

Atmospheric Analysis & Consulting, Inc.

Client : SWAPE
Client Project Name : Bridgeton Sanitary Landfill Air Quality Assessment
Client Project No. : NA
AAC Project No. : 130947
Reporting Date : 07/30/2013

On July 23, 2013, Atmospheric Analysis & Consulting, Inc. received four (4) DNPH impregnated silica gel cartridges for Carbonyls analysis by EPA Method TO-11A. Upon receipt the samples were assigned unique Laboratory ID numbers as follows:

Client Sample ID	AAC Sample ID
U-1 W6 DNPH	130947-64738
U-2 FR Services DNPH	130947-64739
D-1 K DNPH	130947-64740
D-2 Helena DNPH	130947-64741

TO-11A - HPLC/UV analysis - A 10 μ L aliquot of the extract was analyzed by HPLC/UV following the analytical protocols of EPA Method TO-11A as specified in the SOW. Holding times for preparation and analysis were complied with.

No problems were encountered during the receipt, preparation, and/or analysis of these samples. The test results included in this report meet all requirements of the NELAC Standards and/or AAC SOP# TO.11.09.

I certify that this data is technically accurate, complete and in compliance with the terms and conditions of the contract. The Laboratory Director or his designee, as verified by the following signature, has authorized release of the data contained in this hardcopy data package.

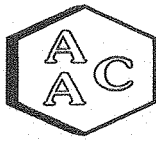
If you have any questions or require further explanation of data results, please contact the undersigned.


Marcus Hueppe
Laboratory Director



This report consists of 68 pages.





SAMPLE RECEIPT / LOG-IN REPORT

AAC Project 130947

Received By: W. Horn

<u>Sample Receipt Date</u>	<u>Project Desc</u>	<u>Clients ID</u>	<u>Matrix</u>	<u>Sampling Date/Time</u>	<u>Sampled By</u>	<u>Sample #</u>	<u>Analysis Requested</u>
7/23/2013 0935	Soil Water Air Protection Enterprise (SWAPE) Bridgeton Sanitary Landfill Air Quality Assessment	U-1 W6 DNPH	Tube	7/19/2013	Client	64738	TO-11A
7/23/2013 0935	Soil Water Air Protection Enterprise (SWAPE) Bridgeton Sanitary Landfill Air Quality Assessment	U-2 FR Services DNPH	Tube	7/19/2013	Client	64739	TO-11A
7/23/2013 0935	Soil Water Air Protection Enterprise (SWAPE) Bridgeton Sanitary Landfill Air Quality Assessment	D-1 K DNPH	Tube	7/19/2013	Client	64740	TO-11A
7/23/2013 0935	Soil Water Air Protection Enterprise (SWAPE) Bridgeton Sanitary Landfill Air Quality Assessment	D-2 Helena DNPH	Tube	7/19/2013	Client	64741	TO-11A

TURN AROUND TIME: Normal (10days)

Lab Due Date: 7/30/2013

Total Samples: 4

REMARKS:

Samples received at 6.0°C.

CHAIN OF CUSTODY RECORD / ANALYTICAL REQUEST FORM

Bridgeton Sanitary Landfill Air Quality Assessment

Client Name: SOIL / WATER AIR PROTECTION ENTERPRISE Telephone No. / Fax No.: (310) 434-0110 / (310) 434-0011 Date: **July 19th, 2013** Page 1 of 1

Project Manager: PAUL ROSENFELD, PH.D. REQUESTED TESTS / ANALYSES

Address: 1640 FIFTH STREET, SUITE 204, SANTA MONICA, CA 90401

Project Name and Location: BRIDGETON SANITARY LANDFILL AIR QUALITY ASSESSMENT

Sampled By: John Blank Sampler Signature: *John Blank*

LAB ID	SAMPLE ID NUMBER	DNPH	Type	Date	Time	VOCS - EPA TO-15	Reduced Sulfur Compounds - ASTM D5504	Carbonyls - EPA TO-11A	Carboxylic Acids - Tube GC-MS	HCL - NIOSH 7903	Ammonia - OSHA ID-188	SO2 - OSHA ID-200	HCN - NIOSH 6010	Amines - NIOSH 2010M	Fixed Gases - EPA 3C	PAHs / Dioxins EPA TO-13A / 9A	Mercury - NIOSH 6009	Odor Evaluation	Tube #	Sample Volume	
U-1 W6		DNPH	Tube	July 19th	4 Hr			X											Tube #	4440601055	236.76
U-2 FR Services		DNPH	Tube	July 19th	4 Hr			X											Tube #	4440601375	234.48
D-1 K		DNPH	Tube	July 19th	4 Hr			X											Tube #	4440601054	237.96
D-2 Helena		DNPH	Tube	July 19th	4 Hr			X											Tube #	4440601371	238.08

Requested Turnaround Time: Standard turn-around for all analyses. If possible deliver report within 2 weeks. QC Requirements: Provide Level IV QC Package for all Analyses.

Relinquished By: John Blank Date: 12 Noon Received By: Date: 7/23/13

Relinquished By: *John Blank* Date: July 19th, 2013 Time: Received By: *John Blank* Date: 7/23/13 Time: 0935

Relinquished By: Date: Time: Received By: Date: Time:

Relinquished By: Date: Time: Received By: Date: Time:

- Received @ 6:00e

AIR SAMPLING PUMP CALIBRATION LOG

Bridgeton Sanitary Landfill Air Quality Assessment

COMPLETED BY: John Blank

DATE: **July 19th 27th, 2013**

PAGE: 1 of 1

John Blank

CALIBRATION INSTRUMENT : **Biose Defenders510**

INITIAL PUMP SETUP (PRE-SAMPLING FLOW CHECK)

Sample ID	Analyte	SKC Tube ID	Air Pump Serial No.	START		END		Total Volume Liters
				Flow Rate (L/min)	Start Time (24 Hour)	Flow Rate (L/min)	Stop Time (24 Hour)	
e.g. acetalddehyde U-1 W6	e.g. acetalddehyde Aldehydes	e.g. 226-120 4440601055	e.g. 123456 67992	1.004	10:35:00	0.969	14:35:00	236.76
U-2 FR Services	Aldehydes	4440601375	59912	1.008	10:25:00	0.946	14:25:00	234.48
D-1 K	Aldehydes	4440601054	71526	1.022	9:25:00	0.961	13:25:00	237.96
D-2 Helena	Aldehydes	4440601371	67385	1.014	10:10:00	0.97	14:10:00	238.08

NOTES / LOCATION REFERENCES

TUBES: ANALYTE SKC TUBE ID

Aldehydes 226-120

Amines 226-10

Ammonia 226-29

Carboxylic Acids 226-55

SKC TUBE ID

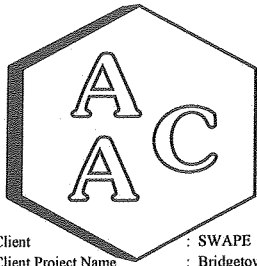
226-10-03

226-28

226-17-1A

226-80

Results



Atmospheric Analysis & Consulting, Inc.


LABORATORY ANALYSIS REPORT Analysis of Carbonyls by EPA Method TO-11A

Client : SWAPE
 Client Project Name : Bridgetown Sanitary Landfill Air Quality Assessment
 AAC Project No. : 130947
 Analyst : HP/EG
 Units : ppbv

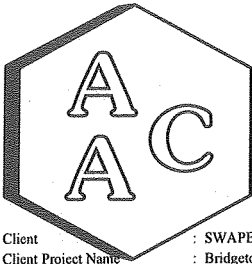
Sampling Date (s) : 07/19/2013
 Receiving Date : 07/23/2013
 Analysis Date : 07/29/2013
 Reporting Date : 07/30/2013

Client Sample ID	AAC Sample ID	Formaldehyde	Acetaldehyde	Acrolein	Acetone	Propionaldehyde	Crotonaldehyde	Methacrolein	MEK & Butyraldehyde	Benzaldehyde	Valeraldehyde	m-Tolualdehyde	Hexaldehyde
U-1 W6 DNPH	130947-64738	1.07	0.354	<SRL	1.55	<SRL	0.134	<SRL	0.216	<SRL	0.091	<SRL	<SRL
SRL		0.258	0.176	0.138	0.133	0.133	0.111	0.111	0.107	0.073	0.090	0.064	0.077
U-2 FR Services DNPH	130947-64739	2.97	0.527	<SRL	0.725	<SRL	0.258	0.162	0.187	<SRL	0.278	0.085	<SRL
SRL		0.260	0.178	0.140	0.135	0.135	0.112	0.112	0.108	0.074	0.091	0.065	0.078
D-1 K DNPH	130947-64740	3.46	0.631	<SRL	0.649	0.163	0.555	0.329	0.245	<SRL	0.311	0.123	<SRL
SRL		0.257	0.175	0.137	0.133	0.133	0.110	0.110	0.107	0.073	0.089	0.064	0.077
D-2 Helena DNPH	130947-64741	0.982	0.436	<SRL	1.64	<SRL	<SRL	<SRL	0.277	<SRL	0.125	<SRL	<SRL
SRL		0.256	0.175	0.137	0.133	0.133	0.110	0.110	0.107	0.073	0.089	0.064	0.077

<SRL-compound was analyzed for but not detected at or above the SRL (Sample Reporting Limit)


 Marcus Hueppe
 Laboratory Director





Atmospheric Analysis & Consulting, Inc.


LABORATORY ANALYSIS REPORT Analysis of Carbonyls by EPA Method TO-11A

Client : SWAPE
 Client Project Name : Bridgetown Sanitary Landfill Air Quality Assessment
 AAC Project No. : 130947
 Analyst : HP/EG
 Units : ug/m³

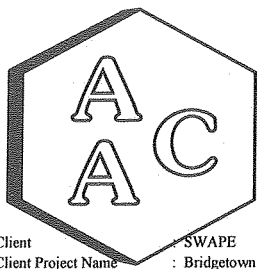
Sampling Date (s) : 07/19/2013
 Receiving Date : 07/23/2013
 Analysis Date : 07/29/2013
 Reporting Date : 07/30/2013

Client ID	AAC Sample ID	Formaldehyde	Acetaldehyde	Acrolein	Acetone	Propionaldehyde	Crotonaldehyde	Methacrolein	MEK & Butyraldehyde	Benzaldehyde	Valeraldehyde	m-Tolualdehyde	Hexaldehyde
U-1 W6 DNPH	130947-64738	1.32	0.637	<SRL	3.68	<SRL	0.385	<SRL	0.637	<SRL	0.322	<SRL	<SRL
SRL		0.317	0.317	0.317	0.317	0.317	0.317	0.317	0.317	0.317	0.317	0.317	0.317
U-2 FR Services DNPH	130947-64739	3.65	0.949	<SRL	1.72	<SRL	0.738	0.463	0.551	<SRL	0.980	0.417	<SRL
SRL		0.320	0.320	0.320	0.320	0.320	0.320	0.320	0.320	0.320	0.320	0.320	0.320
D-1 K DNPH	130947-64740	4.24	1.14	<SRL	1.54	0.388	1.590	0.944	0.721	<SRL	1.10	0.604	<SRL
SRL		0.315	0.315	0.315	0.315	0.315	0.315	0.315	0.315	0.315	0.315	0.315	0.315
D-2 Helena DNPH	130947-64741	1.21	0.786	<SRL	3.90	<SRL	<SRL	<SRL	0.817	<SRL	0.440	<SRL	<SRL
SRL		0.315	0.315	0.315	0.315	0.315	0.315	0.315	0.315	0.315	0.315	0.315	0.315

<SRL-compound was analyzed for but not detected at or above the SRL (Sample Reporting Limit)


 Marcus Hueppe
 Laboratory Director





Atmospheric Analysis & Consulting, Inc.

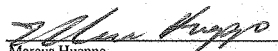
LABORATORY ANALYSIS REPORT Analysis of Carbonyls by EPA Method TO-11A

Client : SWAPE
 Client Project Name : Bridgetown Sanitary Landfill Air Quality Assessment
 AAC Project No. : 130947
 Analyst : HP/EG
 Units : ug/sample

Sampling Date (s) : 07/19/2013
 Receiving Date : 07/23/2013
 Analysis Date : 07/29/2013
 Reporting Date : 07/30/2013

Client ID	AAC Sample ID	Formaldehyde	Acetaldehyde	Acrolein	Acetone	Propionaldehyde	Crotonaldehyde	Methacrolein	MEK & Butyraldehyde	Benzaldehyde	Valeraldehyde	m-Tolualdehyde	Hexaldehyde
U-1 W6 DNPH	130947-64738	0.313	0.151	<SRL	0.872	<SRL	0.091	<SRL	0.151	<SRL	0.076	<SRL	<SRL
SRL		0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075
U-2 FR Services DNPH	130947-64739	0.856	0.223	<SRL	0.404	<SRL	0.173	0.109	0.129	<SRL	0.230	0.098	<SRL
SRL		0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075
D-1 K DNPH	130947-64740	1.01	0.271	<SRL	0.367	0.092	0.378	0.225	0.172	<SRL	0.261	0.144	<SRL
SRL		0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075
D-2 Helena DNPH	130947-64741	0.287	0.187	<SRL	0.928	<SRL	<SRL	<SRL	0.194	<SRL	0.105	<SRL	<SRL
SRL		0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075	0.075

<SRL-compound was analyzed for but not detected at or above the SRL (Sample Reporting Limit)

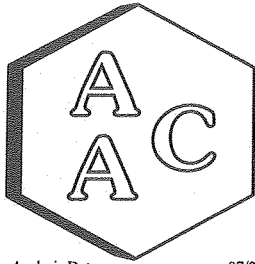

 Marcus Hueppe
 Laboratory Director



Amount

File Name	Formalalde	Acetalde	Acrolein	Acetone	Propional	Crotonal	Methacro	MEK & F	Benzalde	Valeralde	m-Toluol	Hexaldeh	Sample name
072913.0031.BND	0.1042	0.0503	NP	0.2906	0.0129	0.0304	0.0248	0.0503	0.0047	0.0254	0.0126	0.0129	130947-64738
072913.0032.BND	0.2853	0.0742	0.0024	0.1346	0.0203	0.0577	0.0362	0.0431	0.0119	0.0766	0.0326	0.0168	130947-64739
072913.0033.BND	0.3367	0.0902	0.0042	0.1223	0.0308	0.1261	0.0749	0.0572	0.0168	0.087	0.0479	0.0213	130947-64740
072913.0041.BND	0.0957	0.0624	NP	0.3092	0.0153	0.0186	0.022	0.0648	0.0048	0.0349	0.0132	0.0119	130947-64741

