

Loadlist-Alcohol Reference Solution Verification

Location	Sample
1	Volatiles Mix
2	Blank
3	Cerilliant 25
4	Cerilliant 100
5	Cerilliant 200
6	Cerilliant 400
7	Blank
8	Cerilliant 50
9	367
10	368
11	369
12	371
13	372
14	379
15	380
16	382
17	383
18	384
19	Sigma-Aldrich 100
20	367
21	368
22	369
23	371
24	372
25	379
26	380
27	382
28	383
29	384
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	May-17

Reagents, Calibrators and Controls

Materials	Lot	Exp. Date
Internal Standard	080117 TG	na
Volatiles Mixture	041513 DKR	na
Water (Fisher Scientific)	167428	11/2021
Cerilliant 25	FN06221502	8/2020
Cerilliant 100	FN08101601	8/2021
Cerilliant 200	FN03301601	4/2021
Cerilliant 400	FN11191402	2/2020
Cerilliant 50	FN04271601	6/2021
Sigma-Aldrich 100 (33961)	SZBE029XV	1/29/2019
Cerilliant 300	FN02121601	2/2021

Reference Solution

Level Tested:	0.05 g/210 L
Lot #:	201707D
Manufacture Date:	7/25/2017
Expiration Date	7/25/2019

Operator: JD Graham

Date: 8/8/17

Alcohol Analysis QC Summary

Report Date	8/8/2017
Reviewer	TJ Graham

Run Summary Data			Ethanol				n-Propanol	
Run Date	Channel	Sample	Lot	RT	Area	Conc.	RT	Area
8/8/2017	A	Volatiles Mix	041513 DKR	1.412	22677.16	0.0382	2.005	207201.19
8/8/2017	A	Blank	167428		0.00	0.0000	2.005	211754.17
8/8/2017	A	CER 025	FN06221502	1.412	14699.22	0.0252	2.006	208480.08
8/8/2017	A	CER 100	FN08101601	1.412	60289.50	0.1000	2.006	208595.28
8/8/2017	A	CER 200	FN03301601	1.412	121400.45	0.1994	2.006	209708.30
8/8/2017	A	CER 400	FN11191402	1.412	239718.14	0.4000	2.006	206795.44
8/8/2017	A	Blank	167428		0.00	0.0000	2.006	208740.10
8/8/2017	A	Cerilliant 50	FN04271601	1.412	29448.13	0.0498	2.006	206178.00
8/8/2017	A	367	201707D	1.412	36963.65	0.0617	2.006	208242.06
8/8/2017	A	368	201707D	1.412	36459.00	0.0610	2.006	208019.85
8/8/2017	A	369	201707D	1.412	36294.37	0.0609	2.006	207154.15
8/8/2017	A	371	201707D	1.412	36973.96	0.0610	2.006	210746.45
8/8/2017	A	372	201707D	1.412	36570.50	0.0607	2.006	209438.76
8/8/2017	A	379	201707D	1.412	37255.71	0.0605	2.006	214227.80
8/8/2017	A	380	201707D	1.412	36782.05	0.0607	2.006	210605.37
8/8/2017	A	382	201707D	1.412	36435.53	0.0612	2.006	207181.93
8/8/2017	A	383	201707D	1.412	36338.79	0.0607	2.006	208183.48
8/8/2017	A	384	201707D	1.412	36959.39	0.0609	2.006	211189.76
8/8/2017	A	Sigma-Aldrich 100	SZBE029XV	1.412	59212.48	0.0973	2.006	210898.84
8/8/2017	A	367	201707D	1.412	36686.12	0.0609	2.006	209492.51
8/8/2017	A	368	201707D	1.412	36799.43	0.0601	2.006	213032.82
8/8/2017	A	369	201707D	1.412	36315.94	0.0604	2.006	209188.66
8/8/2017	A	371	201707D	1.412	36595.02	0.0607	2.006	209537.63
8/8/2017	A	372	201707D	1.412	36495.83	0.0606	2.006	209471.94
8/8/2017	A	379	201707D	1.412	36232.70	0.0600	2.005	209932.73
8/8/2017	A	380	201707D	1.412	36948.60	0.0609	2.006	211004.19
8/8/2017	A	382	201707D	1.412	36636.95	0.0605	2.006	210509.76
8/8/2017	A	383	201707D	1.412	37228.81	0.0610	2.005	212274.45
8/8/2017	A	384	201707D	1.412	37589.02	0.0606	2.006	215626.21
8/8/2017	A	Cerilliant 300	FN02121601	1.412	185733.51	0.2994	2.006	214156.97

