

Default Heat Content for Energy Conversions

Fuel Name	Default Heat Content Ratio	Units of Measure	Source
Anthracite	25.09	Million BTU/Short Ton	GHGRP
Anthracite Culm	11.513	Million BTU/Short Ton	EIA A5
Bagasse At 50% moisture	4000	BTU/Pound	AP42 AA
Bark At 50% moisture	4,500	BTU/Pound	AP42 AA
Bituminous Coal	24.93	Million BTU/Short Ton	GHGRP
Bituminous/Subbituminous Coal	17.25	Million BTU/Short Ton	GHGRP
Butane	0.103	Million BTU/Gallon	GHGRP
Coal	19.292	Million BTU/Short Ton	EIA A5
Coal Mixed (Commercial sector)	21.39	Million BTU/Short Ton	GHGRP
Coal Mixed (Industrial coking)	26.28	Million BTU/Short Ton	GHGRP
Coal Mixed (Industrial sector)	22.35	Million BTU/Short Ton	GHGRP
Coal Mixed (Electric Power sector)	19.73	Million BTU/Short Ton	GHGRP
Coke	24.8	Million BTU/Short Ton	EIA A5
Coke Mixed (Commercial sector)	21.39	Million BTU/Short Ton	GHGRP
Coke Mixed (Industrial coking)	26.28	Million BTU/Short Ton	GHGRP
Coke Mixed (Industrial sector)	22.35	Million BTU/Short Ton	GHGRP
Coke Mixed (Electric Power sector)	19.73	Million BTU/Short Ton	GHGRP
Coke Petroleum Coke	30	Million BTU/Short Ton	GHGRP
Coke Oven Gas	590	BTU/Standard Cubic Feet	AP42 AA
Digester Gas	0.619	Million Btu/Thousand Standard Cubic Feet	EIA RNW
Distillate Oil Average	5.771	Million BTU/Short Ton	EIA A3
Distillate Oil 15ppm sulfur and under	5.7	Million BTU/Barrel	EIA A1
Distillate Oil > 15 ppm to 500 ppm sulfur	5.817	Million BTU/Barrel	EIA A1
Distillate Oil >500 ppm sulfur	5.825	Million BTU/Barrel	EIA A1
Distillate Oil Diesel	137381	Btu/Gallon	EIA CC
Distillate Oil No. 1	0.139	Million BTU/Gallon	GHGRP

Fuel Name	Default Heat Content Ratio	Units of Measure	Source
Distillate Oil No. 2	0.138	Million BTU/Gallon	GHGRP
Distillate Oil No. 4	0.146	Million BTU/Gallon	GHGRP
Gas Blast Furnace Gas	0.092×10^{-3}	Million BTU/Standard Cubic Feet	GHGRP
Gas Coke Oven Gas	0.599×10^{-3}	Million BTU/Standard Cubic Feet	GHGRP
Gas Fuel Gas 4	1.388×10^{-3}	Million BTU/Standard Cubic Feet	GHGRP
Gas Other Biomass Gases	0.655×10^{-3}	Million BTU/Standard Cubic Feet	GHGRP
Gasoline	5.222	Million BTU/Barrel	EIA A1
Gasoline Natural Gasoline	0.11	Million BTU/Gallon	GHGRP
Gasoline Motor Gasoline	0.125	Million BTU/Gallon	GHGRP
Gasoline Aviation Gasoline	0.12	Million BTU/Gallon	GHGRP
Kerosene-Type Jet Fuel	0.135	Million BTU/Gallon	GHGRP
Kerosene-Type Jet Fuel	5.67	Million BTU/Barrel	EIA A1
Special Naphtha	0.125	Million BTU/Gallon	GHGRP
Naphtha Type Jet Fuel	5.355	Million BTU/Gallon	EIA A1
Kerosene	0.135	Million BTU/Gallon	GHGRP
Landfill Gas	0.485×10^{-3}	Million BTU/Standard Cubic Feet	GHGRP
Lignite	14.21	Million BTU/Short Ton	GHGRP
Liquid Waste Rendered Animal Fat	0.125	Million BTU/Gallon	GHGRP
Liquid Waste Vegetable Oil	0.12	Million BTU/Gallon	GHGRP
Liquid Waste Ethanol	0.084	Million BTU/Gallon	GHGRP
Liquid Waste Biodiesel (100%)	0.128	Million BTU/Gallon	GHGRP
Liquid Waste Black Liquor	11.758	Million Btu/Short Ton	EIA RNW
Liquid Waste Waste Alcohol	3.8	Million Btu/Barrel	EIA RNW
Liquified Petroleum Gas (LPG)	0.092	Million BTU/Gallon	GHGRP
Natural Gas (Weighted U.S. Average)	1.026×10^{-3}	Million BTU/Standard Cubic Feet	GHGRP
Natural Gas Methane	0.841	Million Btu/Thousand Standard Cubic Feet	EIA RNW
Propane Gas	2.516×10^{-3}	Million BTU/Standard Cubic Feet	GHGRP
Natural Gas Liquids Ethane 1	0.068	Million BTU/Gallon	GHGRP

