

# CHEMICALS COMMONLY FOUND IN NATURAL SOILS VS RECYCLED RUBBER

## NATURAL SOIL



**Benzene | Benzo(a)anthracene | Benzo(a)pyrene | Benzo(b)fluoranthene | Benzo(g, h, i)perylene | Benzo(k)fluoranthene | Benzylbutylphthalate | Bis(2-ethylhexyl)phthalate | Ethylbenzene | Fluoranthene | Naphthalene | Pyrene | Toluene | M-Xylene | O-Xylene | P-Xylene**

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UNIQUE

Acetic acid | Alkanes | N-Alkanoic acids | N-Alkanols | Alkyl phthalates | Aminoacetic acid | 2-amino-1,4-butanedioic acid | 4-aminobutanoic acid | 2-amino-3-hydroxybutanoic acid | 2-amino-3-hydroxypropanoic acid | 2-amino-4(or 5)-imidazole-propanoic acid | 2-amino-3-methylbutanoic acid | 2-amino 3 methylpentanoic acid | 2-amino-4-methylpentanoic acid | 2-amino-4-(methylthio)butanoic acid | 2-aminopentanedioic acid | 2-amino-3-phenylpropanoic acid | 2-aminopropanoic acid | 3-aminopropanoic acid | Aromatic acids | Benzoic acid | Butanoic acid | N-Butanol | Carotene | Chrysene 2,6-diaminohexanoic acid | Dibutyl phthalate | Dicyclohexylphthalate | Diisoamylphthalate | 4,5-dimethoxy-1,2-benzene dicarboxylic acid dimethyl ester 3,5-dimethoxy-4-hydroxybenzoic acid | Diocetylphthalate | Docosanoic acid | Dodecanoic acid | Eicosanoic acid | Ethanol | 8-ethoxydecanoic acid | Formic acid | Heptadecanoate | Hexadecanoic acid | 9-hexadecnoic acid | Hexanoic acid | Hydroxy acids | 4-hydroxybenzaldehyde | 2-hydroxybenzoic acid | 4-hydroxybenzoic acid | Hydroxydecanoic acid | 8-hydroxydecanoic acid | 4-hydroxy-3-methoxybenzoic acid | 3-(4-hydroxy-3-methoxyphenyl)propenoic acid | 3-hydroxy-5-methylbenzoic acid | 8-hydroxynonanoic acid | 3-hydroxyoctanoic acid | 8-hydroxyoctanoic acid | 3-(4-hydroxyphenyl)-2-aminopropanoic acid | 3-(4-hydroxyphenyl)propenoic acid | Ideno(1,2,3-cd)pyrene | Inositols | Methanol 2-methoxy-1,3,4,5-benzene-tetracarboxylic acid tetramethyl ester | 4-methoxy-1,2,3-benzene-tricarboxylic acid trimethyl ester | 4-methoxybenzoic acid | 3-methoxy-4-hydroxybenzaldehyde | 2-methoxy-1,4-naphthoquinone | Methyl alkanones | 4-methylbutanoic acid | 20-methylheneicosanoic acid | 16-methylheptadecanoic acid | 18-methylnonadecanoic acid | 3-methylpropanoic acid | 22-methyltricosanoic acid | Nonadecanoate | Octadecanoic acid | Cis-9-octadecenoic acid | Octadecyl(4-propionylphenyl)ester | Pentadecanoic acid | Pentanoic acid | Phenolic acids | Polysaccharides | Propanoic acid | N-Propanol | Sterols | Tetracosanoic acid | Tetradecanoic acid | Uronic acids

## RECYCLED RUBBER



**Benzene | Benzo(a)anthracene | Benzo(a)pyrene | Benzo(b)fluoranthene | Benzo(g, h, i)perylene | Benzo(k)fluoranthene | Benzylbutylphthalate | Bis(2-ethylhexyl)phthalate | Ethylbenzene | Fluoranthene | Naphthalene | Pyrene | Toluene | Xylenes**

**78**  
UNIQUE

1,2,4-Trichlorobenzene | 1,2,4-Trimethylbenzene | 1,3,5-Trichlorobenzene | 1,3,5-Trimethylbenzene | 1,4-Dichlorobenzene | 1-Bromonaphthalene | 1-methylnaphthalene | 2-(4-morpholino)benzothiazole | 2-hydroxybenzothiazole | 2-Methylnaphthalene | 4-methyl-2-pentanone | 4-t-octylphenol | Acenaphthene | Acenaphthylene | Acetone | Aluminum | Anthracene | Antimony | Arsenic | Barium | Benzothiazole | Beryllium | Bis(2-chloroethyl)ether | Boron | Butylbenzyl phthalate | Cadmium | Calcium | Carbon Disulfide | Chloroform | Chromium | Chrysene | Cobalt | Copper | Di-n-butylphthalate | Dibenz(a,h)anthracene | Diethyl phthalate | Di-ethylhexyl phthalate | Di-isononyl phthalate | Fluorene | Formaldehyde | Indeno(1,2,3-cd)pyrene | Iron | Iso-nonylphenol | Lead | Magnesium | Manganese | Mercury | Methylene Chloride | Molybdenum | N-Nitrosodiphenylamine | Nickel | PAH(16) | PCB 101 | PCB 118 | PCB 138 | PCB 153 | PCB 180 | PCB 28 | PCB 52 | PCB(7) | Phenanthrene | Phenol | Phosphorus | Potassium | P-Xylene | Selenium | Silver | Sodium | Strontium | Styrene | Sulfur | Tetrachloroethene | Thallium | Tin | Titanium | Triphenylene | Vanadium | Zinc

**14**  
SAME

THIS FIGURE IS INTENDED TO CONVEY THE COMPLEX CHEMICAL MIXTURES THAT MAKE UP BOTH NATURAL SOIL AND RECYCLED RUBBER. MANY OF THE SAME CHEMICALS OCCUR IN BOTH (HIGHLIGHTED IN RED). THE MERE PRESENCE OF A CHEMICAL IS NOT INDICATIVE OF RISK. CHEMICAL CONCENTRATIONS, EXPOSURE MEASUREMENTS, AND RISK ASSESSMENT MUST BE USED BEFORE ASSUMING THAT THE PRESENCE OF A CHEMICAL MIGHT RESULT IN AN ADVERSE HEALTH EFFECT.