

J GINKWO

O lco kI ctf gpu FL 33077

Carbonyl Assay

Samples Received 1/14/16

Product Name
Pink Lemonade 3D DX

Analysis Report

(0116-538)

GC/MS Analysis For:
Diacetyl
2,3-Pentanedione (aka: Acetyl propionyl)
Acetoin (aka: 3-Hydroxy-2-Butanone)



Enthalpy Analytical, Inc.

Phone: (919) 850 - 4392 / Fax: (919) 850 - 9012 / www.enthalpy.com

800-1 Capitola Drive Durham, NC 27713-4385





Company: Helium E-Liquids
Sample Condition: Samples received in good condition.
Notes: Chain of custody verified.

Method / SOP	Analytes
ENT225	Diacetyl
	2,3-Pentanedione (aka: Acetyl propionyl)
	Acetoin (aka: 3-Hydroxy-2-Butanone)

Summary of Method:

A measured volume of sample is combined with a volume of acetonitrile. A known amount of internal standard (Butanedione-d6) is added and the vial is capped and mixed thoroughly to combine. An aliquot is then analyzed quantitatively against a linear calibration curve using a GC/MS equipped with a mass selective detector.

Limit of Quantitation (LOQ), ug/mL	11.3	10.7	19.2
Minimum Detection Limit (MDL), ug/mL	1.13	1.07	1.87

Company	Helium E-Liquids
Analyst	KBK
Instrument Type	GC/MS
Project Code	0116-538

Cert Report #	0116-538
# Samples	1
Date Received	1/14/16
Client Project	Dec. Testing

Enthalpy Code	Sample Name	Notes	Diacetyl (ug/mL)	2,3-Pentanedione (ug/mL)	Acetoin (ug/mL)
0116-538-10	Pink Lemonade 3D DX	--	Not Detected	Not Detected	Not Detected

QC Notes:

Not Detected: Analytical result was not detected above the Minimum Detection Limit (MDL).

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. If you have trouble viewing this document's electronic signature, please open in Adobe Acrobat.

Report Issued: 2/2/2016



Enthalpy Analytical, Inc.

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

