

Engineering ToolBox - Resources, Tools and Basic Information for Engineering and Design of Technical Applications!

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Fluids - Latent Heat of Evaporation

Latent heat of vaporization of fluids - alcohol, ether, nitrogen, water and more

The input energy required to change the state from liquid to vapor at constant temperature is called the latent heat of vaporization. When a liquid vaporize at the normal boiling point the temperature of the liquid will not rise beyond the temperature of the boiling point.

The latent heat of vaporization is the amount of

heat required to convert a unit mass of a liquid into vapor without a change in temperature.

Product	Latent Heat of Evaporation ^{*)} - <i>h_e</i> -	
	(kJ/kg)	(Btu/lb)
Acetic acid	402	173
Acetone	518	223
Alcohol	896	385
Alcohol, ethyl (ethanol)	846	364
Alcohol, methyl (methanol alcohol, wood alcohol, wood naphtha or wood spirits)	1100	473
Alcohol, propyl	779	335
Ammonia	1369	589
Aniline	450	193
Benzene	390	168
Bromine	193	83
Carbon bisulphide		160
Carbon dioxide	574	247
Carbon disulphide	351	151
Carbon tetrachloride	194	83
Chlorine	293	
Chloroform	247	106
Decane	263	113
Dodecane	256	110
Ether	377	162
Ethylene glycol	800	344
Trichlorofluoromethane refrigerant R-11	180	77
Dichlorodifluoromethane refrigerant R-12	165	71
Chlorodifluoromethane refrigerant R-22	232	100
Glycerine	974	419
Helium	21	9
Heptane	318	137
Hexane	365	157
Hydrogen	461	198
lodine	164	71
Kerosene	251	108
Mercury	295	127
Methyl chloride	406	
Nitrogen	199	86
Octane	298	128
Oxygen	214	92
Propane	428	184
Propylene	342	147
Propylene glycol	914	393
Sulphur	1510	650
Sulfur dioxide	10.0	164
Toluene	351	151
Turpentine	293	126