

	West Virginia Department of Health and Human Resources				
	MANUAL OF ENVIRONMENTAL HEALTH PROCEDURES				
Section	Appendix	Date	June 21, 2005	Procedure #	Appendix B
Subject	Conversion Factors for Operators			Page	1 of 4

The following factors have been extracted from "Conversion Factors for Engineers" with permission of Dorr Oliver, Inc.

<u>MULTIPLY</u>	<u>BY</u>	<u>TO OBTAIN</u>
Acres	43,560	Square feet
Acre-feet	43,560	Cubic feet
Acre-foot	325,851	Gallons
Centimeters	0.3937	Inches
Cubic feet	1728	Cubic inches
Cubic feet	7.48052	Gallons
Cubic feet	28.32	Liters
Cubic feet/second	448.831	Gallons/minute
Cubic feet/second	0.646317	Million gallons/day
Cubic yards	27	Cubic feet
Degrees (angle)	60	Minutes
Feet	30.48	Centimeters
Feet	12	Inches
Feet	0.3048	Meters
Feet	1/3	Yards
Feet of water	0.4335	Pounds/square inch
Gallons	0.1337	Cubic feet
Gallons	3.785	Liters
Gallons	8	Pints (liq.)
Gallons	4	Quarts (liq.)
Gallons, Imperial	1.20095	U.S. gallons
Gallons, U.S.	0.83267	Imperial gallons
Gallons water	8.3453	Pounds of water
Gallons/min.	2.228 x 10 ⁻³	Cubic feet/sec.

Gallons/min.	8.0208/area (sq. ft.)	Overflow rate (ft/hr)
Grains/U.S. gal.	17.118	Parts/million
Grains/U.S. gal.	142.86	Lbs./million gal.
Grams	0.03527	Ounces
Grams	2.205×10^{-3}	Pounds
Grams/Liter	58.417	Grains/Gal.
Grams/Liter	1,000	Parts/million (approx.)
Horsepower	33,000	Foot lbs./min.
Horsepower	0.7457	Kilowatts
Horsepower	745.7	Watts
Inches	2.54	Centimeters
Inches of mercury	1.133	Feet of water
Inches of mercury	0.49	Lbs./sq. inch
Inches of water	0.07355	Inches of mercury
Inches of water	0.03613	Lbs./sq. inch
Kilowatt hours	1.341	Horsepower hours
Liters	0.03531	Cubic feet
Liters	0.2642	Gallons
Liters	1.057	Quarts (liq.)
Width (in) x Thickness (in) / 12	Length (ft)	Board feet
Meters	3.281	Feet
Meters	39.37	Inches
Miles	5280	Feet
Miles	1760	Yards
Millimeters/liter	1	Parts/million (approx.)
Million gals./day	1.54723	Cubic ft./sec.
Ounces	0.0625	Pounds
Ounces	28.3495	Grams
Overflow rate (ft/hr)	$0.12468 \times \text{area (sq. ft.)}$	Gals./min.
Parts/million	0.0584	Grains/U.S. gal.
Parts/million	8.345	Lbs./million gal.
Pounds	16	Ounces

Pounds	7,000	Grains
Pounds	453.5924	Grams
Pounds of water	0.01602	Cubic feet
Pounds of water	0.1198	Gallons
Pounds/sq. inch	2.307	Feet of water
Pounds/sq. inch	2.036	Inches of mercury
Revolutions	360	Degrees
Square feet	2.296×10^{-5}	Acres
Square feet	144	Square inches
Square feet	1/9	Square yards
Square inches	6.542	Square centimeters
Square meters	10.76	Square feet
Square miles	640	Acres
Square yards	9	Square feet
Temp. (°C) + 17.78	1.8	Temp. (°F)
Temp. (°F) - 32	5/9	Temp. (°C)
Watts	1.341×10^{-3}	Horsepower
Yards	3	Feet
Yards	36	Inches
Yards	0.9144	Meters

UNITS

1	milligram per liter	=	1	part per million @ 4°C
1	kilogram	=	2.205	pounds
1	pound	=	453.6	grams
1	grain per gallon	=	17.12	parts per million
1	grain per gallon	=	142.9	lbs. per million gallons
1	part per million	=	0.0584	grains per gallon
1	gallon	=	231	cubic inches
1	cubic foot	=	7.48	gallons

1	cubic foot of water	=	62.4	pounds
1	gallon of water	=	8.34	pounds
1	gallon	=	3.785	liters
1	liter	=	0.2642	gallons
1	liter	=	1.057	quarts
1	liter	=	61.02	cubic inches
1	inch	=	2.54	centimeters
1	centimeter	=	0.3937	inches
1	cubic foot per second	=	646300	gallons per 24 hours
1	cubic foot per second	=	449	gallons per minute
1,000,000	gallons per 24 hours	=	1.547	cubic feet per second
1,000,000	gallons per 24 hours	=	694	gallons per minute
1	part per million	=	8.34	lbs. per million gallons
1	lb. per million gallons	=	0.1199	parts per million
1	acre	=	43560	square feet
1	gram	=	15432	grains
1	pound	=	7000	grains of wheat
1	meter	=	39.37	inches
1	cubic centimeter	=	0.061	cubic inches
1	cubic inch	=	16.387	cubic centimeters
1	quart	=	0.946	liters
1	gram	=	0.0353	ounces
1	ounce	=	28.35	grams
	Centigrade temperature	=	(Fahrenheit - 32) x 5/9	
	Fahrenheit temperature	=	(Centigrade x 9/5) + 32	

References

History

Attachments