

CO2 EMISSIONS FROM FUEL COMBUSTION

Devin Serpa - AfterOil EV

Chemical Formula % mixture	lbs per gal	% Carbon by weight	lbs C per gal	0.99	(44/12)	lbs CO2 per gal	% Carbon Neutral
Diesel No. 2 C ₁₂ H ₂₃	7.079 ¹	87.00% ¹	6.1587	0.99	3.6667	22.3562	0.00%
Biodiesel C ₁₂ H ₂₃	7.328 ¹	77.00% ¹	5.6426	0.99	3.6667	20.4825	100.00%
Crude Oil	6.500 ²	85.00% ³	5.5250	0.99	3.6667	20.0558	0.00%
Gasoline 87 C ₈ H ₁₈	6.250 ¹	86.50%	5.4063	0.99	3.6667	19.6249	0.00%
CA Gas (E5.7) Gasoline - 94.3% C ₂ H ₅ OH - 5.7%	6.271	84.54%	5.3011	0.99	3.6667	19.2430	1.51%
Gasohol (E10) Gasoline - 90% C ₂ H ₅ OH - 10%	6.286	83.07%	5.2218	0.99	3.6667	18.9551	2.75%
Flex Fuel (E85) Gasoline - 15% C ₂ H ₅ OH - 85%	6.556	57.32%	3.7579	0.99	3.6667	13.6412	59.02%
Ethanol (E100) C ₂ H ₅ OH - 100%	6.610 ¹	52.17%	3.4484	0.99	3.6667	12.5177	100.00%
CNG CH ₄ - 90% C ₂ H ₆ - 10%	1.070 ¹	75.50%	0.8079	0.99	3.6667	2.9327	0.00%

1 <http://www.eere.energy.gov/afdc/pdfs/fueltable.pdf>

2 <http://www.eppo.go.th/ref/UNIT-OIL.html>

3 <http://cdiac.ornl.gov/pns/convert.html>

(44/12) Carbon Ratio <http://www.fueleconomy.gov/feg/co2.shtml>

0.99 Oxidation Factor <http://epa.gov/otaq/climate/420f05001.htm>

REV 1.1 08-28-2008

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