acid (PFUA)

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Phthalate and Phthalate Alternative Metabolites
Mono-benzyl phthalate (MBzP) Mono-isobutyl phthalate (MiBP) Mono-n-butyl phthalate (MnBP) Mono-cyclohexyl phthalate (MCHP) Mono-ethyl phthalate (MEP) Mono-2-ethylhexyl phthalate (MEHP) Mono-(2-ethyl-5-hydroxyhexyl) phthalate (MEHHP) Mono-(2-ethyl-5-oxohexyl) phthalate (MEOHP) Mono-(2-ethyl-5-carboxypentyl) phthalate (MECPP) Mono-(carboxynonyl) phthalate (MCNP)* Mono-isononyl phthalate (MiNP) Mono-(carboxyoctyl) phthalate (MCOP)* Mono-methyl phthalate (MMP) Mono-(3-carboxypropyl) phthalate (MCPP) Mono-n-octyl phthalate (MOP)

Phytoestrogens and Metabolites
Daidzein Enterodiol Enterolactone Equol Genistein O-Desmethylangolensin

Polycyclic Aromatic Hydrocarbon Metabolites
2-Hydroxyfluorene 3-Hydroxyfluorene 9-Hydroxyfluorene 1-Hydroxyphenanthrene 2-Hydroxyphenanthrene 3-Hydroxyphenanthrene 4-Hydroxyphenanthrene 1-Hydroxypyrene 1-Hydroxynaphthalene (1-Naphthol) 2-Hydroxynaphthalene (2-Naphthol)

Volatile Organic Compounds (VOCs)
1,1,1-Trichloroethane (Methyl chloroform) 1,1,2,2-Tetrachloroethane 1,1,2-Trichloroethane 1,1-Dichloroethane 1,1-Dichloroethene (Vinylidene chloride) 1,2-Dibromo-3-chloropropane (DBCP) 1,2-Dichlorobenzene (o -Dichlorobenzene) 1,2-Dichloroethane (Ethylene dichloride) cis -1,2-Dichloroethene trans -1,2-Dichloroethene 1,2-Dichloropropane 1,3-Dichlorobenzene (m -Dichlorobenzene) 1,4-Dichlorobenzene (Paradichlorobenzene) 2,5-Dimethylfuran Benzene Chlorobenzene (Monochlorobenzene) Dibromomethane Dichloromethane (Methylene chloride) Ethylbenzene Hexachloroethane Methyl-tert -butyl ether (MTBE) Nitrobenzene Styrene Tetrachloroethene (Perchloroethylene) Tetrachloromethane (Carbon tetrachloride) Toluene Trichloroethene (Trichloroethylene) m-/p -Xylene o -Xylene

Metals and Metalloids (Adult Cigarette Smokers and Nonsmokers: Special Sample)
Antimony Arsenic, Total Arsenic (V) acid Arsenobetaine Arsenocholine Arsenous (III) acid Dimethylarsinic acid Monomethylarsonic acid Trimethylarsine oxide Barium Cadmium Cesium Cobalt Lead Manganese* Molybdenum Strontium* Thallium Tin* Tungsten Uranium

Perchlorate and Other Anions (Adult Cigarette Smokers and Nonsmokers: Special Sample)
Nitrate* Perchlorate Thiocyanate*

Polycyclic Aromatic Hydrocarbon Metabolites (Adult Cigarette Smokers and Nonsmokers: Special Sample)
2-Hydroxyfluorene 3-Hydroxyfluorene 9-Hydroxyfluorene 1-Hydroxyphenanthrene 2-Hydroxyphenanthrene 3-Hydroxyphenanthrene 4-Hydroxyphenanthrene 1-Hydroxypyrene 1-Hydroxynaphthalene (1-Naphthol) 2-Hydroxynaphthalene (2-Naphthol)

Volatile Organic Compound (VOC) Metabolites (Adult Cigarette Smokers and Nonsmokers: Special Sample)
N-Acetyl-S-(benzyl)-L-cysteine* N-Acetyl-S-(2-carbamoyl-2-hydroxyethyl)-L-cysteine* N-Acetyl-S-(2-carbamoylethyl)-L-cysteine* N-Acetyl-S-(2-carboxyethyl)-L-cysteine* N-Acetyl-S-(3-hydroxypropyl)-L-cysteine* N-Acetyl-S-(2-cyanoethyl)-L-cysteine* N-Acetyl-S-(1,2-dichlorovinyl)-L-cysteine* N-Acetyl-S-(2,2-dichlorovinyl)-L-cysteine* N-Acetyl-S-(dimethylphenyl)-L-cysteine* N-Acetyl-S-(N-methylcarbamoyl)-L-cysteine* N-Acetyl-S-(3,4-dihydroxybutyl)-L-cysteine* N-Acetyl-S-(2-hydroxy-3-butenyl)-L-cysteine* N-Acetyl-S-(4-hydroxy-2-butenyl)-L-cysteine* N-Acetyl-S-(1-hydroxymethyl-2-propenyl)-L-cysteine* N-Acetyl-S-(2-hydroxyethyl)-L-cysteine* N-Acetyl-S-(2-hydroxypropyl)-L-cysteine* N-Acetyl-S-(3-hydroxypropyl-1-methyl)-L-cysteine* N-Acetyl-S-(phenyl)-L-cysteine* t,t -Muconic acid* N-Acetyl-S-(phenyl-2-hydroxyethyl)-L-cysteine* N-Acetyl-S-(n-propyl)-L-cysteine* N-Acetyl-S-(trichlorovinyl)-L-cysteine* 2-Aminothiazoline-4-carboxylic acid* Mandelic acid* 2-Methylhippuric acid* 3- and 4-Methylhippuric acid* Phenylglyoxylic acid* 2-Thioxothiazolidine-4-carboxylic acid*