QA/QC Summary



Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report

TO-11A

HPLC Calibration Verification of the 06/11/2013 Calibration

Analysis Date : 07/29/2013
Analyst : HP/EG

Instrument ID : HPLC 01

Opening CCV

Standard Concentration (ug/mL)	Formaldehyde (ug/mL)	Acetaldehyde (ug/mL)	Acrolein (ug/mL)	Acetone (ug/mL)	Propionaldehyde (ug/mL)	Crotonaldehyde (ug/mL)	Methacrolein (ug/mL)	MEK & Butyraldehyde (ug/mL)	Benzaldehyde (ug/mL)	Valeraldehyde (ug/mL)	m-Tolualdehyde (ug/mL)	Hexaldehyde (ug/mL)
2.50	2.65	2.68	2.67	2.66	2.71	2.67	2.68	5.34	2.69	2.67	2.66	2.68
Accuracy (%)*	106	107	107	106	108	107	107	107	108	107	106	107

Continuing CCV

Standard Concentration (ug/mL)	Formaldehyde (ug/mL)	Acetaldehyde (ug/mL)	Acrolein (ug/mL)	Acetone (ug/mL)	Propionaldehyde (ug/mL)	Crotonaldehyde (ug/mL)	Methacrolein (ug/mL)	MEK & Butyraldehyde (ug/mL)	Benzaldehyde (ug/mL)	Valeraldehyde (ug/mL)	m-Tolualdehyde (ug/mL)	Hexaldehyde (ug/mL)
2.50	2.70	2.71	2.73	2.70	2.74	2.72	2.72	5.45	2.72	2.70	2.69	2.72
Accuracy (%)*	108	108	109	108	110	109	109	109	109	108	108	109

Continuing CCV

Standard Concentration (ug/mL)	Formaldehyde (ug/mL)	Acetaldehyde (ug/mL)	Acrolein (ug/mL)	Acetone (ug/mL)	Propionaldehyde (ug/mL)	Crotonaldehyde (ug/mL)	Methacrolein (ug/mL)	MEK & Butyraldehyde (ug/mL)	Benzaldehyde (ug/mL)	Valeraldehyde (ug/mL)	m-Tolualdehyde (ug/mL)	Hexaldehyde (ug/mL)
2.50	2.66	2.67	2.69	2.67	2.70	2.67	2.69	5.38	2.70	2.69	2.68	2.66
Accuracy (%)*	106	107	108	107	108	107	108	108	108	108	107	106

Continuing CCV

Standard Concentration (ug/mL)	Formaldehyde (ug/mL)	Acetaldehyde (ug/mL)	Acrolein (ug/mL)	Acetone (ug/mL)	Propionaldehyde (ug/mL)	Crotonaldehyde (ug/mL)	Methacrolein (ug/mL)	MEK & Butyraldehyde (ug/mL)	Benzaldehyde (ug/mL)	Valeraldehyde (ug/mL)	m-Tolualdehyde (ug/mL)	Hexaldehyde (ug/mL)
2.50	2.66	2.64	2.65	2.63	2.68	2.73	2.68	5.29	2.65	2.63	2.62	2.63
Accuracy (%)*	106	106	106	105	107	109	107	106	106	105	105	105

Continuing CCV

Standard Concentration (ug/mL)	Formaldehyde (ug/mL)	Acetaldehyde (ug/mL)	Acrolein (ug/mL)	Acetone (ug/mL)	Propionaldehyde (ug/mL)	Crotonaldehyde (ug/mL)	Methacrolein (ug/mL)	MEK & Butyraldehyde (ug/mL)	Benzaldehyde (ug/mL)	Valeraldehyde (ug/mL)	m-Tolualdehyde (ug/mL)	Hexaldehyde (ug/mL)
2.50	2.72	2.73	2.74	2.74	2.72	2.73	2.75	5.45	2.69	2.74	2.69	2.73
Accuracy (%)*	109	109	110	110	109	109	110	109	108	110	108	109

Closing CCV

Standard Concentration (ug/mL)	Formaldehyde (ug/mL)	Acetaldehyde (ug/mL)	Acrolein (ug/mL)	Acetone (ug/mL)	Propionaldehyde (ug/mL)	Crotonaldehyde (ug/mL)	Methacrolein (ug/mL)	MEK & Butyraldehyde (ug/mL)	Benzaldehyde (ug/mL)	Valeraldehyde (ug/mL)	m-Tolualdehyde (ug/mL)	Hexaldehyde (ug/mL)
2.50	2.63	2.64	2.68	2.63	2.64	2.65	2.64	5.33	2.61	2.66	2.63	2.65
Accuracy (%)*	105	106	107	105	106	106	106	107	104	106	105	106

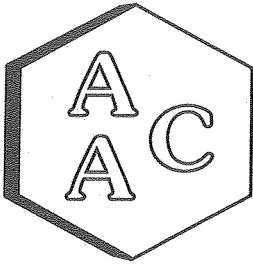
Second Source

Standard Concentration (ug/mL)	Formaldehyde (ug/mL)	Acetaldehyde (ug/mL)	Acrolein (ug/mL)	Acetone (ug/mL)	Propionaldehyde (ug/mL)	Crotonaldehyde (ug/mL)	Methacrolein (ug/mL)	MEK & Butyraldehyde (ug/mL)	Benzaldehyde (ug/mL)	Valeraldehyde (ug/mL)	m-Tolualdehyde (ug/mL)	Hexaldehyde (ug/mL)
2.50	2.73	2.73	2.70	2.73	2.67	2.71	2.74	5.49	2.69	2.74	2.70	2.74
Accuracy (%)*	109	109	108	109	107	108	110	110	108	110	108	110

*Must be 100 ± 10%


 Marcus Hueppe
 Laboratory Director





Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report
TO-11A
Laboratory Control Spike Analysis


Analysis Date : 07/29/2013

Analyst : HP/EG

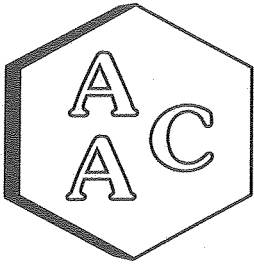
Instrument ID : HPLC 01

Analytes	Formaldehyde (ug/mL)	Acetaldehyde (ug/mL)	Acrolein (ug/mL)	Acetone (ug/mL)	Propionaldehyde (ug/mL)	Crotonaldehyde (ug/mL)	Methacrolein (ug/mL)	MEK & Butyraldehyde (ug/mL)	Benzaldehyde (ug/mL)	Valeraldehyde (ug/mL)	m-Tolualdehyde (ug/mL)	Hexaldehyde (ug/mL)
Laboratory Control Spike 1												
Sample Concentration (ug/mL)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Spike Concentration (ug/mL)	0.379	0.379	0.379	0.379	0.379	0.379	0.379	0.758	0.379	0.379	0.379	0.379
Spiked Sample Concentration (ug/mL)	0.397	0.375	0.387	0.412	0.385	0.377	0.419	0.741	0.381	0.407	0.385	0.385
Spike Recovery (%)*	105	99.0	102	109	102	99.6	111	97.9	101	107	102	102
Laboratory Control Spike 2												
Sample Concentration (ug/mL)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Spike Concentration (ug/mL)	0.379	0.379	0.379	0.379	0.379	0.379	0.379	0.758	0.379	0.379	0.379	0.379
Spiked Sample Concentration (ug/mL)	0.384	0.370	0.388	0.384	0.381	0.374	0.420	0.695	0.367	0.379	0.388	0.379
Spike Recovery (%)*	101	97.5	102	101	101	98.6	111	91.8	96.8	100	102	100

*Must be 100 ± 15%


 Marcus Hueppe
 Laboratory Director





Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report TO-11A Matrix Spike Analysis

Analysis Date : 07/29/2013


Analyst : HP/EG

Instrument ID : HPLC 01

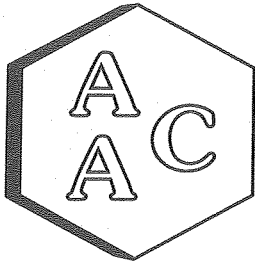
Analyses	Formaldehyde (ug/mL)	Acetaldehyde (ug/mL)	Acrolein (ug/mL)	Acetone (ug/mL)	Propionaldehyde (ug/mL)	Crotonaldehyde (ug/mL)	Methacrolein (ug/mL)	MEK & Butyraldehyde (ug/mL)	Benzaldehyde (ug/mL)	Valeraldehyde (ug/mL)	m-Tolualdehyde (ug/mL)	Hexaldehyde (ug/mL)
Sample ID 130935-64678												
Sample Concentration (ug/mL)	1.73	1.02	0.030	0.295	0.194	0.155	0.076	0.152	0.093	0.161	0.022	0.097
Spike Concentration (ug/mL)	1.25	1.25	1.25	1.25	1.25	1.25	1.25	2.50	1.25	1.25	1.25	1.25
Spiked Sample Concentration (ug/mL)	3.03	2.32	1.35	1.52	1.48	1.45	1.52	2.51	1.38	1.46	1.32	1.41
Duplicate Spiked Sample Concentration (ug/mL)	3.02	2.32	1.35	1.52	1.49	1.46	1.52	2.51	1.38	1.46	1.35	1.43
Spike Recovery (%)*	104	104	106	98.0	103	104	116	94.3	103	104	104	105
Duplicate Spike Recovery (%)*	103	104	106	98.0	104	104	116	94.3	103	104	106	107
RPD**	0.3	0.0	0.0	0.0	0.7	0.7	0.0	0.0	0.0	0.0	2.2	1.4
Sample ID 130947-64741												
Sample Concentration (ug/mL)	0.048	0.031	0.000	0.155	0.008	0.009	0.011	0.032	0.002	0.017	0.007	0.006
Spike Concentration (ug/mL)	1.25	1.25	1.25	1.25	1.25	1.25	1.25	2.50	1.25	1.25	1.25	1.25
Spiked Sample Concentration (ug/mL)	1.37	1.32	1.33	1.45	1.31	1.32	1.46	2.50	1.31	1.33	1.32	1.31
Duplicate Spiked Sample Concentration (ug/mL)	1.37	1.32	1.33	1.46	1.31	1.32	1.45	2.51	1.32	1.33	1.33	1.32
Spike Recovery (%)*	106	103	106	104	104	105	116	98.7	105	105	105	104
Duplicate Spike Recovery (%)*	106	103	106	104	104	105	115	99.1	105	105	106	105
RPD**	0.0	0.0	0.0	0.7	0.0	0.0	0.7	0.4	0.8	0.0	0.8	0.8

*Must be 100± 25%

** Must be ≤ 25%


 Marcus Hueppe
 Laboratory Director





Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report TO-11A Duplicate Analysis

Analysis Date : 07/29/2013
Analyst : HP/EG

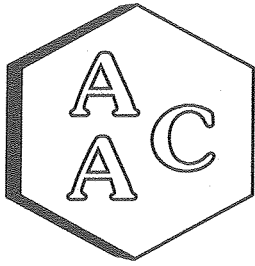
Instrument ID : HPLC 01

Analyte	Formaldehyde (ug/mL)	Acetaldehyde (ug/mL)	Acrolein (ug/mL)	Acetone (ug/mL)	Propionaldehyde (ug/mL)	Crotonaldehyde (ug/mL)	Methacrolein (ug/mL)	MEK & Butyraldehyde (ug/mL)	Benzaldehyde (ug/mL)	Valeraldehyde (ug/mL)	m- Tolualdehyde (ug/mL)	Hexaldehyde (ug/mL)
Sample ID 130935-64678												
Sample Concentration (ug/mL)	3.46	2.03	0.060	0.591	0.388	0.310	0.152	0.304	0.186	0.321	0.044	0.194
Duplicate Sample Concentration (ug/mL)	3.39	1.98	0.057	0.577	0.379	0.306	0.150	0.301	0.182	0.328	0.045	0.193
RPD**	1.9	2.8	4.3	2.3	2.2	1.3	1.5	1.2	2.1	2.0	2.0	0.6
Sample ID 130975-64924												
Sample Concentration (ug/mL)	<RL	<RL	ND	0.145	ND	ND	ND	0.056	<RL	<RL	0.034	<RL
Duplicate Sample Concentration (ug/mL)	<RL	<RL	ND	0.145	ND	ND	ND	0.060	<RL	<RL	0.032	<RL
RPD**	NA	NA	NA	0.3	NA	NA	NA	6.7	NA	NA	5.8	NA
Sample ID 130975-64923												
Sample Concentration (ug/mL)	0.118	0.075	<RL	0.307	<RL	0.025	<RL	0.085	<RL	0.032	0.037	<RL
Duplicate Sample Concentration (ug/mL)	0.114	0.072	<RL	0.300	<RL	0.025	<RL	0.086	<RL	0.034	0.037	<RL
RPD**	3.1	3.4	NA	2.5	NA	1.2	NA	2.0	NA	5.2	1.4	NA
Sample ID 130947-64741												
Sample Concentration (ug/mL)	0.096	0.062	ND	0.309	<RL	<RL	<RL	0.065	<RL	0.035	<RL	<RL
Duplicate Sample Concentration (ug/mL)	0.094	0.061	ND	0.306	<RL	<RL	<RL	0.068	<RL	0.035	<RL	<RL
RPD**	2.2	2.1	NA	1.0	NA	NA	NA	4.1	NA	1.4	NA	NA
Sample ID 130978-64929												
Sample Concentration (ug/mL)	0.038	0.057	ND	0.313	<RL	<RL	<RL	0.062	<RL	<RL	ND	<RL
Duplicate Sample Concentration (ug/mL)	0.037	0.056	ND	0.314	<RL	<RL	<RL	0.065	<RL	<RL	ND	<RL
RPD**	3.0	0.5	NA	0.2	NA	NA	NA	4.6	NA	NA	NA	NA

** Must be ≤ 20%
<RL=less than the Reporting Limit
ND = Not Detected
NA=Not Applicable


 Marcus Hueppe
 Laboratory Director





Atmospheric Analysis & Consulting, Inc.