%CV = 1.10%

8/8/17
JG

ALCOHOL ANALYSIS QC SUMMARY

Report Date	8/8/2017
Reviewer	TJ Graham

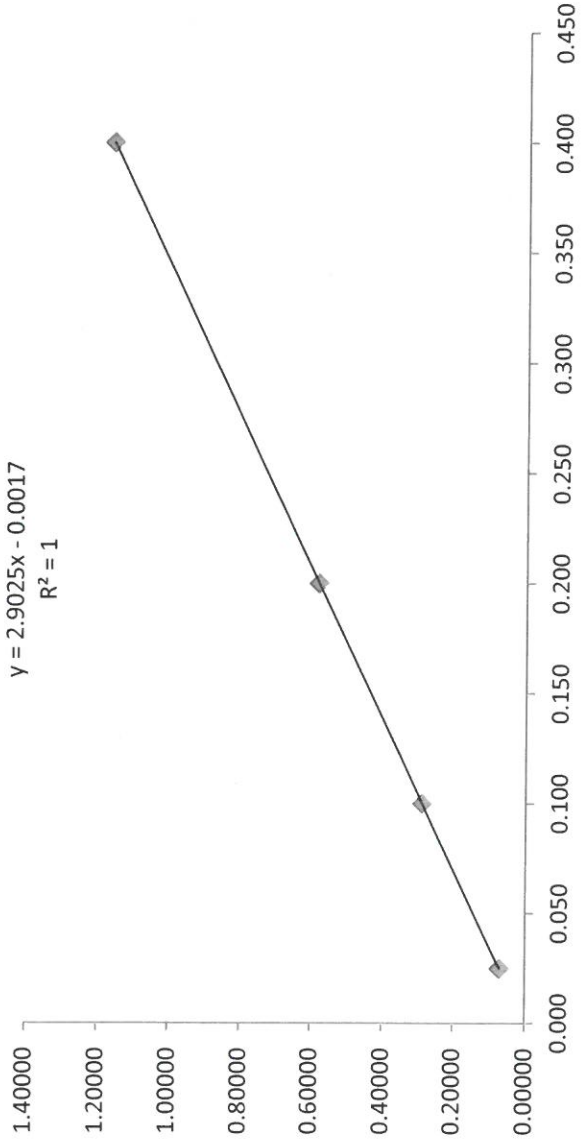
RUN SUMMARY DATA				Ethanol			n-Propanol	
Run Date	Channel	Sample	Lot	RT	Area	Conc.	RT	Area
8/8/2017	A	CER 025	FN06221502	1.412	14699.22	0.0252	2.006	208480.08
8/8/2017	A	CER 100	FN08101601	1.412	60289.50	0.1000	2.006	208595.28
8/8/2017	A	CER 200	FN03301601	1.412	121400.45	0.1994	2.006	209708.30
8/8/2017	A	CER 400	FN11191402	1.412	239718.14	0.4000	2.006	206795.44

Summary		Standard	g/dL	Ratio	Calc.	Diff
Slope		Blank	0.000	0.00000	0.00000	0.00000
	2.9025	CER 025	0.025	0.07051	0.02487	-0.00013
	-0.0017	CER 100	0.100	0.28903	0.10015	0.00015
Standard Error		CER 200	0.200	0.57890	0.20002	0.00002
R-Squared		CER 400	0.400	1.15920	0.39996	-0.00004

Analytical Curve

$$y = 2.9025x - 0.0017$$

$$R^2 = 1$$



Source:	Alcohol Countermeasure Systems, Inc.
---------	--------------------------------------

Lot	201707D
Level	0.05 g/210 L
Manufacture Date	7/25/2017
Expiration Date	7/25/2019

Bottle	Result (g/100mL)
367	0.0617
	0.0609
368	0.0610
	0.0601
369	0.0609
	0.0604
371	0.0610
	0.0607
372	0.0607
	0.0606
379	0.0605
	0.0600
380	0.0607
	0.0609
382	0.0612
	0.0605
383	0.0607
	0.0610
384	0.0609
	0.0606

Mean	0.0608
Std. Dev.	0.0004
Min	0.0600
Max	0.0617

8/8/17
JE