

Loadlist-Alcohol Reference Solution Verification

Location	Sample
1	Volatiles Mix
2	Blank
3	Cerilliant 025
4	Cerilliant 100
5	Cerilliant 200
6	Cerilliant 400
7	Blank
8	Cerilliant 50
9	400
10	401
11	800
12	801
13	1200
14	1201
15	1600
16	1601
17	2000
18	2001
19	Fluka 100
20	400
21	401
22	800
23	801
24	1200
25	1201
26	1600
27	1601
28	2000
29	2001
30	Cerilliant 300

Instrument Parameters			
Sample Temp	60	C	✓
Needle Temp	70	C	✓
Transfer Temp	80	C	✓
Thermostat time	15	min	✓
Pressurization time	2.0	min	✓
Withdraw time	0.2	min	✓
Injection Time	0.03	min	✓
Cycle Time	4.5	min	✓
Inlet temp	90	C	✓
He Carrier pressure	15	psi	✓
Column oven temp	55	C	✓
Run Time	5.0	min	✓
FID Temp	220	C	✓
Hydrogen Flow	45	mL/min	✓
Air Flow	450	mL/min	✓

Procedure Used	Eff. Date
ATP-SOP section 2.14	Dec-16

Reagents, Calibrators and Controls

Materials	Lot	Exp. Date
Internal Standard	121416 TG	na
Volatiles Mixture	041513 DKR	na
Cerilliant 025	FN06221502	8/2020
Cerilliant 100	FN06181501	6/2020
Cerilliant 200	FN07201502	10/2020
Cerilliant 400	FN11191402	2/2020
Cerilliant 50	FN06231406	7/2019
Fluka 100 (33961)	SZBE029XV	1/29/2019
Cerilliant 300	FN02121601	2/2021

Reference Solution

Level Tested:	0.08 g/210L
Lot #:	201611B
Manufacture Date:	11/15/2016
Expiration Date:	11/15/2018

Operator: JJ RahamDate: 12/15/16

Alcohol Analysis QC Summary

Report Date	12/15/2016
Reviewer	TJ Graham

12/15/16

Run Summary Data			Ethanol			n-Propanol		
Run Date	Channel	Sample	Lot	RT	Area	Conc.	RT	Area
12/15/2016	A	Vols Mix	041513 DKR	1.412	22538.45	0.0374	2.005	203929.31
12/15/2016	A	Blank			0.00	0.0000	2.005	208734.65
12/15/2016	A	CER 025	FN062221502	1.412	14941.56	0.0248	2.005	206442.00
12/15/2016	A	CER 100	FN06181501	1.412	59477.62	0.0981	2.005	205510.33
12/15/2016	A	CER 200	FN07201502	1.411	120824.21	0.1983	2.005	205687.23
12/15/2016	A	CER 400	FN11191402	1.411	243568.94	0.3993	2.005	209759.95
12/15/2016	A	Blank			0.00	0.0000	2.005	206243.75
12/15/2016	A	Cerilliant 50	FN06231406	1.412	30213.51	0.0498	2.005	207278.26
12/15/2016	A	400	201611B	1.412	58683.83	0.0969	2.005	207662.94
12/15/2016	A	401	201611B	1.411	59410.05	0.0980	2.005	207862.30
12/15/2016	A	800	201611B	1.411	58524.77	0.0979	2.005	205058.67
12/15/2016	A	801	201611B	1.411	58540.14	0.0974	2.005	206236.77
12/15/2016	A	1200	201611B	1.411	58428.73	0.0967	2.005	207254.56
12/15/2016	A	1201	201611B	1.412	58883.65	0.0974	2.005	207281.39
12/15/2016	A	1600	201611B	1.412	59253.42	0.0966	2.005	210478.67
12/15/2016	A	1601	201611B	1.412	58832.06	0.0970	2.005	208081.32
12/15/2016	A	2000	201611B	1.412	58945.53	0.0971	2.005	208151.87
12/15/2016	A	2001	201611B	1.412	57978.75	0.0961	2.005	206903.34
12/15/2016	A	Fluka 100	SZBE029XV	1.412	58627.09	0.0969	2.005	207560.11
12/15/2016	A	400	201611B	1.412	58523.80	0.0971	2.005	206826.30
12/15/2016	A	401	201611B	1.412	58590.15	0.0983	2.005	204423.96
12/15/2016	A	800	201611B	1.412	59285.49	0.0971	2.005	209484.10
12/15/2016	A	801	201611B	1.412	58644.55	0.0976	2.005	206026.36
12/15/2016	A	1200	201611B	1.412	58954.55	0.0975	2.005	207370.67
12/15/2016	A	1201	201611B	1.412	58593.54	0.0970	2.005	207219.62
12/15/2016	A	1600	201611B	1.412	58626.36	0.0969	2.005	207634.21
12/15/2016	A	1601	201611B	1.412	59749.54	0.0964	2.006	212578.31
12/15/2016	A	2000	201611B	1.413	62109.85	0.0967	2.007	220229.85
12/15/2016	A	2001	201611B	1.411	59281.09	0.0969	2.005	209778.12
12/15/2016	A	Cerilliant 300	FN02121601	1.412	185870.98	0.3011	2.006	212198.29