Quality Control/Quality Assurance Report

TO-11A

System and Method Blank Analysis

Analysis Date : 07/29/2013
 Analyst : HP/EG

Instrument ID : HPLC 01

Analyte	Formaldehyde (ug/mL)	Acetaldehyde (ug/mL)	Acrolein (ug/mL)	Acetone (ug/mL)	Propionaldehyde (ug/mL)	Crotonaldehyde (ug/mL)	Methacrolein (ug/mL)	MEK & Butyraldehyde (ug/mL)	Benzaldehyde (ug/mL)	Valeraldehyde (ug/mL)	m-Tolualdehyde (ug/mL)	Hexaldehyde (ug/mL)
Opening Acetonitrile Blank	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
Method Blank	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
Continuing Acetonitrile Blank	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
Continuing Acetonitrile Blank	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
Continuing Acetonitrile Blank	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
Method Blank	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
Continuing Acetonitrile Blank	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
Closing Acetonitrile Blank	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL	<RL
Reporting Limit	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025

RL= Reporting Limit

<RL=less than the Reporting Limit

Marcus Hueppe

Marcus Hueppe
 Laboratory Director



Calibration Summary

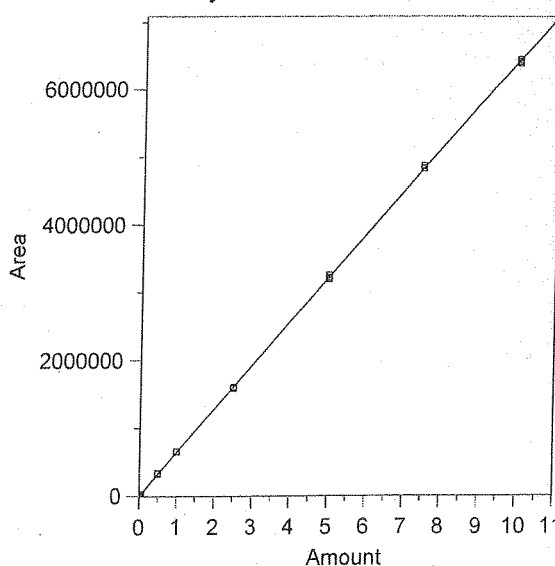
File Name: C:\Chromep perfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Version: 6
Creator: EG/HP
Description: EPA TO-11

External standard calibration
No injection volume correction
No sample weight correction
Area reject threshold: 1000
Reference peak area reject threshold: 1000
Amount units: ug/ml
No default component

Method of calculating data point averages: Equal weight for all updates
No calibration update report

All levels are normal data points.

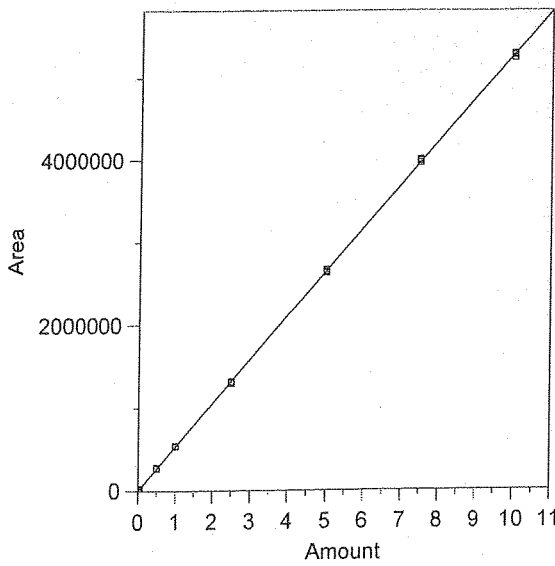
1 Formaldehyde



Expected retention time: 2.691 minutes
 Search window: 0.1 minutes
 No retention time reference component
 Group number: 0
 High alarm limit: 0
 Low alarm limit: 0
 Component constant: 0
 Single peak quantification by area
 Y = 643471.9 X + 0
 Linear fit with equal weighting, forced to origin
 Coefficient of determination: 0.9999344
 Average error: 1.932%
 Average CF: 653816.2
 RSD: 2.187%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	3408.358	681671.6	5.937	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0002	6/13/2013 9:05:08 AM
2	0.005	3325.732	665146.4	3.368	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0003	6/13/2013 9:05:23 AM
3	0.005	3366.37	673274.1	4.631	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0004	6/13/2013 7:21:34 AM
4	0.025	16194.19	647767.6	0.668	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0033	6/13/2013 7:22:04 AM
5	0.025	16179.21	647168.4	0.574	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0006	6/13/2013 7:22:28 AM
6	0.025	16232.13	649285.2	0.903	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0007	6/13/2013 7:22:52 AM
7	0.05	33956.52	679130.4	5.542	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0008	6/13/2013 7:23:11 AM
8	0.05	33691.46	673829.2	4.718	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0009	6/13/2013 7:23:32 AM
9	0.05	33082.47	661649.4	2.825	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0010	6/13/2013 7:23:49 AM
10	0.5	342894.1	685788.2	6.576	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0011.BND	6/13/2013 9:25:13 AM
11	0.5	326442.5	652885	1.463	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0012	6/13/2013 7:24:58 AM
12	0.5	328901	657802	2.227	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0013	6/13/2013 7:25:12 AM
13	1	659323.3	659323.3	2.463	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0014	6/13/2013 7:25:25 AM
14	1	652994.7	652994.7	1.480	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0015	6/13/2013 7:25:42 AM
15	1	653589.6	653589.6	1.572	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0016	6/13/2013 7:25:59 AM
16	2.5	1593441	637376.4	-0.947	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0017	6/13/2013 7:26:15 AM
17	2.5	1584858	633943.2	-1.481	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0018	6/13/2013 7:26:31 AM
18	2.5	1606654	642661.6	-0.126	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0019	6/13/2013 7:26:46 AM
19	5	3196329	639265.8	-0.654	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0020	6/13/2013 7:27:07 AM
20	5	3251038	650207.6	1.047	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0021	6/13/2013 7:27:30 AM
21	5	3213737	642747.4	-0.113	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0022	6/13/2013 7:27:52 AM
22	7.5	4829078	643877.1	0.063	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0023	6/13/2013 7:28:15 AM
23	7.5	4862793	648372.4	0.762	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0024	6/13/2013 7:28:35 AM
24	7.5	4865866	648782.1	0.825	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0025	6/13/2013 7:28:58 AM
25	10	6411879	641187.9	-0.355	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0026	6/13/2013 7:29:18 AM
26	10	6443770	644377	0.141	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0027	6/13/2013 7:29:40 AM
27	10	6389328	638932.8	-0.705	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0028	6/13/2013 7:29:57 AM

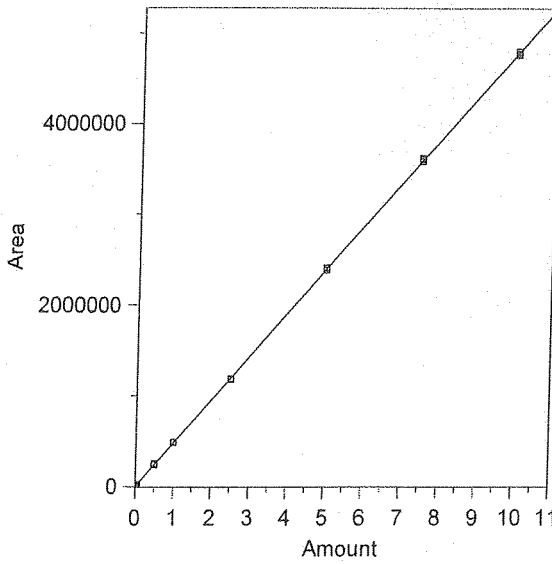
2 Acetaldehyde



Expected retention time: 3.293 minutes
 Search window: 0.3 minutes
 No retention time reference component
 Group number: 0
 High alarm limit: 0
 Low alarm limit: 0
 Component constant: 0
 Single peak quantification by area
 Y = 528411.2 X + 0
 Linear fit with equal weighting, forced to origin
 Coefficient of determination: 0.9999362
 Average error: 1.513%
 Average CF: 534461.4
 RSD: 1.856%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	2781.029	556205.8	5.260	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0002	6/13/2013 9:05:08 AM
2	0.005	2639.74	527948	-0.088	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0003	6/13/2013 9:05:23 AM
3	0.005	2713.861	542772.3	2.718	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0004	6/13/2013 7:21:34 AM
4	0.025	13324.46	532978.4	0.864	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0033	6/13/2013 7:22:04 AM
5	0.025	13196.94	527877.6	-0.101	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0006	6/13/2013 7:22:28 AM
6	0.025	13319.8	532792	0.829	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0007	6/13/2013 7:22:52 AM
7	0.05	27360.74	547214.8	3.559	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0008	6/13/2013 7:23:11 AM
8	0.05	27153.9	543078	2.776	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0009	6/13/2013 7:23:32 AM
9	0.05	26813.58	536271.6	1.488	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0010	6/13/2013 7:23:49 AM
10	0.5	281357.4	562714.8	6.492	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0011.BND	6/13/2013 9:25:13 AM
11	0.5	269068.5	538137	1.841	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0012	6/13/2013 7:24:58 AM
12	0.5	269886.8	539773.6	2.150	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0013	6/13/2013 7:25:12 AM
13	1	541849.3	541849.3	2.543	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0014	6/13/2013 7:25:25 AM
14	1	535548.3	535548.3	1.351	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0015	6/13/2013 7:25:42 AM
15	1	536037.3	536037.3	1.443	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0016	6/13/2013 7:25:59 AM
16	2.5	1304421	521768.4	-1.257	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0017	6/13/2013 7:26:15 AM
17	2.5	1298271	519308.4	-1.723	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0018	6/13/2013 7:26:31 AM
18	2.5	1316882	526752.8	-0.314	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0019	6/13/2013 7:26:46 AM
19	5	2629002	525800.4	-0.494	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0020	6/13/2013 7:27:07 AM
20	5	2663350	532670	0.806	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0021	6/13/2013 7:27:30 AM
21	5	2644688	528937.6	0.100	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0022	6/13/2013 7:27:52 AM
22	7.5	3962025	528270	-0.027	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0023	6/13/2013 7:28:15 AM
23	7.5	3985977	531463.6	0.578	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0024	6/13/2013 7:28:35 AM
24	7.5	4000077	533343.6	0.933	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0025	6/13/2013 7:28:58 AM
25	10	5275343	527534.3	-0.166	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0026	6/13/2013 7:29:18 AM
26	10	5292054	529205.4	0.150	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0027	6/13/2013 7:29:40 AM
27	10	5242042	524204.2	-0.796	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0028	6/13/2013 7:29:57 AM

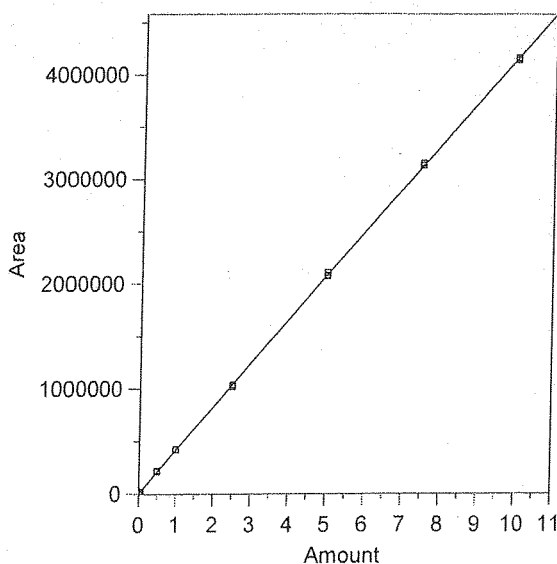
3 Acrolein



Expected retention time: 3.986 minutes
 Search window: 0.2 minutes
 No retention time reference component
 Group number: 0
 High alarm limit: 0
 Low alarm limit: 0
 Component constant: 0
 Single peak quantification by area
 Y = 479129.3 X + 0
 Linear fit with equal weighting, forced to origin
 Coefficient of determination: 0.9999534
 Average error: 1.520%
 Average CF: 483677.6
 RSD: 1.887%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	2333.751	466750.2	-2.584	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0002	6/13/2013 9:05:08 AM
2	0.005	2468.499	493699.8	3.041	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0003	6/13/2013 9:05:23 AM
3	0.005	2507.324	501464.8	4.662	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0004	6/13/2013 7:21:34 AM
4	0.025	11981.09	479243.6	0.024	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0033	6/13/2013 7:22:04 AM
5	0.025	12224.04	488961.6	2.052	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0006	6/13/2013 7:22:28 AM
6	0.025	11986.11	479444.4	0.066	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0007	6/13/2013 7:22:52 AM
7	0.05	24721.62	494432.4	3.194	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0008	6/13/2013 7:23:11 AM
8	0.05	24405.32	488106.4	1.874	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0009	6/13/2013 7:23:32 AM
9	0.05	24448.33	488966.6	2.053	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0010	6/13/2013 7:23:49 AM
10	0.5	254413	508826	6.198	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0011.BND	6/13/2013 9:25:13 AM
11	0.5	242138.8	484277.6	1.075	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0012	6/13/2013 7:24:58 AM
12	0.5	244413.3	488826.6	2.024	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0013	6/13/2013 7:25:12 AM
13	1	490244.2	490244.2	2.320	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0014	6/13/2013 7:25:25 AM
14	1	484969.3	484969.3	1.219	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0015	6/13/2013 7:25:42 AM
15	1	484927.5	484927.5	1.210	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0016	6/13/2013 7:25:59 AM
16	2.5	1183948	473579.2	-1.158	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0017	6/13/2013 7:26:15 AM
17	2.5	1176976	470790.4	-1.740	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0018	6/13/2013 7:26:31 AM
18	2.5	1188060	475224	-0.815	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0019	6/13/2013 7:26:46 AM
19	5	2384550	476910	-0.463	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0020	6/13/2013 7:27:07 AM
20	5	2408812	481762.4	0.550	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0021	6/13/2013 7:27:30 AM
21	5	2403943	480788.6	0.346	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0022	6/13/2013 7:27:52 AM
22	7.5	3586781	478237.5	-0.186	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0023	6/13/2013 7:28:15 AM
23	7.5	3607897	481052.9	0.401	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0024	6/13/2013 7:28:35 AM
24	7.5	3621213	482828.4	0.772	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0025	6/13/2013 7:28:58 AM
25	10	4781989	478198.9	-0.194	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0026	6/13/2013 7:29:18 AM
26	10	4803733	480373.3	0.260	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0027	6/13/2013 7:29:40 AM
27	10	4764090	476409	-0.568	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0028	6/13/2013 7:29:57 AM

