

Roar Vapor LLC

367 Vann Drive
Jackson, TN 38305

Carbonyl Assay
Samples Received 9/22/14

Product Name
Dangerously Good

Analysis Report
(0914-170)

HPLC/UV Analysis For
Diacetyl
2,3-Pentanedione (aka: Acetyl propionyl)



Enthalpy Analytical, Inc.

Phone: (919) 850 - 4392 / Fax: (919) 850 - 9012 / www.enthalpy.com
800-1 Capitola Drive Durham, NC 27713-4385



Company:	Roar Vapor LLC
Sample Condition:	Samples received in good condition.
Notes:	Chain of custody verified.

Method / Parameter	Analyte(s)
HPLC/UV Analysis	Diacetyl
	2,3-Pentanedione
	(aka: Acetyl propionyl)

Summary of Method:

An aliquot of e-Liquid and/or e-Liquid flavors are derivatized with 2,4-dinitrophenylhydrazine (DNPH). After the derivatization reaction is complete, samples are neutralized with pyridine and analyzed using an HPLC equipped with a UV detector.

In this analysis, the limit of detection is 0.299 ug/mL for 'Diacetyl' and 0.314 ug/mL for '2,3-Pentanedione'.

Company	Roar Vapor LLC	# Samples	1
Analyst	WJG	Sample(s) Received	9/22/14
Parameters	HPLC/UV Analysis	Client Project:	na
Job #	0914-170		

Enthalpy Code	Sample Name	Notes	Diacetyl (ug/mL)	2,3-Pentanedione (ug/mL)
0914-170-48	Dangerously Good		Not Detected	Not Detected

QC Notes:

'Diacetyl' and '2,3-Pentanedione' were not detected above the minimum detection limit.

I certify that to the best of my knowledge all analytical data presented in this report:

- Have been checked for completeness
- Are accurate, error-free, and legible
- Have been conducted in accordance with approved protocol, and that all deviations and analytical problems are summarized.

This analytical report was prepared in Portable Document Format (.PDF) and contains 2 pages.

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