

## Latent Heats of Fusion and Vaporization at Standard Pressure

Substance	Melting point (°C)	$L_f$ (J/kg)	Boiling point (°C)	$L_v$ (J/kg)
nitrogen	−209.97	$2.55 \times 10^4$	−195.81	$2.01 \times 10^5$
oxygen	−218.79	$1.38 \times 10^4$	−182.97	$2.13 \times 10^5$
ethyl alcohol	−114	$1.04 \times 10^5$	78	$8.54 \times 10^5$
water	0.00	$3.33 \times 10^5$	100.00	$2.26 \times 10^6$
lead	327.3	$2.45 \times 10^4$	1745	$8.70 \times 10^5$
aluminum	660.4	$3.97 \times 10^5$	2467	$1.14 \times 10^7$

## Speed of Sound in Various Media

Medium	$v$ (m/s)	Medium	$v$ (m/s)	Medium	$v$ (m/s)
<b>Gases</b>		<b>Liquids at 25°C</b>		<b>Solids</b>	
air (0°C)	331	methyl alcohol	1140	aluminum	5100
air (25°C)	346	sea water	1530	copper	3560
air (100°C)	366	water	1490	iron	5130
helium (0°C)	972			lead	1320
hydrogen (0°C)	1290			vulcanized rubber	54
oxygen (0°C)	317				

## Conversion of Intensity to Decibel Level

Intensity ( $\text{W/m}^2$ )	Decibel level (dB)	Examples
$1.0 \times 10^{-12}$	0	threshold of hearing
$1.0 \times 10^{-11}$	10	rustling leaves
$1.0 \times 10^{-10}$	20	quiet whisper
$1.0 \times 10^{-9}$	30	whisper
$1.0 \times 10^{-8}$	40	mosquito buzzing
$1.0 \times 10^{-7}$	50	normal conversation
$1.0 \times 10^{-6}$	60	air conditioning at 6 m
$1.0 \times 10^{-5}$	70	vacuum cleaner
$1.0 \times 10^{-4}$	80	busy traffic, alarm clock
$1.0 \times 10^{-3}$	90	lawn mower
$1.0 \times 10^{-2}$	100	subway, power motor
$1.0 \times 10^{-1}$	110	auto horn at 1 m
$1.0 \times 10^0$	120	threshold of pain
$1.0 \times 10^1$	130	thunderclap, machine gun
$1.0 \times 10^3$	150	nearby jet airplane