TWISTED METALCRAFT
Stainless Steel Fabrication and Supplies.

Density of Stainless Steels.

The formula for finding the mass (denoted as M in the diagram) of an object is fairly straightforward and simple to use, so long as you make sure that all of your measurements are in the correct format, eg in this particular table the specific gravity is measured in grams /cm cubed.
And so all measurements must be made in the centimetre format to arrive at the right weight.
The formula is:

$$P = \frac{M}{V}$$

P = The Density

M= The Mass (measured in grams)

V= The Volume

Given the above formula lets work out how much a sheet of 304 type Stainless Steel with the dimensions of 1000mm X 1500mm X 1.2mm weighs. First things first, we must convert the measurement to cm, we can do this by moving the decimal point to the left by 1 unit, this will give 100cm X 150cm X 0.12cm.
Lets now put this into the equation:

$$7.93 = \frac{M}{(100x150x0.12)}$$

Due to the fact that M is the unknown quantity we must rearrange the equation to look like this:

7.93 X (100x150x0.12) = M (or in this case 14274 grams)
You can then convert the grams to kg by dividing by 1000, which would be 14.274 kg

Material	*Type*	*Grade*	*Specific gravity*
Stainless steel	Austenitic Grades	201, 202, 301, 301L, 301J1, 302, 302B, 303, 303Se 304, 304L, 304N1, 304N2, 304LN, 304J1, 304J2 305, 321	7.93
		309S, 310S, 316, 316L, 316N, 316LN, 316J1L, 317 317L, 347	7.98
		317J1	8
		XM15J1	7.75
		317LN	7.97
		836L	8.06
		890L	8.05
	Austenitic Ferritic Grades	329J1, 329J3L, 329J4L	7.8
	Martensitic Grades	403, 410, 410J1, 410S, 416, 420J1, 420J2, 420F 431	7.75
		440A, 440B, 440C, 440F	7.7
	Ferritic Grades	405, 410L, 444	7.75
		429, 430, 430F, 430XL, 430J1L, 434, 436L, 436J1L	7.7
		447J1	7.64
	Austenitic Ferritic Grades	630, 631	7.93