

1.000 for the interval between 0° and 1° centigrade, a number which is due to the choice of water in defining the calorie or fundamental unit of heat. The calorie, small calorie, or gram calorie is that quantity of heat which is required to raise the temperature of one gram of water through 1° centigrade, and it varies slightly with the temperature, having the relative values 1.000 for the interval from 0° to 1°, 0.998 for the interval from 4° to 5°, 0.992 for the interval from 15° to 16°, and its mean value for the interval from 0° to 100° is 1.004. The heat capacity of water is then 1.000, in that 1.000 calorie is required to raise the temperature of 1.000 gram of water through 1.000 degree centigrade.

The approximate specific heats of a variety of important substances are as follows:—

Water	{ liquid 1.00	Glass 0.20
	{ solid 0.50	Sugar 0.30
	{ gas 0.3-0.5	Ammonia, liquid . . . 1.23
Lead	0.03	Chloroform 0.24
Iron	0.10	Hydrogen 3.4
Quartz	0.19	Alcohol 0.5-0.7
Salt	0.21	Hexane 0.50
Marble	0.22	

It is unnecessary to enter upon an elaborate analysis of the data concerning specific heats, for the magnitude of the specific heat of a substance is dependent upon its chemical nature, as was first made clear by Dulong