Eniva Research Group

Research Initiative: Analysis for the presence of Monosodium Glutamate (MSG) in the VIBE™ Nutraceutical (2005)

To Whom It May Concern:

The Eniva Corporation takes great pride and care in the formulation and manufacturing of its wellness products. We are dedicated to producing products that are safe, quality driven, effective, and innovative. To do so, we subject our products and the product development process to serious review and rigorous testing.

This letter is to help explain the results and rationale behind the testing of the Eniva Vibe product for Monosodium Glutamate (MSG). MSG is an artificial fine white crystalline substance, similar in appearance to salt, that is *added* to nutritional and food products to enhance flavor. As an additive, MSG excites the nerves in the tongue and brain, which boost food flavors. Of concern is the fact that MSG can cause negative chemical sensitivity reactions (such as headache, swelling, difficulty breathing and hives) in people who consume it.

Mono-Sodium Glutamate chemically is a combination of a sodium ion and glutamic acid residue (a derivative of the amino acid glutamate). Glutamate itself is naturally derived from many food sources. Sodium is also derived from many natural sources and is normally found within the human body. When testing for MSG, laboratories will test for glutamic acid and sodium ions. The MSG content is then calculated from these results. As one may conclude, it may be possible to obtain *false-positive* results if individual glutamate and sodium ions exist already in a product due to natural occurrence. It is therefore critical to evaluate the final concentration of “apparent” MSG in the laboratory results and compare to concentrations used for enhancement of flavoring, which are quite large.

An independent pharmaceutical laboratory has tested the Eniva Vibe product for MSG. The results of this testing demonstrated that NO MSG had been added to the Eniva Vibe product. Any apparent presence was simply the result of naturally occurring amino acids and sodium found in the product. This result, as verified by the “calculated” MSG level, was several times less than the amount that would be used by a manufacturer to enhance flavor.

At Eniva, are dedicated to providing products that are of utmost quality and purity. The additive MSG WAS NOT FOUND IN THE ENIVA VIBE PRODUCT. The Eniva Research Group does, and will not, add this substance to Eniva products. This type of testing is performed on a routine basis.

Respectfully,

The Eniva Research Group

IBC Labs

INTEGRATED BIOMOLECULE CORPORATION

Company: Eniva
Date: June 8, 2005

ANALYTICAL REPORT

Sample:	Lot Number:
Vibe	**20013905**

Analyte	Result	Unit
Glutamic Acid (free acid anion)	0.255	mg / g
Sodium ion (cation)	0.103	mcg / g
calc. MonoSodium Glutamate	0.308	mcg / g

Glutamic acid analysis performed by derivatization according to the AccQtag methodology (Waters, Inc.) using 20 mM HCl, Borate buffer, and AQC reagent in acetonitrile (1:3:1, v/v/v), followed by HPLC using Waters Extera C18 column (150x3.5mm, 3mm), 40°C, with isocratic mobile phase consisting of 20mM Potassium phosphate, pH3.0/Acetonitrile (95:5) 1.5ml/min with UV detection (254nm). Identification/ quantification by external standards method; standards obtained from Sigma-Aldrich.
Sodium ion analysis performed by ICP-MS (Agilent HP-7500a) on 5% HNO3 digested solution of elemental species, (1000mg / 100ml). Sample introduced as a 1:100 dilution at 1 ml / min at atmospheric pressure, pneumatically nebulized with Ar carrier gas (1.4L / min). Matrix decomposition performed in normal Ar plasma (15L / min) with direct sampling analysis. Analysis performed in full quantification mode (six data points) with a scan rate of 0.3 sec per point. Data average over ten repetitions. Quantification performed against a standard calibration curve for twenty-three elemental ions over five calibration levels. Standard solution obtained from Absolute Standards and is NIST traceable.