

July 31, 2014

Diet Standards  
 4023 Kennett Pike  
 Suite 54624  
 Wilmington, DE 19807

**CERTIFICATE OF ANALYSIS**

AR-14-KK-012680-01  
 Batch #: EUCAPE-00056370

**Sample Identification:**

Sample #: 740-2014-00011347  
 Description: Amino HD 1000, 450 Capsules, Lot #0514154, Production Date: June / July 2014, Serving = 2 Capsules  
 Condition: Capsules in a sealed consumer labeled bottle received at room temperature.  
 Date Received: July 07, 2014

**KK02W: Heavy Metals (As, Cd, Hg, and Pb)**

Method Reference: AOAC 993.14 Mod.

Completed: 07/24/2014

	<b>Result</b>	<b>Theoretical Level</b>
Arsenic (As)	0.009 ppm	
Lead (Pb)	0.006 ppm	
Cadmium (Cd)	0.001 ppm	
Mercury (Hg)	0.038 ppm	

**KK130: Average content weight**

Method Reference: Not applicable

Completed: 07/31/2014

	<b>Result</b>	<b>Theoretical Level</b>
Average content weight	490.80 mg/Capsule	

**KK506: BCAA Profile, Free (HPLC) with OPA/Fmoc Derivatization**

Method Reference: Internal Method

Completed: 07/24/2014

	<b>Result</b>	<b>Theoretical Level</b>
Isoleucine (Free)	250 mg/Serving	
Leucine (Free)	494 mg/Serving	
Valine (Free)	232 mg/Serving	

**QA045: Residual Solvents (Class 1)**

Method Reference: USP/NF 467

Completed: 07/31/2014

	<b>Result</b>	<b>Theoretical Level</b>
1,1-Dichloroethene	<3.0 µg/g	
1,2-Dichloroethane	<5.0 µg/g	
1,1,1-Trichloroethane	<10 µg/g	
Benzene	<2.0 µg/g	
Sample extraction solvent	DMSO	
Carbon tetrachloride	<4.0 µg/g	

**QA046: Residual Solvents (Class 2)**

**Method Reference:** USP/NF 467

**Completed:** 07/31/2014

	<b>Result</b>	<b>Theoretical Level</b>
Ethylene glycol	<50 µg/g	
Trichloroethylene	<5.0 µg/g	
1,4-Dioxane	<5.0 µg/g	
Chlorobenzene	<5.0 µg/g	
n-Hexane	<5.0 µg/g	
Chloroform	<5.0 µg/g	
Methylene Chloride	<5.0 µg/g	
Cyclohexane	<5.0 µg/g	
Acetonitrile	<50 µg/g	
Tetrahydrofurane	<5.0 µg/g	
Pyridine	<50 µg/g	
1,2-Dimethoxyethane	<5.0 µg/g	
Formamide	<50 µg/g	
2-Methoxyethanol	<50 µg/g	
2-Hexanone	<5.0 µg/g	
Isopropylbenzene (Cumene)	<5.0 µg/g	
Nitromethane	<5.0 µg/g	
Methylcyclohexane	<5.0 µg/g	
N-Methyl-pyrrolidone	<50 µg/g	
Xylenes (sum)	<5.0 µg/g	
N,N-Dimethylformamide	<5.0 µg/g	
2-Ethoxyethanol	<50 µg/g	
Tetralin	<50 µg/g	
Toluene	<5.0 µg/g	
Dimethylacetamide	<5.0 µg/g	
Sample extraction solvent	DMSO/METHANOL	
Sulfolane	<50 µg/g	
1,2-Dichloroethene	<5.0 µg/g	
Methanol	<100 µg/g	

**QA12S: Residual Solvents (Class 3)**

**Method Reference:** USP/NF 467

**Completed:** 07/31/2014

	<b>Result</b>	<b>Theoretical Level</b>
Formic acid	<200 µg/g	
Butyl acetate	<200 µg/g	
Propyl acetate	<200 µg/g	
Heptane	<200 µg/g	
Isobutyl acetate	<200 µg/g	
MTBE (methyl-tert.-butylether)	<200 µg/g	
1-Pentanol	<200 µg/g	
Methyl Iso Butyl Ketone	<200 µg/g	
2-Butanon (Methylethylketon)	<200 µg/g	
Ethyl Ether	<200 µg/g	
Pentane	<200 µg/g	
Anisole	<200 µg/g	
2-Propanol	<200 µg/g	
Isopropyl acetate	<200 µg/g	
1-Propanol	<200 µg/g	
Methyl acetate	<200 µg/g	
Acetone	<200 µg/g	
Ethyl formate	<200 µg/g	
3-methyl 1-butanol	<200 µg/g	
Ethyl acetate	<200 µg/g	
2-Methyl-1-propanol	<200 µg/g	
Ethanol	<200 µg/g	
1-Butanol	<200 µg/g	
2-Butanol	<200 µg/g	
Dimethyl Sulfoxide (DMSO)	<200 µg/g	
Acetic acid	<200 µg/g	

**UMGSH: Salmonella - USP Chapter <62>**

**Method Reference:** U.S. Pharmacopeia Chapter 62

**Completed:** 07/24/2014

	<b>Result</b>	<b>Theoretical Level</b>
Salmonella	Not Detected per 10 g	

**UMI9G: Staphylococcus aureus - USP Chapter <62>**

**Method Reference:** U.S. Pharmacopeia Chapter 62

**Completed:** 07/24/2014

	<b>Result</b>	<b>Theoretical Level</b>
Staphylococcus aureus	Not Detected per 10 g	

**UMMDM: Moulds - USP Chapter <61>**

**Method Reference:** U.S. Pharmacopeia Chapter 61

**Completed:** 07/24/2014

	<b>Result</b>	<b>Theoretical Level</b>
Moulds	<10 (est) cfu/g	

**UMMDM: Yeast - USP Chapter <61>**

**Method Reference:** U.S. Pharmacopeia Chapter 61

**Completed:** 07/24/2014

	<b>Result</b>	<b>Theoretical Level</b>
Yeast	<10 (est) cfu/g	

**UMMDM: Yeast & Moulds - USP Chapter <61>**

**Method Reference:** U.S. Pharmacopeia Chapter 61

**Completed:** 07/24/2014

	<b>Result</b>	<b>Theoretical Level</b>
Yeast & Moulds	<10 (est) cfu/g	

**UMMYZ: Total Aerobic Microbial Count - USP Chapter <61>****Method Reference:** U.S. Pharmacopeia Chapter 61**Completed:** 07/24/2014

	<u>Result</u>	<u>Theoretical Level</u>
Total Aerobic Microbial Count	20 (est) cfu/g	

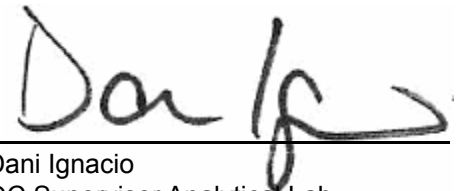
**UMRU4: Escherichia Coli - USP Chapter <62>****Method Reference:** U.S. Pharmacopeia Chapter 62**Completed:** 07/24/2014

	<u>Result</u>	<u>Theoretical Level</u>
Escherichia Coli	Not Detected per 10 g	

Results pertain only to the items tested.

Estimation of uncertainty of measurement is available upon request.

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