

# HEALTH AND WISDOM INC.

## Certificate of Analysis

<b>Product</b>	<b>Magnesium Oil, USP</b>
<b>Appearance</b>	Crystal Clear Liquid
<b>Lot Number</b>	201
<b>Date</b>	August 21, 2011
<b>Testing Method</b>	Monograph USP XXXIII

<i>TEST</i>	<i>REQUIREMENTS</i>	<i>TEST RESULTS</i>
Identification A (for magnesium) <sup>3</sup>	To Pass Test <sup>4</sup>	Pass
Identification B (for chloride) <sup>3</sup>	To Pass Test <sup>4</sup>	Pass
pH <sup>3</sup>	4.5 - 7.0	6.4
Insoluble Matter	0.005% Max	<0.005%
Aluminum <sup>1,2</sup>	0.67 ppm	<0.031 ppm
Barium	To Pass Test	Pass
Calcium	0.01% Max	0.0090%
Potassium	To Pass Test	Pass
Sulfate	0.005% Max	<0.005%
Heavy Metals <sup>3</sup>	0.001% Max	<0.001%
Organic Volatile Impurities	Certified Free	Free
Iron	To Pass Test	Pass
Assay (as liquid Magnesium Chloride)	28.1 - 31.3%	31.1%

Specific Gravity 1.27

### NOTES

<sup>1</sup> Alternate ICP (Inductively Coupled Plasma Optical Emission Spectrometer) procedure used for detection of aluminum.

<sup>2</sup> Aluminum limit revised for liquid with lower detection limit of 0.67 ppm.

<sup>3</sup> Tests performed on material as if hexahydrate (sample weights were increased to compensate for decreased concentration).

<sup>4</sup> Pass / Fail against USP Standards

<sup>5</sup> The Validation process for this instrument is a several week process which validates the installation; operation and performance of the instrument...for accuracy, precision, interferences, and detection limits filtered through 1 micron filters.

About the testing facilities: Health And Wisdom's Magnesium Oil is the very same material used in pharmaceutical products – some of which are a part of literally keeping a large number of people with certain disorders alive. The testing facility (unlike many others) is not only staffed by PhD chemists (not lab techs) but also houses specialized instruments that measure metals in the parts per billion level. It is a pharmaceutical laboratory (that is NOT some environmental laboratory that uses ASTM methods to test waters and wastes ....having no experience nor expertise in US Pharmacopeia methodologies nor the cGMP requirements that go beyond merely testing to USP monographs but qualifying raw materials, etc.) but specializes in testing of saline matrixes – few bother to validate their results in specific matrixes. Validation is an extensive process involving proving the accuracy, precision, robustness, specificity, detection limit, quantitation limit and linearity range for identifying the analytes in question in the saline matrix. In layman's terms, pick say....aluminum. Aluminum can be measured in water. Measuring aluminum AND BEING CERTAIN you are measuring Aluminum actually in a salt matrix....say 30% Magnesium chloride – that's a whole different matter.

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