

January 22, 2020

CERTIFICATE OF ANALYSIS

AR-20-KK-000909-01

Batch #: EUCAPE-00119707

Sample Identification:

Sample #: 740-2020-01150034
 Description: TZHMB - HMB Ca Salt USA, Powder, Lot #20-15712
 Condition: Acceptable
 Date Received: January 15, 2020

K0148: Moisture %, Loss on Drying
Method Reference: USP <731>

Completed: 01/21/2020

Loss on drying

Result	Calculated	Theoretical Level
6.00 % (w/w)		

KK403: β -Hydroxy β -methylbutyric acid (HMB) (HPLC)
Method Reference: Internal Method

Completed: 01/22/2020

 Calcium β -Hydroxy-3-methylbutyrate (Ca HMB)

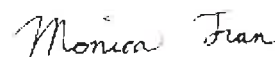
Result	Calculated	Theoretical Level
94.90 % (w/w)	101.0 % (w/w)	98.0-103.0 (Dry-weight) % (w/w)

Results pertain only to the items tested.

All results are reported on an as-is basis unless otherwise stated.

Estimation of uncertainty of measurement is available upon request.

Results shall not be reproduced except in full without written permission from Eurofins Scientific, Inc.



 Monica Tran
 Quality Control Supervisor

20-15712
ZHMB

JAN 15 2020
#36519
EB 11:12



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CERTIFICATE OF ANALYSIS



Calcium 3-Hydroxy 3-Methyl Butyrate(HMB), Monohydrate

Item No.	HMB001	Mfg Date	Sep.24,2019
Lot No.	HM20190910	Retest Date	Sep.23,2022

Item	Method	Specification	Results
Physical Properties	Appearance	Visual	White powder
	Bulk Density	USP<616>	NLT 0.55 g/ml
	Tap Density	USP<616>	NMT 0.90 g/ml
	Particle Size	USP<786>	100% through USS#20 (850 micron)
Analytical	CaHMB	HPLC	98.0-103.0%
	HMB	HPLC	77.0-82.0%
	Dimethylacrylic acid	HPLC	NMT 150 ppm
	Calcium (Ca ²⁺)	USP<541>	13.0-15.0%
	Acetate	HPLC	NMT 1.0%
	Moisture	USP<921 I>	5.0-7.5%
	Arsenic (As)	USP<730>/USP<852>	NMT 1.00 ppm
	Lead (Pb)	USP<730>/USP<852>	NMT 1.00 ppm
Microbial	Total Aerobic	USP<61>	NMT 1,000 cfu/g
	Yeast & Mold	USP<61>	NMT 100 cfu/g
	<i>E. coli</i>	USP<62>	Negative
	<i>Salmonella</i>	USP<62>	Negative

Prepared by Ming hui Li

Approved by Xinmei yang
QC Manager
TSI (China) Co., Ltd.

Date Oct. 12, 2019

Li M
Quality Manager
TSI (China) Co., Ltd.

Date Oct. 12, 2019

Manufactured by TSI (China), Co., Ltd. Shanghai, CHINA

John C. Fuller, Jr.
John C. Fuller, Jr., PhD, Metabolic Technologies, LLC

Date: 7-Jan-2020

REVIEWED

QA/QC: EB Date: 1/15/2020