## **Magnesium Measurement**

Magnesium Oxide 56% (provides 0.56g magnesium per gram)

Volume Measure	Weight in grams  1 <sup>st</sup> 2 <sup>nd</sup> 3 <sup>rd</sup> 4 <sup>th</sup>				Average Weight (Closest 3)	Magnesium Provided*
						(Avg x .56)
1 Tsp – (teaspoon A)	5.8 x	5.0	5.1	5.0	5.03	2.8 g
1 Tsp – (teaspoon B)	5.3	6.0 x	5.2	5.3	5.26	2.9 g
1 Tsp – (teaspoon C)	5.5	5.6	5.3 x	5.6	5.56	3.1 g
½ Tsp – (1/2 tsp D)	2.7	2.9 x	2.7	2.7	2.7	1.5 g
½ Tsp – (1/2 tsp E)	2.5	2.7	2.5	2.5	2.5	1.4 g
Tablespoon	14.6 x	13.9	14.1	13.8	13.9	7.8 g (8 g)

I weighed each volume measure (teaspoon, ½ teaspoon, tablespoon) four times, eliminated the high/low and averaged the remaining three.

Magnesium may range from a very fine powder to a coarse granule – the fineness of the grind will affect the volume measurement. I would err on the high/conservative side and count each teaspoon of magnesium oxide as containing approximately 3g magnesium. The differences between magnesium oxide 56% and magnesium oxide 54% or 58% are negligible.

We "expect" 1 tablespoon to equal 3 teaspoons; the tablespoon measure I used was actually less than 3 teaspoons. This is a good illustration of when a "standard" volume measure may not actually be "standard".

## \*Caution:

The table above provides a safe *approximate* dosing volume for magnesium oxide. These volumes/weights apply to *this particular bag of magnesium oxide* and *my measuring spoons*. When working with straight minerals, you should obtain a reliable gram scale and use it often to confirm the actual doses of minerals you are feeding.

Mineral weights can vary due to coarseness or fineness of grind, moisture content, caking or stirring. "Standard" volume measures (measuring spoons, etc.) can and do vary. When working with major minerals that are measured in grams (calcium, magnesium, phosphorus, sodium) there is a fairly large tolerance for error. But when working with concentrated trace minerals, a small variance can greatly increase the dose.

It is also important to understand that minerals come in varying concentrations (percents); you need to understand what these concentrations mean and how they affect the total dose based on weight.