

Common Unit Conversions

Energy

1 mmBTU = 1,000,000 BTUs
1,000,000 watts or watt hours = 1 Mwh = 1,000 kWh
1 therm = 0.1 decatherm = 100,000 BTUs
1 kWh = 3,412 BTUs = .003412 MMBtus
1 CCF (100 cubic feet) = 100,000 BTUs = 29.3 kWh
One gallon of #2 Fuel Oil = 138,500 BTUs¹
One gallon of gasoline = 120,286 BTUs²

Volume

100 ounces = 0.8 gallons
1 quart = 2 pints = 0.25 gallons
1 liter = 1,000 milliliters = 0.264 gallons

Mass

100 grams = 100,000 milligrams = 0.224 lbs
10 ounces = 0.625 lbs
1 long tons/metric tons = 1.1 tons (short tons)
1 short ton = 2,000 lbs

Area

1 square mile = 640 acres
1 square yard = 9 square feet

Other Conversions

Average passenger car = 5,900 BTUs per mile = 0.0026 lbs of VOCs per mile
A typical 40" x 48" wooden pallet = 40 lbs
One gallon of water = 8.35 lbs
One gallon of medium fuel oil = 8 lbs
One gallon of paint or coatings = 8.5 lbs
One gallon of PERC = 13.47 lbs
One ream of paper = 500 sheets: Letter sized paper has a basis size of 17" x 22" and is cut into 4 pages per sheet. Thus, to determine weight for a pack of letter sized paper, divide the "gsm or g/m²" weight by four. IEC's packs of paper with gsm 75.3 are 5 lbs per pack.
One "average" glass bottle = 0.8 ounces or 0.5 lbs
One 16 oz. or 20 oz plastic bottle = 0.05 lbs or 0.056 lbs
One cubic yard of commercial / industrial waste (loose) = 450 lbs
One cubic yard of municipal solid waste (compacted in truck) = 750 lbs
One mercury thermostat contains 3.5 grams of mercury, or 0.01 lbs of mercury.
One mercury thermometer contains 0.7 grams of mercury.

¹ For other similar conversions, see www.exothink.com/Pages/btu.html

² <http://www.eia.gov/oiaf/analysispaper/biomass.html>

Other Resources

Description	Link
Common unit conversions	http://www.onlineconversion.com/
Information on energy use, prices, and emissions by state. For emissions info, select a state and then pull up the summary report for electricity.	http://www.eia.doe.gov/emeu/states/_states.html
Air emissions data and emission factors	http://www.eia.doe.gov/oiaf/1605/techassist.html#factors
Weight estimates for many types of municipal and industrial wastes	http://www.epa.gov/epaoswer/non-hw/recycle/recmeas/docs/guide_b.pdf
Calculations for paper weight	http://www.tssphoto.com/sp/dg/weight.html