Table A. Whole Gasoline Vapor and Headspace Gasoline Vapor Emissions Profiles

| Compound | 1995 Southern California Market-Share Gasoline (Wt %) | |
|---|---|---|
| | Whole Gasoline | Headspace Gasoline |
| n-Alkanes | | |
| Propane | 0.01 | 0.2 |
| n-Butane | 0.79 | 6.2 |
| n-Pentane | 2.19 | 4.1 |
| n-Hexane | 1.41 | 0.3 |
| n-Heptane | 1.01 | 0.3 |
| n-Octane | 0.46 | 0.2 |
| n-Nonane | 0.24 | 0.1 |
| n-Decane | 0.12 | 0.0 |
| Branched alkanes | | |
| i-Butane | 0.15 | 1.7 |
| 2,2-Dimethylpropane | 0.01 | 0.1 |
| i-Pentane | 6.12 | 16.9 |
| 2,2-Dimethylbutane | 0.22 | 0.2 |
| 2,3-Dimethylbutane | 0.98 | 1.0 |
| 2-Methylpentane | 3.01 | 1.3 |
| 3-Methylpentane | 1.86 | 0.7 |
| 2,4-Dimethylpentane | 0.90 | 0.3 |
| 2-Methylhexane | 1.44 | 0.5 |
| 2,3-Dimethylpentane | 1.73 | 0.5 |
| 3-Methylhexane | 1.44 | 0.4 |
| 2,2,4-Trimethylpentane | 2.55 | 0.8 |
| 2,5-Dimethylhexane | 0.50 | 0.2 |
| 2,4-Dimethylhexane | 0.52 | 0.2 |
| 2,3,4-Trimethylpentane | 1.18 | 0.4 |
| 2,3-Dimethylhexane | 0.14 | 0.0 |
| 2-Methylheptane | 0.75 | 0.2 |
| n-Alkenes | | |
| 1-Butene | 0.02 | 0.2 |
| *trans*-2-Butene | 0.08 | 0.6 |
| *cis*-2-Butene | 0.08 | 0.5 |
| 1-Pentene | 0.22 | 0.6 |
| *trans*-2-Pentene | 0.51 | 0.9 |

Table A. (continued - page 2)

| Compound | 1995 Southern California Market-Share Gasoline (Wt %) | |
|---|---|---|
| | Whole Gasoline | Headspace Gasoline |
| n-Alkenes | | |
| *cis*-2-Pentene | 0.27 | 0.5 |
| 1-Hexene | 0.12 | 0.1 |
| *trans*-2-Hexene | 0.24 | 0.1 |
| *cis*-2-Hexene | 0.16 | 0.1 |
| Branched alkenes | | |
| Isobutene | 0.02 | 0.2 |
| 3-Methyl-1-butene | 0.05 | 0.2 |
| 2-Methyl-1-butene | 0.25 | 0.5 |
| 2-Methyl-2-butene | 0.25 | 0.4 |
| 4-Methyl-1-pentene | 0.15 | 0.2 |
| 2-Methyl-1-pentene | 0.15 | 0.1 |
| 2-Methyl-2-pentene | 0.33 | 0.4 |
| Saturated cycloalkanes | | |
| Cyclopentane | 0.34 | 0.3 |
| Methylcyclopentane | 2.46 | 0.7 |
| Cyclohexane | 0.75 | 0.5 |
| Methylcyclohexane | 1.14 | 0.3 |
| Unsaturated cycloalkenes | | |
| Cyclopentene | 0.13 | 0.2 |
| Aromatic hydrocarbons | | |
| Benzene | 0.84 | 0.7 |
| Toluene | 6.67 | 1.9 |
| Ethylbenzene | 1.46 | 0.7 |
| m & p-Xylene | 6.17 | 2.4 |
| o-Xylene | 2.29 | 1.3 |
| i-Propylbenzene | 0.10 | 0.1 |
| n-Propylbenzene | 0.54 | 0.4 |
| p-Ethyltoluene | 0.73 | 0.6 |
| m-Ethyltoluene | 1.67 | 1.3 |
| 1,3,5-Trimethylbenzene | 0.84 | 0.7 |
| o-Ethyltoluene | 0.58 | 0.4 |
| 1,2,4-Trimethylbenzene | 2.90 | 2.7 |
| Ethers | | |
| MTBE | 10.57 | * |

Notes: * Not Calculated

Table B. Emissions Profiles for Paved Road Dust Fine Particulate Mass

| Compound | Fresno* $\mu g\ g^{-1}$ | Bakersfield* $\mu g\ g^{-1}$ | Kern Wildlife Refuge* $\mu g\ g^{-1}$ |
|---|---|---|---|
| n-Alkanes | | | |
| n-Tricosane | 18.6 | 18.6 | 18.6 |
| n-Tetracosane | 18.9 | 18.9 | 18.9 |
| n-Pentacosane | 22.0 | 22.0 | 22.0 |
| n-Hexacosane | 23.7 | 23.7 | 23.7 |
| n-Heptacosane | 28.5 | 28.5 | 28.5 |
| n-Octacosane | 18.9 | 18.9 | 18.9 |
| n-Nonacosane | 54.6 | 54.6 | 54.6 |
| n-Triacontane | 15.4 | 15.4 | 15.4 |
| n-Hentriacontane | 16.7 | 16.7 | 16.7 |
| n-Dotriacontane | 6.28 | 6.28 | 6.28 |
| n-Tritriacontane | 6.03 | 6.03 | 6.03 |
| Polycyclic aromatic hydrocarbons | | | |
| Fluoranthene | 3.05 | 3.05 | 3.05 |
| n-Alkanoic acids | | | |
| n-Dodecanoic acid | 91.5 | 91.5 | 91.5 |
| n-Tridecanoic acid | 16.2 | 16.2 | 16.2 |
| n-Tetradecanoic acid | 236 | 236 | 236 |
| n-Pentadecanoic acid | 135 | 135 | 135 |
| n-Hexadecanoic acid | 1180 | 1180 | 1180 |
| n-Heptadecanoic acid | 50.1 | 50.1 | 50.1 |
| n-Octadecanoic acid | 516 | 516 | 516 |
| n-Nonadecanoic acid | 24.7 | 24.7 | 24.7 |
| n-Eicosanoic acid | 17.7 | 17.7 | 17.7 |
| n-Heneicosanoic acid | 6.85 | 6.85 | 6.85 |
| n-Docosanoic acid | 35.4 | 35.4 | 35.4 |
| n-Tricosanoic acid | 15.9 | 15.9 | 15.9 |
| n-Alkenoic acids | | | |
| n-9-Hexadecenoic acid | 297 | 297 | 297 |
| n-9-Octadecenoic acid | 450 | 450 | 450 |
| n-9,12-Octadecadienoic acid | 198 | 198 | 198 |
| Resin acids | | | |
| Dehydroabietic acid | 44.7 | 44.7 | 44.7 |
| Other compounds | | | |
| Squalene | 178 | 178 | 178 |
| Elemental composition | | | |
| Aluminum | 21100 | 41700 | 42900 |
| Silicon | 61500 | 125000 | 118000 |
| Organic carbon | 99000 | 149000 | 129000 |
| Elemental Carbon | 4000 | 10000 | 15000 |

Notes: * Paved road dust samples were composited for organic compound analysis due to limited fine particle mass. Inorganic species were analyzed separately in each road dust sample.