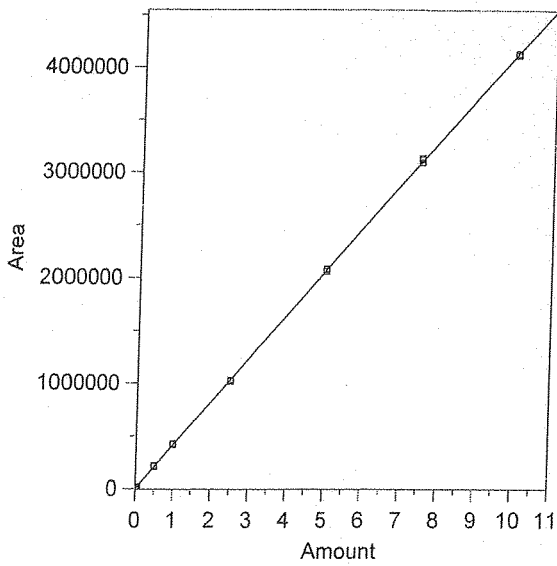
4 Acetone



Expected retention time: 4.179 minutes
 Search window: 0.4 minutes
 No retention time reference component
 Group number: 0
 High alarm limit: 0
 Low alarm limit: 0
 Component constant: 0
 Single peak quantification by area
 Y = 416415.2 X + 0
 Linear fit with equal weighting, forced to origin
 Coefficient of determination: 0.9999405
 Average error: 1.960%
 Average CF: 422955.5
 RSD: 2.274%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	2238.368	447673.6	7.507	C:\Chromep perfect 2\Data\HPLC #1\2013\06\11\13(cal)\061113.0002	6/13/2013 9:05:08 AM
2	0.005	2171.32	434264	4.286	C:\Chromep perfect 2\Data\HPLC #1\2013\06\11\13(cal)\061113.0003	6/13/2013 9:05:23 AM
3	0.005	2130.784	426156.8	2.339	C:\Chromep perfect 2\Data\HPLC #1\2013\06\11\13(cal)\061113.0004	6/13/2013 7:21:34 AM
4	0.025	10615.52	424620.8	1.971	C:\Chromep perfect 2\Data\HPLC #1\2013\06\11\13(cal)\061113.0033	6/13/2013 7:22:04 AM
5	0.025	10418.99	416759.6	0.083	C:\Chromep perfect 2\Data\HPLC #1\2013\06\11\13(cal)\061113.0006	6/13/2013 7:22:28 AM
6	0.025	10743.64	429745.6	3.201	C:\Chromep perfect 2\Data\HPLC #1\2013\06\11\13(cal)\061113.0007	6/13/2013 7:22:52 AM
7	0.05	21509.85	430197	3.310	C:\Chromep perfect 2\Data\HPLC #1\2013\06\11\13(cal)\061113.0008	6/13/2013 7:23:11 AM
8	0.05	21494.17	429883.4	3.234	C:\Chromep perfect 2\Data\HPLC #1\2013\06\11\13(cal)\061113.0009	6/13/2013 7:23:32 AM
9	0.05	21202.1	424042	1.832	C:\Chromep perfect 2\Data\HPLC #1\2013\06\11\13(cal)\061113.0010	6/13/2013 7:23:49 AM
10	0.5	223642.5	447285	7.413	C:\Chromep perfect 2\Data\HPLC #1\2013\06\11\13(cal)\061113.0011	6/13/2013 9:25:13 AM
11	0.5	212278.1	424556.2	1.955	C:\Chromep perfect 2\Data\HPLC #1\2013\06\11\13(cal)\061113.0012	6/13/2013 7:24:58 AM
12	0.5	214246.7	428493.4	2.901	C:\Chromep perfect 2\Data\HPLC #1\2013\06\11\13(cal)\061113.0013	6/13/2013 7:25:12 AM
13	1	426914.8	426914.8	2.521	C:\Chromep perfect 2\Data\HPLC #1\2013\06\11\13(cal)\061113.0014	6/13/2013 7:25:25 AM
14	1	422587.8	422587.8	1.482	C:\Chromep perfect 2\Data\HPLC #1\2013\06\11\13(cal)\061113.0015	6/13/2013 7:25:42 AM
15	1	420868.8	420868.8	1.070	C:\Chromep perfect 2\Data\HPLC #1\2013\06\11\13(cal)\061113.0016	6/13/2013 7:25:59 AM
16	2.5	1025289	410115.6	-1.513	C:\Chromep perfect 2\Data\HPLC #1\2013\06\11\13(cal)\061113.0017	6/13/2013 7:26:15 AM
17	2.5	1019650	407860	-2.054	C:\Chromep perfect 2\Data\HPLC #1\2013\06\11\13(cal)\061113.0018	6/13/2013 7:26:31 AM
18	2.5	1038209	415283.6	-0.272	C:\Chromep perfect 2\Data\HPLC #1\2013\06\11\13(cal)\061113.0019	6/13/2013 7:26:46 AM
19	5	2070625	414125	-0.550	C:\Chromep perfect 2\Data\HPLC #1\2013\06\11\13(cal)\061113.0020	6/13/2013 7:27:07 AM
20	5	2103557	420711.4	1.032	C:\Chromep perfect 2\Data\HPLC #1\2013\06\11\13(cal)\061113.0021	6/13/2013 7:27:30 AM
21	5	2080934	416186.8	-0.055	C:\Chromep perfect 2\Data\HPLC #1\2013\06\11\13(cal)\061113.0022	6/13/2013 7:27:52 AM
22	7.5	3130817	417442.3	0.247	C:\Chromep perfect 2\Data\HPLC #1\2013\06\11\13(cal)\061113.0023	6/13/2013 7:28:15 AM
23	7.5	3151942	420258.9	0.923	C:\Chromep perfect 2\Data\HPLC #1\2013\06\11\13(cal)\061113.0024	6/13/2013 7:28:35 AM
24	7.5	3133901	417853.5	0.345	C:\Chromep perfect 2\Data\HPLC #1\2013\06\11\13(cal)\061113.0025	6/13/2013 7:28:58 AM
25	10	4164627	416462.7	0.011	C:\Chromep perfect 2\Data\HPLC #1\2013\06\11\13(cal)\061113.0026	6/13/2013 7:29:18 AM
26	10	4152960	415296	-0.269	C:\Chromep perfect 2\Data\HPLC #1\2013\06\11\13(cal)\061113.0027	6/13/2013 7:29:40 AM
27	10	4141528	414152.8	-0.543	C:\Chromep perfect 2\Data\HPLC #1\2013\06\11\13(cal)\061113.0028	6/13/2013 7:29:57 AM

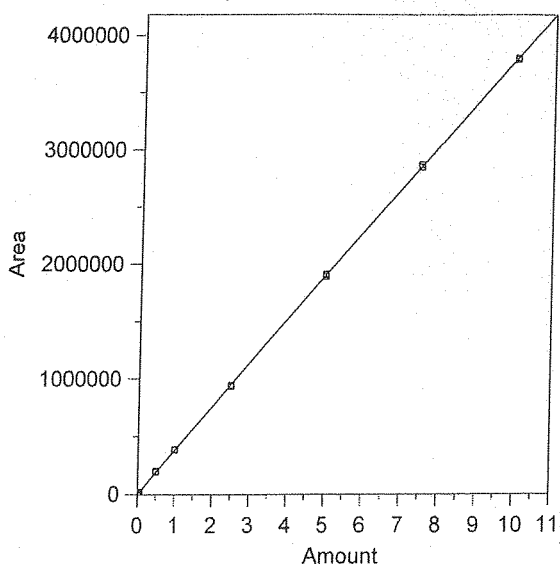
5 Propionaldehyde



Expected retention time: 4.45 minutes
 Search window: 0.5 minutes
 No retention time reference component
 Group number: 0
 High alarm limit: 0
 Low alarm limit: 0
 Component constant: 0
 Single peak quantification by area
 Y = 413491.1 X + 0
 Linear fit with equal weighting, forced to origin
 Coefficient of determination: 0.9999471
 Average error: 1.596%
 Average CF: 416900.7
 RSD: 1.885%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	2017.78	403556	-2.403	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0002	6/13/2013 9:05:08 AM
2	0.005	2120.531	424106.2	2.567	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0003	6/13/2013 9:05:23 AM
3	0.005	2110.294	422058.8	2.072	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0004	6/13/2013 7:21:34 AM
4	0.025	10270.25	410810	-0.648	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0033	6/13/2013 7:22:04 AM
5	0.025	10463.54	418541.6	1.221	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0006	6/13/2013 7:22:28 AM
6	0.025	10129.01	405160.4	-2.015	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0007	6/13/2013 7:22:52 AM
7	0.05	21474.82	429496.4	3.871	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0008	6/13/2013 7:23:11 AM
8	0.05	21155.03	423100.6	2.324	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0009	6/13/2013 7:23:32 AM
9	0.05	21206.9	424138	2.575	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0010	6/13/2013 7:23:49 AM
10	0.5	218583.6	437167.2	5.726	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0011.BND	6/13/2013 9:25:13 AM
11	0.5	211193.6	422387.2	2.151	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0012	6/13/2013 7:24:58 AM
12	0.5	211752.1	423504.2	2.422	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0013	6/13/2013 7:25:12 AM
13	1	425236.3	425236.3	2.841	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0014	6/13/2013 7:25:25 AM
14	1	416753.3	416753.3	0.789	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0015	6/13/2013 7:25:42 AM
15	1	420042.3	420042.3	1.584	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0016	6/13/2013 7:25:59 AM
16	2.5	1017464	406985.6	-1.573	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0017	6/13/2013 7:26:15 AM
17	2.5	1016426	406570.4	-1.674	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0018	6/13/2013 7:26:31 AM
18	2.5	1025583	410233.2	-0.788	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0019	6/13/2013 7:26:46 AM
19	5	2060419	412083.8	-0.340	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0020	6/13/2013 7:27:07 AM
20	5	2076059	415211.8	0.416	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0021	6/13/2013 7:27:30 AM
21	5	2079987	415997.4	0.606	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0022	6/13/2013 7:27:52 AM
22	7.5	3092180	412290.7	-0.290	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0023	6/13/2013 7:28:15 AM
23	7.5	3130391	417385.5	0.942	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0024	6/13/2013 7:28:35 AM
24	7.5	3118990	415865.3	0.574	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0025	6/13/2013 7:28:58 AM
25	10	4134994	413499.4	0.002	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0026	6/13/2013 7:29:18 AM
26	10	4125538	412553.8	-0.227	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0027	6/13/2013 7:29:40 AM
27	10	4115842	411584.2	-0.461	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0028	6/13/2013 7:29:57 AM

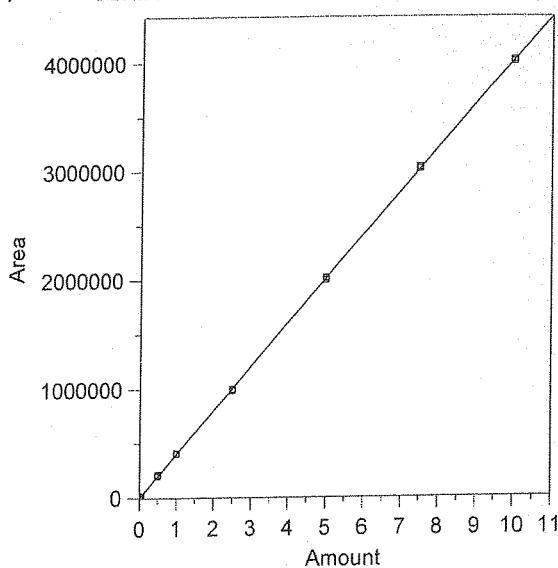
6 Crotonaldehyde



Expected retention time: 5.222 minutes
 Search window: 0.5 minutes
 No retention time reference component
 Group number: 0
 High alarm limit: 0
 Low alarm limit: 0
 Component constant: 0
 Single peak quantification by area
 $Y = 380159.3 X + 0$
 Linear fit with equal weighting, forced to origin
 Coefficient of determination: 0.9999585
 Average error: 1.483%
 Average CF: 383492.5
 RSD: 2.008%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	1954.227	390845.4	2.811	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0002	6/13/2013 9:05:08 AM
2	0.005	1853.591	370718.2	-2.483	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0003	6/13/2013 9:05:23 AM
3	0.005	2006.267	401253.4	5.549	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0004	6/13/2013 7:21:34 AM
4	0.025	9500.876	380035	-0.033	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0033	6/13/2013 7:22:04 AM
5	0.025	9677.464	387098.6	1.825	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0006	6/13/2013 7:22:28 AM
6	0.025	9491.502	379660.1	-0.131	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0007	6/13/2013 7:22:52 AM
7	0.05	19612.18	392243.6	3.179	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0008	6/13/2013 7:23:11 AM
8	0.05	19377.38	387547.6	1.943	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0009	6/13/2013 7:23:32 AM
9	0.05	19062.43	381248.6	0.287	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0010	6/13/2013 7:23:49 AM
10	0.5	202454.9	404909.8	6.511	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0011.BND	6/13/2013 9:25:13 AM
11	0.5	192705	385410	1.381	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0012	6/13/2013 7:24:58 AM
12	0.5	193772.2	387544.4	1.943	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0013	6/13/2013 7:25:12 AM
13	1	389857.3	389857.3	2.551	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0014	6/13/2013 7:25:25 AM
14	1	384117.9	384117.9	1.041	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0015	6/13/2013 7:25:42 AM
15	1	383544.6	383544.6	0.890	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0016	6/13/2013 7:25:59 AM
16	2.5	931914.6	372765.8	-1.945	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0017	6/13/2013 7:26:15 AM
17	2.5	933845.9	373538.3	-1.742	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0018	6/13/2013 7:26:31 AM
18	2.5	943212	377284.8	-0.756	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0019	6/13/2013 7:26:46 AM
19	5	1892096	378419.2	-0.458	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0020	6/13/2013 7:27:07 AM
20	5	1909513	381902.6	0.459	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0021	6/13/2013 7:27:30 AM
21	5	1905140	381028	0.229	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0022	6/13/2013 7:27:52 AM
22	7.5	2846489	379531.9	-0.165	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0023	6/13/2013 7:28:15 AM
23	7.5	2869201	382560.1	0.632	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0024	6/13/2013 7:28:35 AM
24	7.5	2868674	382489.9	0.613	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0025	6/13/2013 7:28:58 AM
25	10	3796762	379676.2	-0.127	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0026	6/13/2013 7:29:18 AM
26	10	3802364	380236.4	0.020	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0027	6/13/2013 7:29:40 AM
27	10	3788300	378830	-0.350	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0028	6/13/2013 7:29:57 AM

