

**Metabolites Measured by NHANES
Look-up Table**

Metabolite	Parent of metabolite (where applicable)
Phthalates	
Mono-methyl phthalate	Dimethyl phthalate
Mono-ethyl phthalate	Diethyl phthalate
Mono-n-butyl phthalates	Dibutyl phthalate
Mono-isobutyl phthalate	Dibutyl phthalate
Mono-benzyl phthalate	Benzylbutyl phthalate
Mono-cyclohexyl phthalate	Dicyclohexyl phthalate
Mono-2-ethylhexyl phthalate	Di-2-ethylhexyl phthalate
Mono-(2-ethyl-5-oxohexyl) phthalate	Di-2-ethylhexyl phthalate
Mono-(2-ethyl-5-hydroxyhexyl) phthalate	Di-2-ethylhexyl phthalate
Mono-n-octyl phthalate	Di-n-octyl phthalate
Mono-(3-carboxypropyl) phthalate	Di-n-octyl phthalate
Mono-isononyl phthalate	Di-isononyl phthalate
Mono-(2-ethyl-5-carboxypentyl) phthalate	Di-2-ethylhexyl phthalate
Polycyclic Aromatic Hydrocarbons	
1-Hydroxybenz[a]anthracene	Benz[a]anthracene
3-Hydroxybenz[a]anthracene	Benz[a]anthracene
9-Hydroxybenz[a]anthracene	Benz[a]anthracene
1-Hydroxybenzo[c]phenanthrene	Benzo[c]phenanthrene
2-Hydroxybenzo[c]phenanthrene	Benzo[c]phenanthrene
3-Hydroxybenzo[c]phenanthrene	Benzo[c]phenanthrene
1-Hydroxychrysene	Chrysene
2-Hydroxychrysene	Chrysene
3-Hydroxychrysene	Chrysene
4-Hydroxychrysene	Chrysene
6-Hydroxychrysene	Chrysene
3-Hydroxyfluoranthene	Fluoranthene
2-Hydroxyfluorene	Fluorene
3-Hydroxyfluorene	Fluorene
9-Hydroxyfluorene	Fluorene
1-Hydroxyphenanthrene	Phenanthrene
2-Hydroxyphenanthrene	Phenanthrene
3-Hydroxyphenanthrene	Phenanthrene
4-Hydroxyphenanthrene	Phenanthrene
9-Hydroxyphenanthrene	Phenanthrene
1-Hydroxypyrene	Pyrene
3-Hydroxybenzo[a]pyrene	Benzo[a]pyrene
1-Hydroxynapthalene	Napthalene
2-Hydroxynapthalene	Napthalene

Organochlorine Pesticides

Oxychlordane
Heptachlor epoxide
Monohydroxy methoxychlor
Dihydroxy methoxychlor
Endosulfan-ether
Endosulfan-lactone
Endosulfan-sulfate

Chlordane
Heptachlor
Methoxychlor
Methoxychlor
Endosulfan
Endosulfan
Endosulfan

**Organophosphate Insecticides:
Specific Metabolites**

Malathion dicarboxylic acid
3,5,6-Trichloro-2-pyridinol
2-Isopropyl-4-methyl-6-hydroxypyrimidine
para-Nitrophenol
2-(Diethylamino)-6-methylpyrimidin-4-ol/one
3-Chloro-7-hydroxy-4-methyl-2H-chromen-2-one/ol
5-Chloro-1,2-dihydro-1-isopropyl-[3H]-1,2,4-triazol-3-one
Acephate
Methamidaphos

Malathion
Chlorpyrifos, Chlorpyrifos methyl

Diazinon
Parathion, Methyl Parathion

Pirimiphos methyl

Coumaphos

Isazophos methyl
Acephate
Acephate, Methimidaphos

Pyrethroid Pesticides

cis/trans-3-(2,2-Dichlorovinyl)-2,2-dimethylcyclopropane carboxylic acid

3-Phenoxybenzoic acid
4-Fluoro-3-phenoxybenzoic acid
cis/trans-Dimethylvinylcyclopropane carboxylic diacid
cis-3-(2,2-Dibromovinyl)-2,2-dimethylcyclopropane carboxylic acid

Permethrin, Cyfluthrin, Cypermethrin
Cypermethrin, Deltamethrin, Permethrin, possibly other pyrethroids
Cyfluthrin
multiple pyrethroids including: Allethrin, Resmethrin, natural Pyrethrin 1.

Deltamethrin

Other Pesticides

2,5-Dichlorophenol

p-Dichlorobenzene

Carbamate Pesticides

2-Isopropoxyphenol

Propoxur
Carbofuran, Benfuracarb, Carbosulfan, Furathiocarb

Carbofuranphenol

Fungicides

Ethylenethio urea (ETU)
Propylenethio urea (PTU)
Phthalimide
Tetrahydrophthalimide

Non-specific metabolite of ethylene bisdithiocarbamates (CA registered: Maneb, Mancozeb, Metiram, Nabam, Thiram, Ziram)
Propineb
Captan, Folpet
Captan, Captafol

Herbicides: Substituted Ureas

Dimethoxy pyrimidine

Dimethyl pyrimidine

Methyl methoxytriazine

Halosulfuron

Iodosulfuron

Nonspecific metabolite of sulfonylurea herbicides

Nonspecific metabolite of sulfonylurea herbicides

Nonspecific metabolite of sulfonylurea herbicides

Halosulfuron-methyl

Iodosulfuron-methyl (sodium)

Other Herbicides

2,4,5-Trichlorophenoxyacetic acid

2,4-Dichlorophenol

Acetochlor mercapturate

Alachlor mercapturate

Atrazine mercapturate

Diaminochlorotriazine

Desethylatrazine

Desisopropylatrazine

Hydroxyatrazine

Metolachlor mercapturate

2,4-Dichlorophenoxyacetic acid

Acetochlor

Alachlor

Atrazine

Atrazine

Atrazine

Atrazine

Atrazine

Metolachlor

Perfluorinated Compounds2-(N-Ethyl-perfluorooctane sulfonamido)
acetic acid

N-Ethyl-perfluorooctane sulfonamide

2-(N-Methyl-perfluorooctane
sulfonamido) acetic acid

N-Methyl-perfluorooctane sulfonamide

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