%CV = 1.47%

ALCOHOL ANALYSIS QC SUMMARY

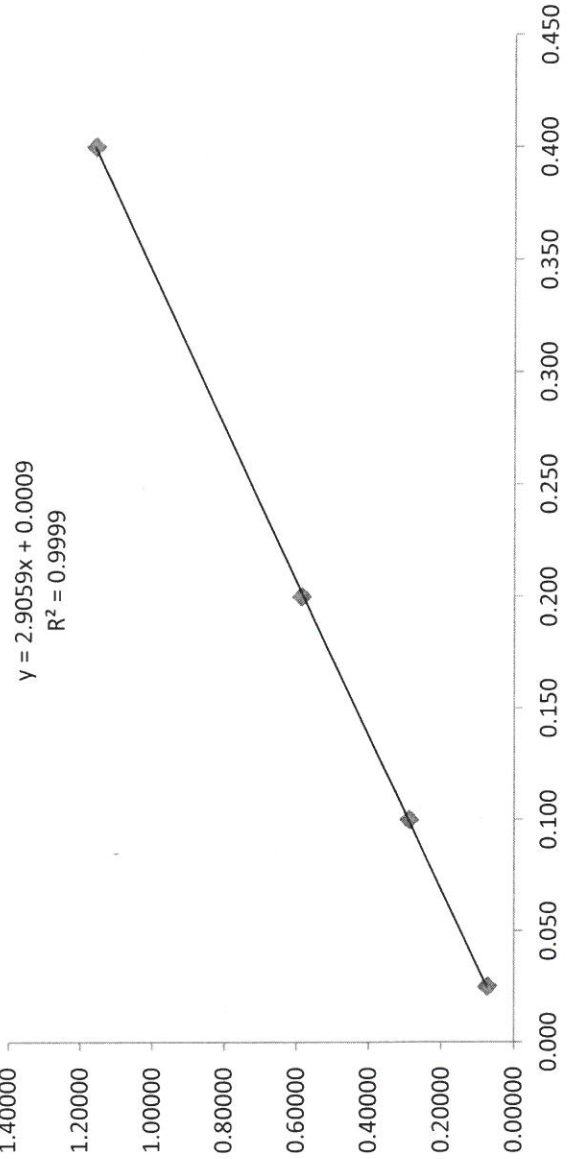
Report Date	12/15/2016
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JP 12/15/16

RUN SUMMARY DATA				Ethanol			n-Propanol	
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12/15/2016	A	CER 400	FN11191402	1.411	243568.94	0.3993	2.005	209759.95

Summary		Standard	g/dL	Ratio	Calc.	Diff
Slope		Blank	0.000	0.00000	0.00000	0.00000
	2.9059	CER 025	0.025	0.07238	0.02459	-0.00041
	0.0009	CER 100	0.100	0.28941	0.09928	-0.00072
Standard Error		CER 200	0.200	0.58742	0.20184	0.00184
R-Squared		CER 400	0.400	1.16118	0.39929	-0.00071

Analytical Curve



Source:	Alcohol Countermeasure Systems, Inc.
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Lot	201611B
Level	0.08 g/210L
Manufacture Date	11/15/2016
Expiration Date	11/15/2018

JE
12/15/14

Bottle	Result (g/100mL)
400	0.0969
	0.0971
401	0.0980
	0.0983
800	0.0979
	0.0971
801	0.0974
	0.0976
1200	0.0967
	0.0975
1201	0.0974
	0.0970
1600	0.0966
	0.0969
1601	0.0970
	0.0964
2000	0.0971
	0.0967
2001	0.0961
	0.0969

Mean	0.0971
Std. Dev.	0.0005
Min	0.0961
Max	0.0983