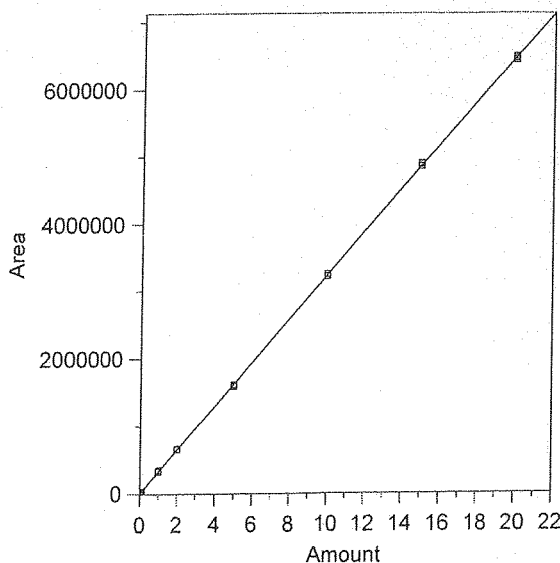
7 Methacrolein



Expected retention time: 5.582 minutes
 Search window: 0.5 minutes
 No retention time reference component
 Group number: 0
 High alarm limit: 0
 Low alarm limit: 0
 Component constant: 0
 Single peak quantification by area
 Y = 402103.5 X + 0
 Linear fit with equal weighting, forced to origin
 Coefficient of determination: 0.9999555
 Average error: 1.593%
 Average CF: 405803.3
 RSD: 2.245%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	2046.606	409321.2	1.795	C:\Chromep\perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0002	6/13/2013 9:05:08 AM
2	0.005	1941.76	388352	-3.420	C:\Chromep\perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0003	6/13/2013 9:05:23 AM
3	0.005	2152.434	430486.8	7.059	C:\Chromep\perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0004	6/13/2013 7:21:34 AM
4	0.025	10133.4	405336	0.804	C:\Chromep\perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0033	6/13/2013 7:22:04 AM
5	0.025	10129.37	405174.8	0.764	C:\Chromep\perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0006	6/13/2013 7:22:28 AM
6	0.025	10215.62	408624.8	1.622	C:\Chromep\perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0007	6/13/2013 7:22:52 AM
7	0.05	20786.57	415731.4	3.389	C:\Chromep\perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0008	6/13/2013 7:23:11 AM
8	0.05	20543.71	410874.2	2.181	C:\Chromep\perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0009	6/13/2013 7:23:32 AM
9	0.05	20057.09	401141.8	-0.239	C:\Chromep\perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0010	6/13/2013 7:23:49 AM
10	0.5	215228.8	430457.6	7.051	C:\Chromep\perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0011.BND	6/13/2013 9:25:13 AM
11	0.5	202696.3	405392.6	0.818	C:\Chromep\perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0012	6/13/2013 7:24:58 AM
12	0.5	205546.4	411092.8	2.236	C:\Chromep\perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0013	6/13/2013 7:25:12 AM
13	1	411542.4	411542.4	2.347	C:\Chromep\perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0014	6/13/2013 7:25:25 AM
14	1	406241.6	406241.6	1.029	C:\Chromep\perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0015	6/13/2013 7:25:42 AM
15	1	405954.8	405954.8	0.958	C:\Chromep\perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0016	6/13/2013 7:25:59 AM
16	2.5	988074.2	395229.7	-1.709	C:\Chromep\perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0017	6/13/2013 7:26:15 AM
17	2.5	985936.9	394374.8	-1.922	C:\Chromep\perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0018	6/13/2013 7:26:31 AM
18	2.5	1000575	400230	-0.466	C:\Chromep\perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0019	6/13/2013 7:26:46 AM
19	5	1996175	399235	-0.713	C:\Chromep\perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0020	6/13/2013 7:27:07 AM
20	5	2017778	403555.6	0.361	C:\Chromep\perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0021	6/13/2013 7:27:30 AM
21	5	2011258	402251.6	0.037	C:\Chromep\perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0022	6/13/2013 7:27:52 AM
22	7.5	3018119	402415.9	0.078	C:\Chromep\perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0023	6/13/2013 7:28:15 AM
23	7.5	3035201	404693.5	0.644	C:\Chromep\perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0024	6/13/2013 7:28:35 AM
24	7.5	3035088	404678.4	0.640	C:\Chromep\perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0025	6/13/2013 7:28:58 AM
25	10	4025485	402548.5	0.111	C:\Chromep\perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0026	6/13/2013 7:29:18 AM
26	10	4010411	401041.1	-0.264	C:\Chromep\perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0027	6/13/2013 7:29:40 AM
27	10	4007106	400710.6	-0.346	C:\Chromep\perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0028	6/13/2013 7:29:57 AM

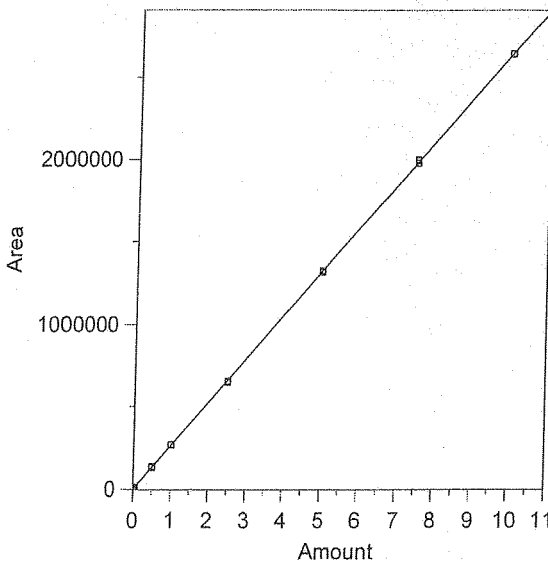
8 MEK & Butyraldehyde



Expected retention time: 5.966 minutes
 Search window: 0.5 minutes
 No retention time reference component
 Group number: 0
 High alarm limit: 0
 Low alarm limit: 0
 Component constant: 0
 Single peak quantification by area
 Y = 323725.3 X + 0
 Linear fit with equal weighting, forced to origin
 Coefficient of determination: 0.9999455
 Average error: 1.583%
 Average CF: 327616.8
 RSD: 1.902%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.01	3295.589	329558.9	1.802	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0002	6/13/2013 9:05:08 AM
2	0.01	3245.783	324578.3	0.264	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0003	6/13/2013 9:05:23 AM
3	0.01	3411.926	341192.6	5.396	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0004	6/13/2013 7:21:34 AM
4	0.05	16421.55	328431	1.454	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0033	6/13/2013 7:22:04 AM
5	0.05	16468.17	329363.4	1.742	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0006	6/13/2013 7:22:28 AM
6	0.05	16425.41	328508.2	1.477	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0007	6/13/2013 7:22:52 AM
7	0.1	33572.15	335721.5	3.706	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0008	6/13/2013 7:23:11 AM
8	0.1	33048.58	330485.8	2.088	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0009	6/13/2013 7:23:32 AM
9	0.1	32802.24	328022.4	1.327	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0010	6/13/2013 7:23:49 AM
10	1	346679.9	346679.9	7.091	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0011.BND	6/13/2013 9:25:13 AM
11	1	328309.7	328309.7	1.416	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0012	6/13/2013 7:24:58 AM
12	1	331244	331244	2.323	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0013	6/13/2013 7:25:12 AM
13	2	664752.6	332376.3	2.672	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0014	6/13/2013 7:25:25 AM
14	2	656210.7	328105.3	1.353	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0015	6/13/2013 7:25:42 AM
15	2	654874.3	327437.2	1.147	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0016	6/13/2013 7:25:59 AM
16	5	1594650	318930	-1.481	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0017	6/13/2013 7:26:15 AM
17	5	1588729	317745.8	-1.847	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0018	6/13/2013 7:26:31 AM
18	5	1611625	322325	-0.433	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0019	6/13/2013 7:26:46 AM
19	10	3222726	322272.6	-0.449	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0020	6/13/2013 7:27:07 AM
20	10	3250978	325097.8	0.424	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0021	6/13/2013 7:27:30 AM
21	10	3247845	324784.5	0.327	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0022	6/13/2013 7:27:52 AM
22	15	4851557	323437.1	-0.089	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0023	6/13/2013 7:28:15 AM
23	15	4886541	325769.4	0.631	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0024	6/13/2013 7:28:35 AM
24	15	4893723	326248.2	0.779	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0025	6/13/2013 7:28:58 AM
25	20	6462091	323104.6	-0.192	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0026	6/13/2013 7:29:18 AM
26	20	6486439	324321.9	0.184	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0027	6/13/2013 7:29:40 AM
27	20	6432050	321602.5	-0.656	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0028	6/13/2013 7:29:57 AM

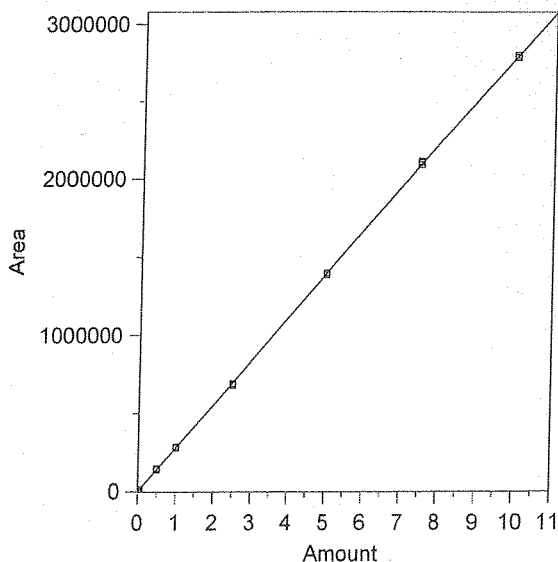
9 Benzaldehyde



Expected retention time: 6.375 minutes
 Search window: 0.5 minutes
 No retention time reference component
 Group number: 0
 High alarm limit: 0
 Low alarm limit: 0
 Component constant: 0
 Single peak quantification by area
 $Y = 264532.8 X + 0$
 Linear fit with equal weighting, forced to origin
 Coefficient of determination: 0.9999563
 Average error: 1.328%
 Average CF: 264682.8
 RSD: 1.937%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	1271.628	254325.6	-3.859	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0002	6/13/2013 9:05:08 AM
2	0.005	1273.601	254720.2	-3.709	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0003	6/13/2013 9:05:23 AM
3	0.005	1382.946	276589.2	4.558	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0004	6/13/2013 7:21:34 AM
4	0.025	6506.057	260242.3	-1.622	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0033	6/13/2013 7:22:04 AM
5	0.025	6640.884	265635.3	0.417	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0006	6/13/2013 7:22:28 AM
6	0.025	6582.594	263303.8	-0.465	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0007	6/13/2013 7:22:52 AM
7	0.05	13464.09	269281.8	1.795	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0008	6/13/2013 7:23:11 AM
8	0.05	13243.82	264876.4	0.130	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0009	6/13/2013 7:23:32 AM
9	0.05	13138.29	262765.8	-0.668	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0010	6/13/2013 7:23:49 AM
10	0.5	138265.6	276531.2	4.536	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0011.BND	6/13/2013 9:25:13 AM
11	0.5	131281	262562	-0.745	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0012	6/13/2013 7:24:58 AM
12	0.5	134626.8	269253.6	1.785	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0013	6/13/2013 7:25:12 AM
13	1	270957.1	270957.1	2.429	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0014	6/13/2013 7:25:25 AM
14	1	266032	266032	0.567	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0015	6/13/2013 7:25:42 AM
15	1	266541.5	266541.5	0.759	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0016	6/13/2013 7:25:59 AM
16	2.5	647530.3	259012.1	-2.087	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0017	6/13/2013 7:26:15 AM
17	2.5	648400.6	259360.3	-1.955	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0018	6/13/2013 7:26:31 AM
18	2.5	655172.9	262069.2	-0.931	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0019	6/13/2013 7:26:46 AM
19	5	1315721	263144.2	-0.525	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0020	6/13/2013 7:27:07 AM
20	5	1324105	264821	0.109	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0021	6/13/2013 7:27:30 AM
21	5	1325810	265162	0.238	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0022	6/13/2013 7:27:52 AM
22	7.5	1978244	263765.9	-0.290	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0023	6/13/2013 7:28:15 AM
23	7.5	2001675	266890	0.891	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0024	6/13/2013 7:28:35 AM
24	7.5	1993485	265798	0.478	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0025	6/13/2013 7:28:58 AM
25	10	2645002	264500.2	-0.012	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0026	6/13/2013 7:29:18 AM
26	10	2641466	264146.6	-0.146	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0027	6/13/2013 7:29:40 AM
27	10	2641496	264149.6	-0.145	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0028	6/13/2013 7:29:57 AM

