

7.3 Emission Factors for Common Fuels and Transportation Fuels*

Fuel	Use	CO ₂	CH ₄	N ₂ O
		g/l fuel	g/l fuel	g/l fuel
Heavy (Residual) Oil	Utility Boiler	3090	0.03	0.013
	Industrial Boiler	3090	0.12	0.013
	Commercial/Other Boiler	3090	0.06	0.013
	Ships	3090	0.3	0.08
Light (Distillate) Oil	Utility Boiler	2830	0.006	0.013
	Industrial Boiler	2830	0.006	0.013
	Commercial/Other Boiler	2830	0.026	0.013
	Jet/Turbo Aviation	2550	0.08	0.25
Diesel	Ships	2830	0.3	0.07
	Stationary Prime Mover	2730	0.26	0.4
	Car	2730	0.05	0.1
	Light Truck	2730	0.07	0.1
	Heavy Duty Vehicle	2730	0.12	0.1
	Railroad Trains	2730	0.15	1.1
Fuel	Ships	2730	0.15	1
	Use	CO ₂	CH ₄	N ₂ O
		g/l fuel	g/l fuel	g/l fuel
Gasoline	Car	2360	0.25	0.21

Fuel	Use	CO ₂	CH ₄	N ₂ O
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Propane	Light Truck	2360	0.19	0.39
	Heavy Duty Vehicle	2360	0.17	1
	Off-Road Vehicles	2360	3	0.06
	Aviation	2330	2.19	0.23
	Boats	2360	1.3	0.06
	Heater	1530	0.03	
	Vehicle	1530	0.7	0.09
Butane	Heater	1760	0.03	
		g/m3 fuel	g/m3 fuel	g/m3 fuel
Natural Gas	Utility Boiler	1880	0.0048	0.02
	Industrial Boiler	1880	0.048	0.02
	Commercial Boiler	1880	0.043	0.02

		g/l fuel	g/l fuel	g/l fuel
Natural Gas	Natural Gas Vehicles	2	0.022	0.00006
		g/l fuel		
Naptha	Non-Energy Uses	625		
		g/kg fuel ¹	g/kg fuel	g/kg fuel
Coal	Utility Boiler		0.015	0.05
	Fluidized Boiler		0.015	2.11
	Industrial Boiler		0.015	0.11
	Commercial Boiler		0.015	0.11
		g/l fuel	g/l fuel	g/l fuel
Petroleum Coke, Liquid Derived	Energy, Coking applications	4200	0.12	
Petroleum Coke from Catalytic	Energy, Coking applications	3800		
Cracker				
		g/kg fuel	g/kg fuel	g/kg fuel
anthracite		2390	0.015	0.05-2.11
U.S. Bituminous		2460-2500	0.015	0.05-2.11
Canadian Bituminous		1700-2520	0.015	0.05-2.11
Fuel	Use	CO₂	CH₄	N₂O

		g/l fuel	g/l fuel	g/l fuel
Sub-Bituminous		1740	0.015	0.05-2.11
Lignite		1340-1520	0.015	0.05-2.11
Coke		2480	0.015	0.05-2.11
		g/kg (oven dry fuel)	g/kg	g/kg
Wood Fuel/Wood Waste**	Industrial Combustion	1500	0.15	0.16
		kg/kg explosives		
ANFO Explosives		0.189		

Use carbon content of coal type to determine CO2 emissions. (Source: Canada's Climate Change Voluntary Challenge and Registry Inc., VCR Registration Guide 1999.)

*Source unless otherwise specified: Government of Canada. Canada's Greenhouse Gas Inventory, 1997 Emissions and Removal with Trends, F. Neitzert, K. Olsen and P. Collas. Pollution Data Branch, Air Pollution Prevention Directorate, Environment Canada, 1999, Appendix C.

**Source: Canadian Pulp and Paper Association, 1999 Greenhouse Gas Action Plan Guidelines, July 1999, p.34.