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Natural Gas Liquids Isobutane 1	0.099	Million BTU/Gallon	GHGRP
Natural Gas Liquids Natural Gasoline	0.11	Million BTU/Gallon	
Oil Used Oil	0.138	Million BTU/Gallon	GHGRP
Oil Unfinished Oils	0.139	Million BTU/Gallon	GHGRP
Oil Heavy Gas Oils	0.148	Million BTU/Gallon	GHGRP
Oil Lubricants	0.144	Million BTU/Gallon	GHGRP
Oil Asphalt and Road Oil	0.158	Million BTU/Gallon	GHGRP
Petroleum Liquid Other Oil (>401 deg F)	0.139	Million BTU/Gallon	GHGRP
Petroleum Liquid Pentanes Plus	0.11	Million BTU/Gallon	GHGRP
Petroleum Liquid Petrochemical Feedstocks	0.125	Million BTU/Gallon	GHGRP
Petroleum Liquid Butylene 1	0.105	Million BTU/Gallon	GHGRP
Petroleum Liquid Ethylene 2	0.058	Million BTU/Gallon	GHGRP
Petroleum Liquid Isobutylene 1	0.103	Million BTU/Gallon	GHGRP
Petroleum Liquid Still Gas	0.143	Million BTU/Gallon	GHGRP
Naphtha (<401 deg F)	0.125	Million BTU/Gallon	GHGRP
Propylene	0.091	Million BTU/Gallon	GHGRP
Blast Furnace Gas	0.092×10^{-3}	Million BTU/Standard Cubic Feet	GHGRP
Process Gas	0.599×10^{-3}	Million BTU/Standard Cubic Feet	GHGRP
Landfill Gas	0.485×10^{-3}	Million BTU/Standard Cubic Feet	GHGRP
Methane	0.841	Million Btu/Thousand Cubic Feet	EIA RNW
Propane	0.091	Million BTU/Gallon	GHGRP
Residual Oil No. 5	0.14	Million BTU/Gallon	GHGRP
Residual Oil No. 6	0.15	Million BTU/Gallon	GHGRP
Sludge Waste	7.512	Million BTU/Short Ton	EIA RNW
Sludge Wood	10.071	Million Btu/Short Ton	EIA RNW
Solid Waste Municipal Solid Waste	9.95 3	Million BTU/Short Ton	GHGRP
Solid Waste Agricultural Byproducts	8.25	Million BTU/Short Ton	GHGRP
Solid Waste Peat	8	Million BTU/Short Ton	GHGRP

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Solid Waste Solid Byproducts	10.39	Million BTU/Short Ton	GHGRP
Solid Waste Tires	28	Million BTU/Short Ton	GHGRP
Solid Waste Plastics	38	Million BTU/Short Ton	GHGRP
Solid Waste Agricultural Byproducts	8.248	Million Btu/Short Ton	EIA RNW
Solid Waste MSW Biogenic	9.696	Million Btu/Short Ton	EIA RNW
Solid Waste Paper Pellets	13.029	Million Btu/Short Ton	EIA RNW
Solid Waste Railroad Ties	12.618	Million Btu/Short Ton	EIA RNW
Solid Waste Solid Byproducts	25.83	Million Btu/Short Ton	EIA RNW
Solid Waste Spent Sulfite Liquor	12.72	Million Btu/Short Ton	EIA RNW
Solid Waste Utility Poles	12.5	Million Btu/Short Ton	EIA RNW
Subbituminous	17.25	Million BTU/Short Ton	GHGRP
Wood and Wood Residuals (dry basis)	17.48	Million BTU/Short Ton	GHGRP
Crude Oil Crude Oil	0.138	Million BTU/Gallon	GHGRP

Last updated 3/4/2021.

Energy Conversion Sources:

- EIA CC: <https://www.eia.gov/energyexplained/units-and-calculators/energy-conversion-calculators.php>
- EIA A1-A5: <https://www.eia.gov/totalenergy/data/monthly/#appendices>
- EIA RNW: https://www.eia.gov/renewable/annual/trends/pdf/table1_10.pdf
- GHGRP: Table C-1 to Subpart C of part 98'; <https://www.epa.gov/sites/production/files/2015-06/documents/ghg-mrr-finalrule.pdf>
- AP42 AA: <https://www3.epa.gov/ttnchie1/ap42/appendix/appa.pdf>