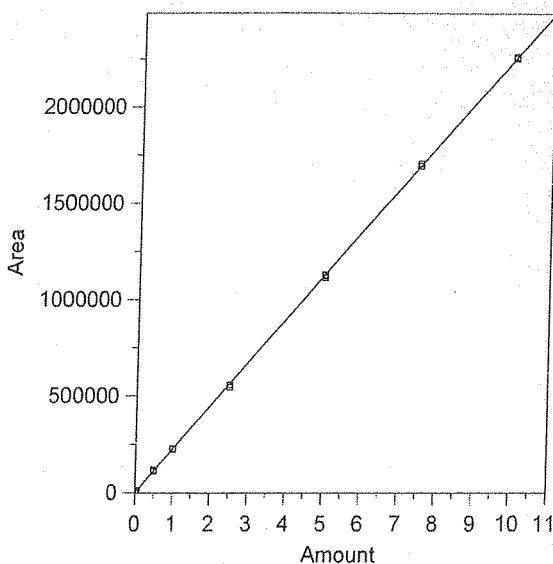
10 Valeraldehyde



Expected retention time: 8.329 minutes
 Search window: 0.5 minutes
 No retention time reference component
 Group number: 0
 High alarm limit: 0
 Low alarm limit: 0
 Component constant: 0
 Single peak quantification by area
 Y = 279178.6 X + 0
 Linear fit with equal weighting, forced to origin
 Coefficient of determination: 0.9999412
 Average error: 1.679%
 Average CF: 282346.4
 RSD: 2.394%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	1484.718	296943.6	6.363	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0002	6/13/2013 9:05:08 AM
2	0.005	1440.975	288195	3.230	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0003	6/13/2013 9:05:23 AM
3	0.005	1478.778	295755.6	5.938	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0004	6/13/2013 7:21:34 AM
4	0.025	6975.488	279019.5	-0.057	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0033	6/13/2013 7:22:04 AM
5	0.025	6979.106	279164.2	-0.005	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0006	6/13/2013 7:22:28 AM
6	0.025	7027.2	281088	0.684	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0007	6/13/2013 7:22:52 AM
7	0.05	14633.92	292678.4	4.836	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0008	6/13/2013 7:23:11 AM
8	0.05	13928.58	278571.6	-0.217	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0009	6/13/2013 7:23:32 AM
9	0.05	14125.8	282516	1.195	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0010	6/13/2013 7:23:49 AM
10	0.5	149315.6	298631.2	6.968	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0011.BND	6/13/2013 9:25:13 AM
11	0.5	140804	281608	0.870	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0012	6/13/2013 7:24:58 AM
12	0.5	142885.6	285771.2	2.361	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0013	6/13/2013 7:25:12 AM
13	1	286175.2	286175.2	2.506	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0014	6/13/2013 7:25:25 AM
14	1	280760.4	280760.4	0.567	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0015	6/13/2013 7:25:42 AM
15	1	280828.8	280828.8	0.591	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0016	6/13/2013 7:25:59 AM
16	2.5	681125.6	272450.3	-2.410	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0017	6/13/2013 7:26:15 AM
17	2.5	681786.7	272714.7	-2.315	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0018	6/13/2013 7:26:31 AM
18	2.5	691632.1	276652.8	-0.905	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0019	6/13/2013 7:26:46 AM
19	5	1386088	277217.6	-0.702	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0020	6/13/2013 7:27:07 AM
20	5	1398275	279655	0.171	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0021	6/13/2013 7:27:30 AM
21	5	1395245	279049	-0.046	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0022	6/13/2013 7:27:52 AM
22	7.5	2091460	278861.3	-0.114	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0023	6/13/2013 7:28:15 AM
23	7.5	2112053	281607.1	0.870	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0024	6/13/2013 7:28:35 AM
24	7.5	2105825	280776.7	0.572	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0025	6/13/2013 7:28:58 AM
25	10	2799263	279926.3	0.268	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0026	6/13/2013 7:29:18 AM
26	10	2783838	278383.8	-0.285	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0027	6/13/2013 7:29:40 AM
27	10	2783513	278351.3	-0.296	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0028	6/13/2013 7:29:57 AM

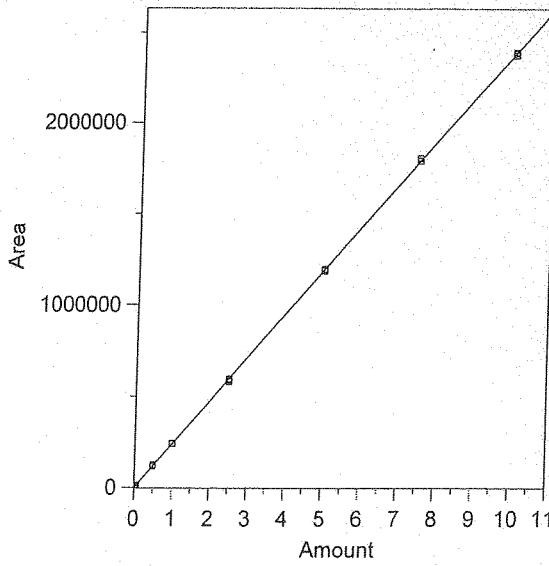
11 m-Tolualdehyde



Expected retention time: 8.864 minutes
 Search window: 0.5 minutes
 No retention time reference component
 Group number: 0
 High alarm limit: 0
 Low alarm limit: 0
 Component constant: 0
 Single peak quantification by area
 Y = 225671.2 X + 0
 Linear fit with equal weighting, forced to origin
 Coefficient of determination: 0.9999189
 Average error: 1.845%
 Average CF: 225055.9
 RSD: 2.753%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	1205.651	241130.2	6.850	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0002	6/13/2013 9:05:08 AM
2	0.005	1133.419	226683.8	0.449	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0003	6/13/2013 9:05:23 AM
3	0.005	1115.328	223065.6	-1.155	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0004	6/13/2013 7:21:34 AM
4	0.025	5301.758	212070.3	-6.027	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0033	6/13/2013 7:22:04 AM
5	0.025	5574.778	222991.1	-1.188	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0006	6/13/2013 7:22:28 AM
6	0.025	5291.765	211670.6	-6.204	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0007	6/13/2013 7:22:52 AM
7	0.05	11500.01	230000.2	1.918	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0008	6/13/2013 7:23:11 AM
8	0.05	10974.64	219492.8	-2.738	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0009	6/13/2013 7:23:32 AM
9	0.05	11585.74	231714.8	2.678	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0010	6/13/2013 7:23:49 AM
10	0.5	118273.4	236546.8	4.819	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0011	6/13/2013 9:25:13 AM
11	0.5	112401.6	224803.2	-0.385	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0012	6/13/2013 7:24:58 AM
12	0.5	114850.5	229701	1.786	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0013	6/13/2013 7:25:12 AM
13	1	228083.9	228083.9	1.069	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0014	6/13/2013 7:25:25 AM
14	1	224659.6	224659.6	-0.448	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0015	6/13/2013 7:25:42 AM
15	1	224437.7	224437.7	-0.547	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0016	6/13/2013 7:25:59 AM
16	2.5	545930.8	218372.3	-3.234	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0017	6/13/2013 7:26:15 AM
17	2.5	545333.1	218133.3	-3.340	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0018	6/13/2013 7:26:31 AM
18	2.5	555975.6	222390.3	-1.454	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0019	6/13/2013 7:26:46 AM
19	5	1112742	222548.4	-1.384	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0020	6/13/2013 7:27:07 AM
20	5	1127437	225487.4	-0.081	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0021	6/13/2013 7:27:30 AM
21	5	1124909	224981.8	-0.305	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0022	6/13/2013 7:27:52 AM
22	7.5	1693020	225736	0.029	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0023	6/13/2013 7:28:15 AM
23	7.5	1703770	227169.3	0.664	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0024	6/13/2013 7:28:35 AM
24	7.5	1705210	227361.3	0.749	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0025	6/13/2013 7:28:58 AM
25	10	2261498	226149.8	0.212	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0026	6/13/2013 7:29:18 AM
26	10	2256941	225694.1	0.010	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0027	6/13/2013 7:29:40 AM
27	10	2254343	225434.3	-0.105	C:\Chromperfect 2\Data\HPLC #1\2013\061113(cal)\061113.0028	6/13/2013 7:29:57 AM

12 Hexaldehyde



Expected retention time: 11.919 minutes
 Search window: 0.5 minutes
 No retention time reference component
 Group number: 0
 High alarm limit: 0
 Low alarm limit: 0
 Component constant: 0

Single peak quantification by area

$Y = 238926 X + 0$

Linear fit with equal weighting, forced to origin

Coefficient of determination: 0.999934
 Average error: 1.592%
 Average CF: 241305.9
 RSD: 2.114%

Level	Amount	Response	Cal Factor	Error, %	Source	Date and time
1	0.005	1202.478	240495.6	0.657	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0002	6/13/2013 9:05:08 AM
2	0.005	1239.538	247907.6	3.759	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0003	6/13/2013 9:05:23 AM
3	0.005	1271.401	254280.2	6.426	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0004	6/13/2013 7:21:34 AM
4	0.025	5947.313	237892.5	-0.433	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0033	6/13/2013 7:22:04 AM
5	0.025	6068.35	242734	1.594	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0006	6/13/2013 7:22:28 AM
6	0.025	5933.474	237339	-0.664	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0007	6/13/2013 7:22:52 AM
7	0.05	12531.54	250630.8	4.899	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0008	6/13/2013 7:23:11 AM
8	0.05	12251.32	245026.4	2.553	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0009	6/13/2013 7:23:32 AM
9	0.05	12152.7	243054	1.728	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0010	6/13/2013 7:23:49 AM
10	0.5	126196	252392	5.636	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0011.BND	6/13/2013 9:25:13 AM
11	0.5	120634.2	241268.4	0.980	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0012	6/13/2013 7:24:58 AM
12	0.5	121148.8	242297.6	1.411	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0013	6/13/2013 7:25:12 AM
13	1	242571.7	242571.7	1.526	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0014	6/13/2013 7:25:25 AM
14	1	240813.4	240813.4	0.790	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0015	6/13/2013 7:25:42 AM
15	1	241116.1	241116.1	0.917	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0016	6/13/2013 7:25:59 AM
16	2.5	587005.4	234802.2	-1.726	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0017	6/13/2013 7:26:15 AM
17	2.5	579802.9	231921.2	-2.932	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0018	6/13/2013 7:26:31 AM
18	2.5	594270.9	237708.3	-0.510	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0019	6/13/2013 7:26:46 AM
19	5	1188236	237647.2	-0.535	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0020	6/13/2013 7:27:07 AM
20	5	1187571	237514.2	-0.591	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0021	6/13/2013 7:27:30 AM
21	5	1196602	239320.4	0.165	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0022	6/13/2013 7:27:52 AM
22	7.5	1792229	238963.9	0.016	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0023	6/13/2013 7:28:15 AM
23	7.5	1807473	240996.4	0.867	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0024	6/13/2013 7:28:35 AM
24	7.5	1806138	240818.4	0.792	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0025	6/13/2013 7:28:58 AM
25	10	2394549	239454.9	0.221	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0026	6/13/2013 7:29:18 AM
26	10	2387175	238717.5	-0.087	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0027	6/13/2013 7:29:40 AM
27	10	2375749	237574.9	-0.565	C:\Chromep perfect 2\Data\HPLC #1\2013\061113(cal)\061113.0028	6/13/2013 7:29:57 AM

