

Certificate of Analysis

Stacker2 Europe BV

 Geerweg 2
 Sittard 6135KC Netherlands

Sample Name:	Rush V4 (Fruit Punch)	Covance Sample:	7381691
Project ID	STACKER2-20180611-0002	Receipt Date	11-Jun-2018
PO Number	CVD	Receipt Condition	Ambient temperature
Lot Number	F73806	Login Date	11-Jun-2018
Sample Serving Size		Online Order	30

Analysis	Result
Elements by ICP Mass Spectrometry	
Cadmium	<0.500 mcg/100g
Lead	2.03 mcg/100g
Mercury	<0.500 mcg/100g
Screening Method for the Detection of Adulterants in Weight Loss Supplements *	
1-Phenylethylamine	<10000 mcg/100g
2-Methylamino-1-phenylbutane	<200 mcg/100g
2-Phenylethylamine	<10000 mcg/100g
Aegeline	<2000 mcg/100g
Amphetamine	<100 mcg/100g
Benfluorex	<1000 mcg/100g
Benzphetamine	<100 mcg/100g
Benzyl Sibutramine	<100 mcg/100g
Bisacodyl	<100 mcg/100g
Bumetanide	<1000 mcg/100g
Bupropion	<100 mcg/100g
Cetilistat	<10000 mcg/100g
Chloro-Sibutramine	<200 mcg/100g
Dapoxetine	<1000 mcg/100g
Diclofenac	<1000 mcg/100g
Diethylpropion (Amfepramone)	<100 mcg/100g
Emodin	<500 mcg/100g
Ephedrine	<100 mcg/100g
Ephedrine, methylpseudo-	<100 mcg/100g
Ephedrine, methyl-	<100 mcg/100g
Ephedrine, nor-	<100 mcg/100g
Ephedrine, norpseudo-	<100 mcg/100g
Ephedrine, pseudo-	<100 mcg/100g
Fenfluramine	<100 mcg/100g
Fenproporex	<100 mcg/100g
Fluoxetine	<1000 mcg/100g
Furosemide	<10000 mcg/100g
Glybenclamide	<1000 mcg/100g
Homosibutramine	<200 mcg/100g
Hordenine	<500 mcg/100g
Lorcaserin	<1000 mcg/100g
Metformin	<1000 mcg/100g
Methylphenethylamine, beta	<100 mcg/100g

* This analysis is not ISO accredited.

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Analysis
Result
Screening Method for the Detection of Adulterants in Weight Loss Supplements *

N,N-Dimethylphenylethylamine	<100 mcg/100g
N-Desmethyl sertraline	<1000 mcg/100g
N-Desmethyl sibutramine	<100 mcg/100g
N-Didesmethyl sibutramine	<200 mcg/100g
N,alpha-Diethylphenethylamine	<100 mcg/100g
N-Formyl N,N-Didesmethyl Sibutramine	<200 mcg/100g
NIDA-41020	<200 mcg/100g
N-Methyltryptamine	<200 mcg/100g
N-Methyltyramine	<100 mcg/100g
Octopamine	<100000 mcg/100g
Orlistat	<1000 mcg/100g
Paroxetine	<200 mcg/100g
Phendimetrazine	<100 mcg/100g
Phenolphthalein	<1000 mcg/100g
Phentermine	<200 mcg/100g
Phenytoin	<10000 mcg/100g
Picamilon	<1000 mcg/100g
Propranolol	<500 mcg/100g
Rimonabant	<200 mcg/100g
Sertraline	<100 mcg/100g
Sibutramine	<100 mcg/100g
Synephrine	<1000 mcg/100g
Theobromine	<2000 mcg/100g
Theophylline	<2000 mcg/100g
Topiramate	<2000 mcg/100g
Tyramine	<2000 mcg/100g

Polycyclic Aromatic Hydrocarbons-Low Level

Benz(a)anthracene	<0.0250 mcg/100g
Benzo(a)pyrene	<0.0250 mcg/100g
Benzo(b)fluoranthene	<0.0250 mcg/100g
Chrysene	0.0279 mcg/100g
Sum of PAH4 analytes	0.0279 mcg/100g

Method References
Testing Location
Elements by ICP Mass Spectrometry (ICP_MS_S)
Covance Laboratories - Harrogate

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Method References

Testing Location

Elements by ICP Mass Spectrometry (ICP_MS_S)

Covance Laboratories - Harrogate

Official Methods of Analysis, Method 2011.19 and 993.14, AOAC INTERNATIONAL, (Modified).
Pequette, L.H., Szabo, A., Thompson, J.J., "Simultaneous Determination of Chromium, Selenium, and Molybdenum in Nutritional Products by Inductively Coupled Plasma/Mass Spectrometry: Single-Laboratory Validation," Journal of AOAC International, 94(4): 1240 - 1252 (2011).

Polycyclic Aromatic Hydrocarbons-Low Level (LLPAH_S)

Covance Laboratories - Madison

Covance Inc. developed method

Screening Method for the Detection of Adulterants in Weight Loss Supplements (ADULTER1_S)

Covance Laboratories - Madison

Lukas Vaclavik, Alexander J. Krynitsky, Jeanne I. Rader, "Mass spectrometric analysis of pharmaceutical adulterants in products labeled as botanical dietary supplements or herbal remedies: a review.," Analytical and Bioanalytical Chemistry, 27: 6767-6790 (2014).

B.J. Venhuis, M.E. Zwaagstrab, P.H.J. Keizersa, D. de Kaste, "Dose-to-dose variations with single packages of counterfeit medicines and adulterated dietary supplements as a potential source of false negatives and inaccurate health risk assessments," Journal of Pharmaceutical and Biomedical Analysis, 89:158-165 (2014).

Daniel J. Mansa, Ashley C. Gucinskia, Jamie D. Dunna, Connie M. Gryniwicz-Ruzicka, Laura C. Mecker-Poguea, Jeff L.-F. Kaob, Xia Geb, "Rapid screening and structural elucidation of a novel sibutramine analogue in a weight loss supplement: 11-Desisobutyl-11-benzylsibutramine," Journal of Pharmaceutical and Biomedical Analysis, 83:122-128 (2013).

Maciej J. Bogusz, Huda Hassan, Eid Al-Enazi, Zuhour Ibrahim, Mohammed Al-Tufail, "Application of LC-ESI-MS-MS for detection of synthetic adulterants in herbal remedies," Journal of Pharmaceutical and Biomedical Analysis, 41: 554-564 (2006).

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Testing Location(s)

Released on Behalf of Covance by

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