**Carbon Dioxide Emissions Coefficients**

 **Release Date:** February 14, 2013

| Carbon Dioxide Emissions Coefficients by Fuel |
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|  | **Pounds CO2** | **Kilograms CO2** | **Pounds CO2** | **Kilograms CO2** |
| **Carbon Dioxide (CO2) Factors:** | **Per Unit of Volume or Mass** | **Per Unit of Volume or Mass** | **Per Million Btu** | **Per Million Btu** |
| For homes and businesses |
| Propane | 12.7/gallon | 5.8/gallon | 139.0 | 63.1 |
| Butane | 14.8/gallon | 6.7/gallon | 143.2 | 65.0 |
| Butane/Propane Mix | 13.7/gallon | 6.2/gallon | 141.1 | 64.0 |
| Home Heating and Diesel Fuel | 22.4/gallon | 10.2/gallon | 161.3 | 73.2 |
| Kerosene | 21.5/gallon | 9.8/gallon | 159.4 | 72.3 |
| Coal (All types) | 4,631.5/short ton | 2,100.8/short ton | 210.2 | 95.3 |
| Natural Gas | 117.1/thousand cubic feet | 53.1/thousand cubic feet | 117.0 | 53.1 |
| Gasoline | 19.6/gallon | 8.9/gallon | 157.2 | 71.3 |
| Residual Heating Fuel (Businesses only) | 26/gallon | 11.8/gallon | 173.7 | 78.8 |
| Other transportation fuels |
| Jet Fuel | 21.1/gallon | 9.6/gallon | 156.3 | 70.9 |
| Aviation Gas | 18.4/gallon | 8.3/gallon | 152.6 | 69.2 |
| Industrial fuels and others not listed above |
| Flared natural gas | 120.7/thousand cubic feet | 54.7/thousand cubic feet | 120.6 | 54.7 |
| Petroleum coke | 32.4/gallon | 14.7/gallon | 225.1 | 102.1 |
| Other petroleum & miscellaneous | 22.1/gallon | 10.0/gallon | 160.1 | 72.6 |
| Nonfuel uses |
| Asphalt and Road Oil | 26.3/gallon | 11.9/gallon | 166.7 | 75.6 |
| Lubricants | 23.6/gallon | 10.7/gallon | 163.6 | 74.2 |
| Petrochemical Feedstocks | 24.7/gallon | 11.2/gallon | 156.6 | 71.0 |
| Special Naphthas (solvents) | 20.1/gallon | 9.1/gallon | 160.5 | 72.8 |
| Waxes | 21.1/gallon | 9.6/gallon | 160.1 | 72.6 |
| Coal by type |
| Anthractie | 5,685.0/short ton | 2,578.7/short ton | 228.6 | 103.7 |
| Bituminous | 4,931.3/short ton | 2,236.8/short ton | 205.7 | 93.3 |
| Subbituminous | 3,715.9/short ton | 1,685.5/short ton | 214.3 | 97.2 |
| Lignite | 2,791.6/short ton | 1,266.2/short ton | 215.4 | 97.7 |
| Coke | 6,239.7/short ton | 2,830.3/short ton | 251.6 | 114.1 |
| Source: U.S. Energy Information Administration estimates.Note: To convert to carbon equivalents multiply by 12/44. Coefficients can vary slightly, depending upon estimation method. |