File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113(cal).SEQ

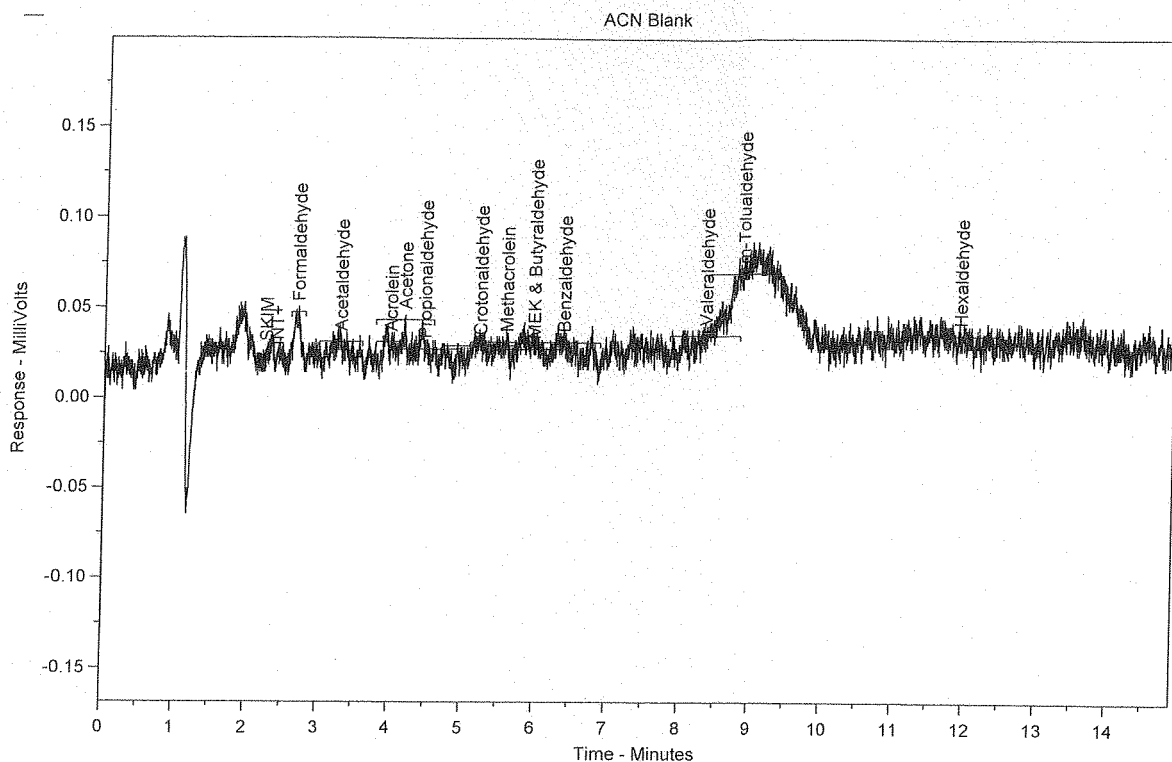
File Date = 6/12/2013 11:26:01 AM

Analyst=

Entry #	Raw File Name	Method File Name	Sample Name	Vial #	DF
1	061113.0001.raw	061113 TO-11A.MET	ACN Blank	1	1
2	061113.0002.raw	061113 TO-11A.MET	STD 1-1 (.005ug/ml [PS061113-01]x2000)	2	1
3	061113.0003.raw	061113 TO-11A.MET	STD 1-2 (.005ug/ml [PS061113-01]x2000)	2	1
4	061113.0004.raw	061113 TO-11A.MET	STD 1-3 (.005ug/ml [PS061113-01]x2000)	2	1
5	061113.0005.raw	061113 TO-11A.MET	STD 2-1 (.025ug/ml [PS061113-01]x400)	3	1
6	061113.0006.raw	061113 TO-11A.MET	STD 2-2 (.025ug/ml [PS061113-01]x400)	3	1
7	061113.0007.raw	061113 TO-11A.MET	STD 2-3 (.025ug/ml [PS061113-01]x400)	3	1
8	061113.0008.raw	061113 TO-11A.MET	STD 3-1 (.050ug/ml [PS061113-01]x200)	4	1
9	061113.0009.raw	061113 TO-11A.MET	STD 3-2 (.050ug/ml [PS061113-01]x200)	4	1
10	061113.0010.raw	061113 TO-11A.MET	STD 3-3 (.050ug/ml [PS061113-01]x200)	4	1
11	061113.0011.raw	061113 TO-11A.MET	STD 4-1 (.5ug/ml [PS061113-01]x20)	5	1
12	061113.0012.raw	061113 TO-11A.MET	STD 4-2 (.5ug/ml [PS061113-01]x20)	5	1
13	061113.0013.raw	061113 TO-11A.MET	STD 4-3 (.5ug/ml [PS061113-01]x20)	5	1
14	061113.0014.raw	061113 TO-11A.MET	STD 5-1 (1.0ug/ml [PS061113-01]x10)	6	1
15	061113.0015.raw	061113 TO-11A.MET	STD 5-2 (1.0ug/ml [PS061113-01]x10)	6	1
16	061113.0016.raw	061113 TO-11A.MET	STD 5-3 (1.0ug/ml [PS061113-01]x10)	6	1
17	061113.0017.raw	061113 TO-11A.MET	STD 6-1 (2.5ug/ml [PS061113-01]x4)	7	1
18	061113.0018.raw	061113 TO-11A.MET	STD 6-2 (2.5ug/ml [PS061113-01]x4)	7	1
19	061113.0019.raw	061113 TO-11A.MET	STD 6-3 (2.5ug/ml [PS061113-01]x4)	7	1
20	061113.0020.raw	061113 TO-11A.MET	STD 7-1 (5.0ug/ml [PS061113-01]x2)	8	1
21	061113.0021.raw	061113 TO-11A.MET	STD 7-2 (5.0ug/ml [PS061113-01]x2)	8	1
22	061113.0022.raw	061113 TO-11A.MET	STD 7-3 (5.0ug/ml [PS061113-01]x2)	8	1
23	061113.0023.raw	061113 TO-11A.MET	STD 8-1 (7.5ug/ml [PS061113-01]x1.3)	9	1
24	061113.0024.raw	061113 TO-11A.MET	STD 8-2 (7.5ug/ml [PS061113-01]x1.3)	9	1
25	061113.0025.raw	061113 TO-11A.MET	STD 8-3 (7.5ug/ml [PS061113-01]x1.3)	9	1
26	061113.0026.raw	061113 TO-11A.MET	STD 9-1 (10.0ug/ml [PS061113-01]x1)	10	1
27	061113.0027.raw	061113 TO-11A.MET	STD 9-2 (10.0ug/ml [PS061113-01]x1)	10	1
28	061113.0028.raw	061113 TO-11A.MET	STD 9-3 (10.0ug/ml [PS061113-01]x1)	10	1
29	061113.0029.raw	061113 TO-11A.MET	ACN Blank	11	1
30	061113.0030.raw	061113 TO-11A.MET	CCV (2.5ug/ml [PS061113-01]x4)	12	1
31	061113.0031.raw	061113 TO-11A.MET	CCV (2.5ug/ml [PS061113-01]x4)	13	1
32	061113.0032.raw	061113 TO-11A.MET	ACN Blank	14	1
33	061113.0033.raw	061113 TO-11A.MET	STD 2-1 (.025ug/ml [PS061113-01]x400)	15	1

Raw Data

Chrom Perfect Chromatogram Report



Sample Name = ACN Blank

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0001.RAW

Date Taken (end) = 7/29/2013 10:30:40 AM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 1

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
--------	-----------	------	--------	-------	------	--------	------	-------

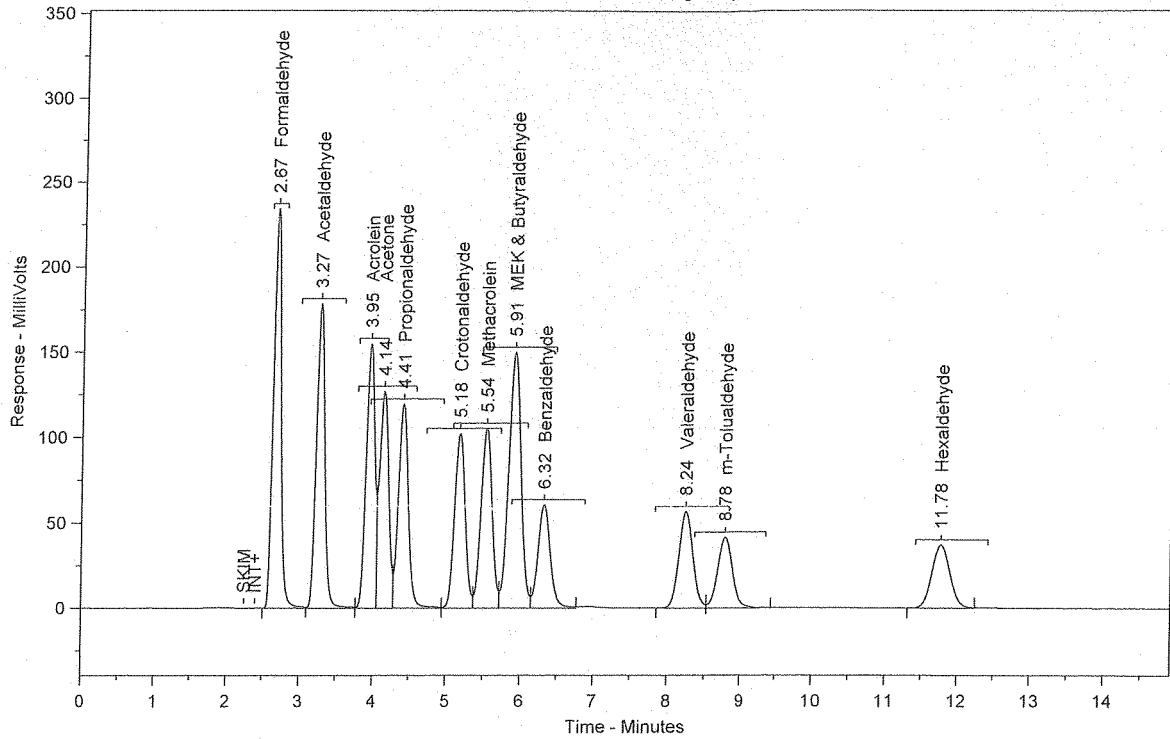
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Total Height = 0

Total Amount = 0

Chrom Perfect Chromatogram Report

CCV 2.5 ug/mL (PS061113-01)



Sample Name = CCV 2.5 ug/mL (PS061113-01)

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0002.RAW

Date Taken (end) = 7/29/2013 10:47:19 AM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 2

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.67	Formaldehyde	2.6484	7.620	1704147	12.965	SBB	0.11
2	3.27	Acetaldehyde	2.6807	7.713	1416531	10.777	TBV	0.12
3	3.95	Acrolein	2.6655	7.669	1277114	9.716	TVV	0.14
4	4.14	Acetone	2.6575	7.646	1106613	8.419	TVV	0.13
5	4.41	Propionaldehyde	2.7091	7.795	1120196	8.522	TVV	0.14
6	5.18	Crotonaldehyde	2.6653	7.669	1013235	7.708	TVV	0.15
7	5.54	Methacrolein	2.6835	7.721	1079037	8.209	TVV	0.15
8	5.91	MEK & Butyraldehyde	5.3425	15.372	1729516	13.158	TVV	0.17
9	6.32	Benzaldehyde	2.6931	7.749	712400	5.420	TVB	0.18
10	8.24	Valeraldehyde	2.6685	7.678	744976	5.668	BV	0.20
11	8.78	m-Tolualdehyde	2.6573	7.646	599683	4.562	VB	0.22
12	11.78	Hexaldehyde	2.6835	7.721	641157	4.878	BB	0.27

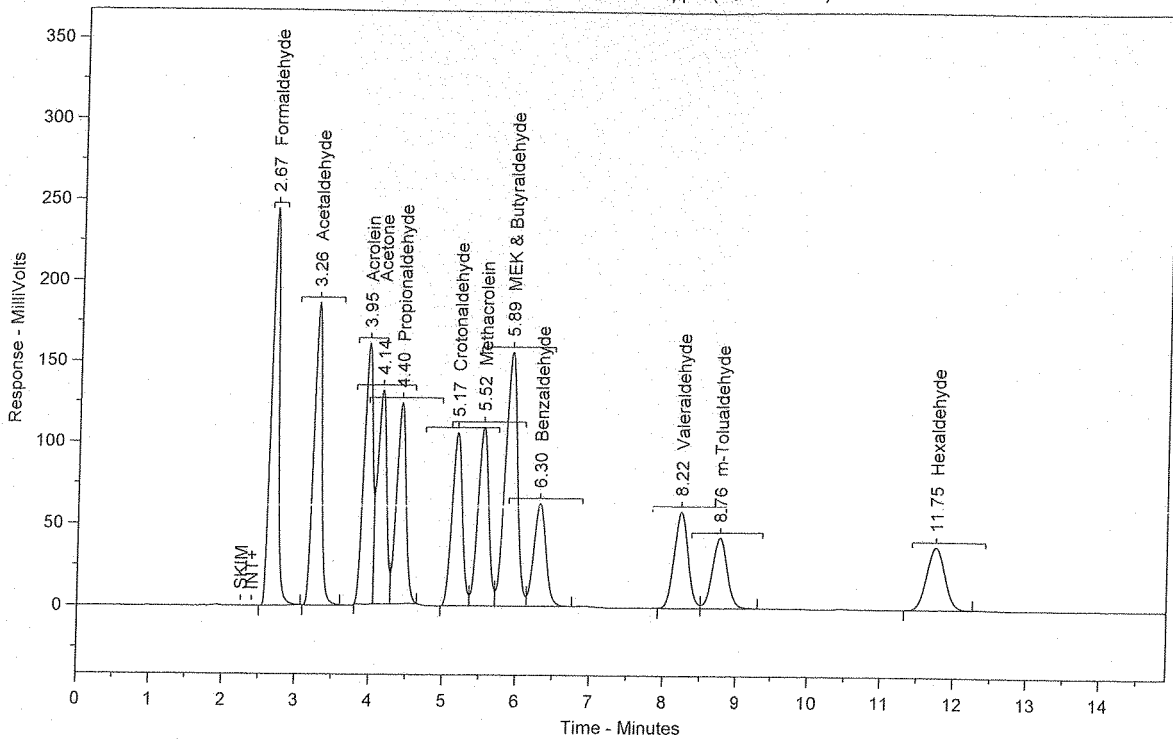
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Total Height = 1366921

Total Amount = 34.75483

Chrom Perfect Chromatogram Report

SS 1.25 ppm (PS011613-01)



Sample Name = SS 1.25 ppm (PS011613-01)

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0003.RAW

Date Taken (end) = 7/29/2013 11:03:58 AM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 3

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.67	Formaldehyde	2.7347	7.730	1759704	13.145	BB	0.11
2	3.26	Acetaldehyde	2.7309	7.720	1443044	10.780	BB	0.12
3	3.95	Acrolein	2.7010	7.635	1294144	9.667	BV	0.14
4	4.14	Acetone	2.7327	7.725	1137956	8.501	VV	0.13
5	4.40	Propionaldehyde	2.6659	7.536	1102332	8.234	VB	0.14
6	5.17	Crotonaldehyde	2.7148	7.674	1032038	7.709	BV	0.15
7	5.52	Methacrolein	2.7363	7.735	1100261	8.219	VV	0.15
8	5.89	MEK & Butyraldehyde	5.4856	15.507	1775833	13.266	VV	0.17
9	6.30	Benzaldehyde	2.6880	7.598	711070	5.312	VB	0.17
10	8.22	Valeraldehyde	2.7430	7.754	765786	5.720	BV	0.20
11	8.76	m-Tolualdehyde	2.7009	7.635	609521	4.553	VB	0.22
12	11.75	Hexaldehyde	2.7419	7.751	655117	4.894	BB	0.27

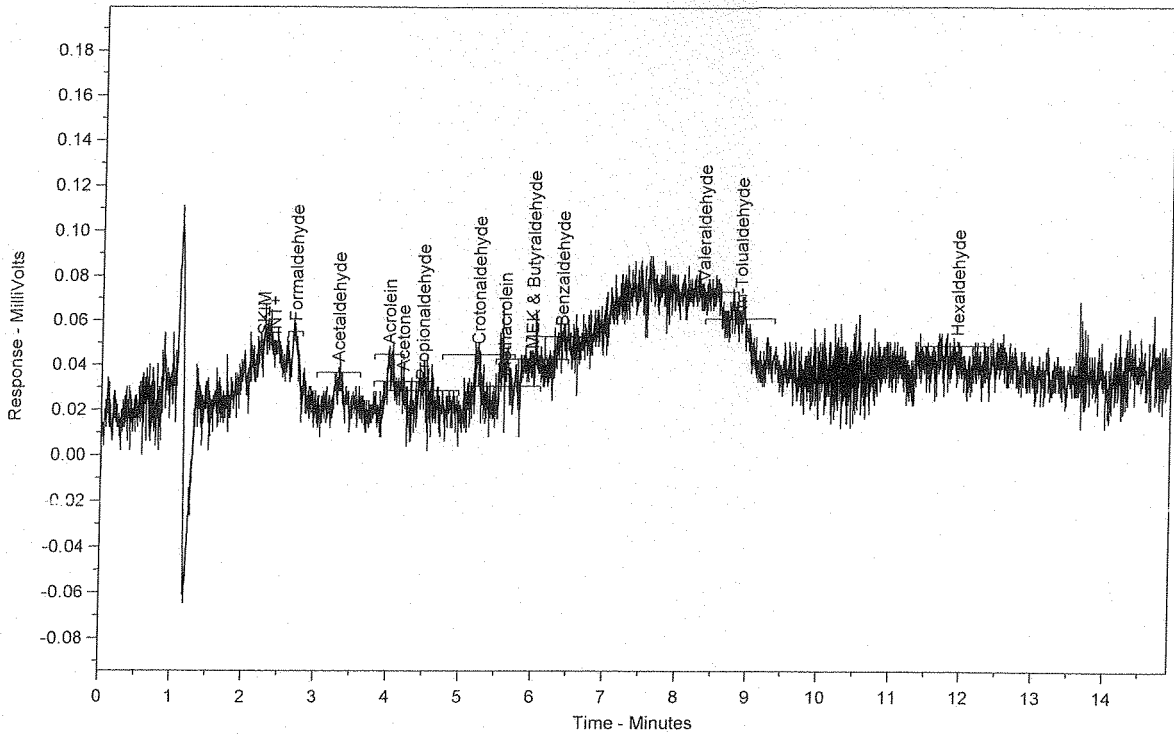
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Total Amount = 35.3758

Chrom Perfect Chromatogram Report

TO-11 Method Blank



Sample Name = TO-11 Method Blank

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0004.RAW

Date Taken (end) = 7/29/2013 11:20:37 AM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

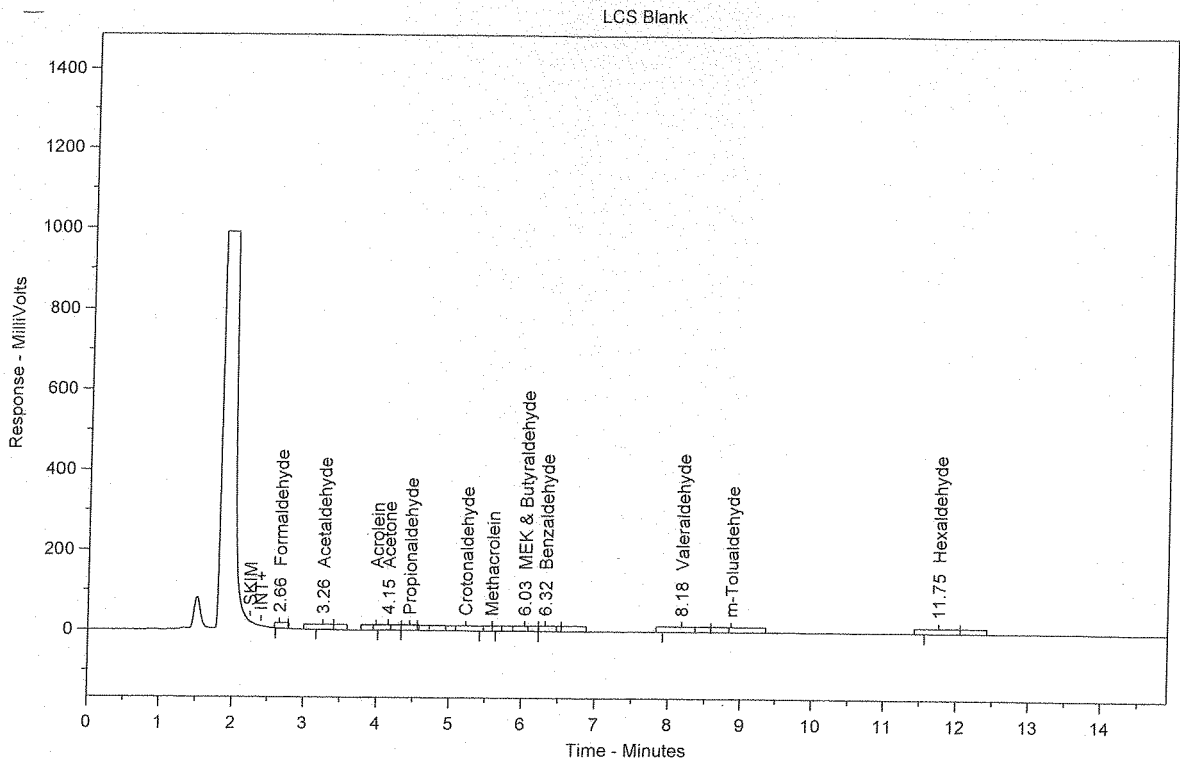
Vial Number = 4

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
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Chrom Perfect Chromatogram Report



Sample Name = LCS Blank

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0005.RAW

Date Taken (end) = 7/29/2013 11:37:15 AM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 5

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.66	Formaldehyde	0.0081	6.746	5196	12.201	BB	0.12
2	3.26	Acetaldehyde	0.0069	5.805	3671	8.622	BB	0.16
3	4.15	Acetone	0.0240	20.010	9973	23.421	BV	0.13
6	6.03	MEK & Butyraldehyde	0.0370	30.919	11980	28.134	BV	0.24
7	6.32	Benzaldehyde	0.0109	9.079	2875	6.751	VB	0.20
8	8.18	Valeraldehyde	0.0259	21.600	7218	16.950	BB	0.25
9	11.75	Hexaldehyde	0.0070	5.840	1670	3.922	BB	0.29

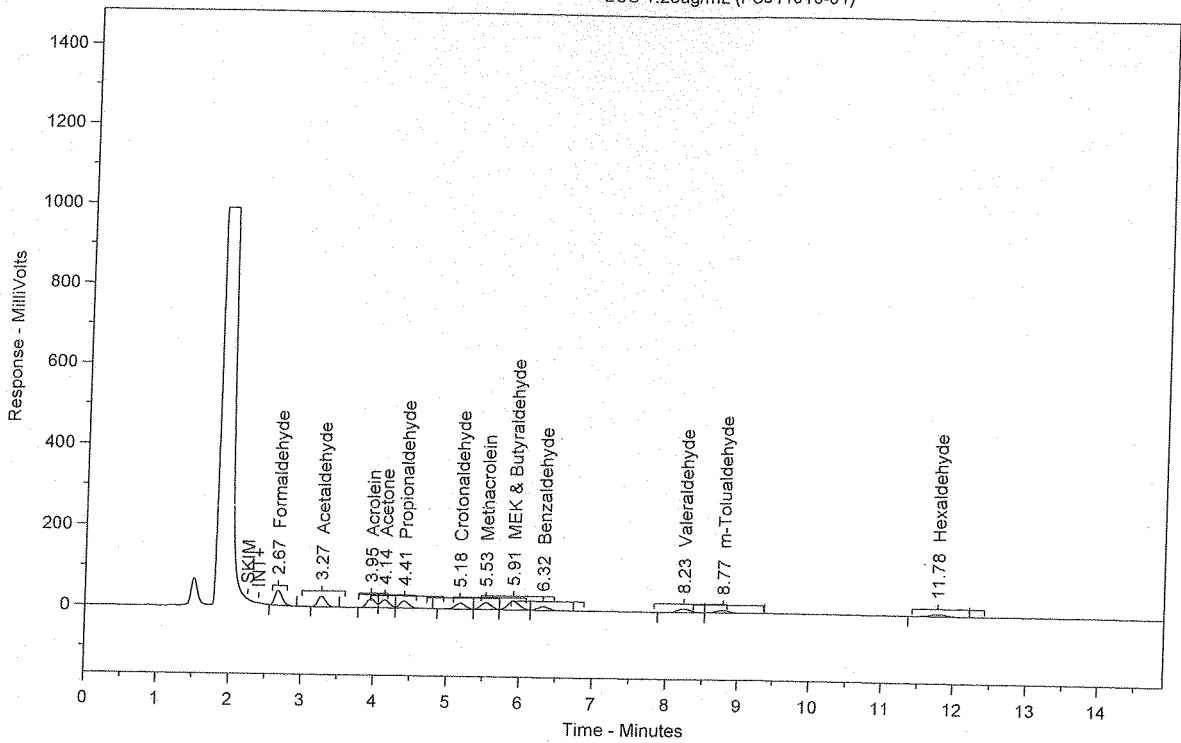
Total Area = 42583.5

Total Height = 4086.386

Total Amount = 0.119692

Chrom Perfect Chromatogram Report

LCS 1.25ug/mL (PS011013-01)



Sample Name = LCS 1.25ug/mL (PS011013-01)

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0006.RAW

Date Taken (end) = 7/29/2013 11:53:55 AM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
 Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
 Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 6

Injection Volume = 10

Dilution Factor = 1

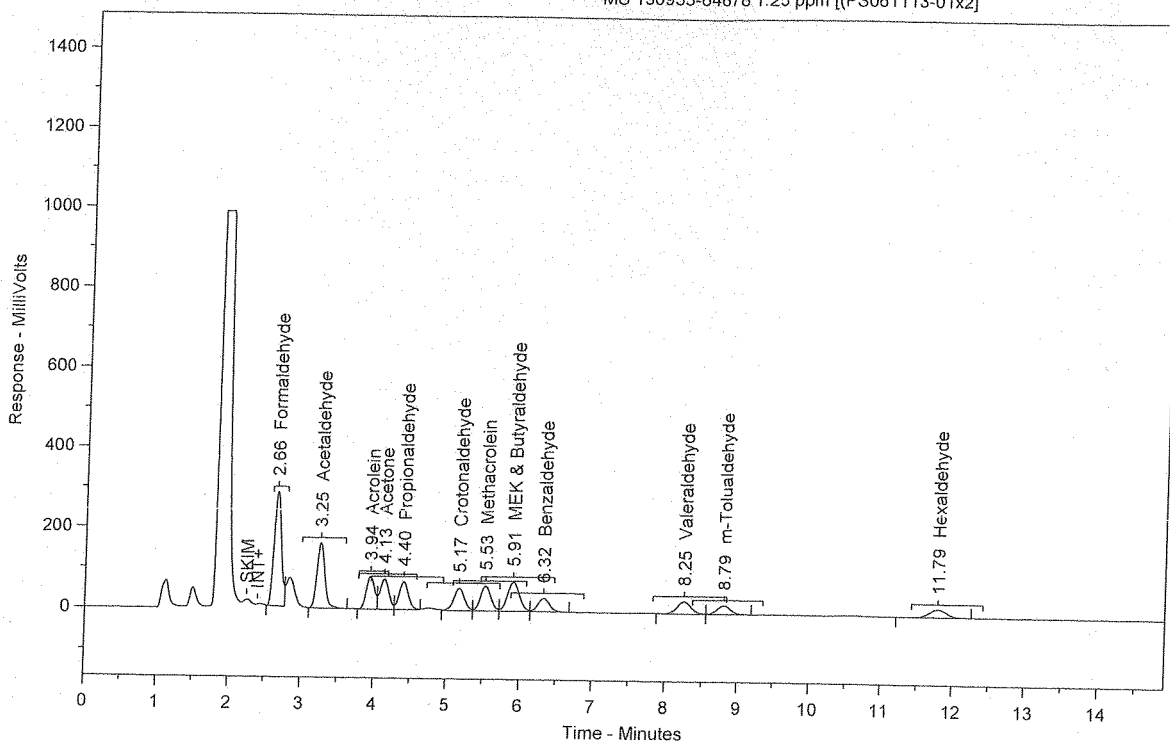
Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.67	Formaldehyde	0.3969	7.856	255390	13.335	BB	0.11
2	3.27	Acetaldehyde	0.3751	7.425	198207	10.350	BB	0.12
3	3.95	Acrolein	0.3873	7.667	185572	9.690	BV	0.14
4	4.14	Acetone	0.4121	8.157	171596	8.960	VV	0.13
5	4.41	Propionaldehyde	0.3852	7.625	159280	8.317	VB	0.14
6	5.18	Crotonaldehyde	0.3774	7.471	143483	7.492	BV	0.15
7	5.53	Methacrolein	0.4190	8.294	168479	8.797	VV	0.15
8	5.91	MEK & Butyraldehyde	0.7413	14.674	239979	12.531	VV	0.17
9	6.32	Benzaldehyde	0.3807	7.536	100714	5.259	VB	0.17
10	8.23	Valeraldehyde	0.4065	8.047	113498	5.926	BV	0.20
11	8.77	m-Tolualdehyde	0.3853	7.627	86956	4.541	VB	0.22
12	11.78	Hexaldehyde	0.3849	7.619	91961	4.802	BB	0.27

Total Area = 1915114

Total Height = 204940.9

Total Amount = 5.051798

MS 130935-64678 1.25 ppm [(PS061113-01x2)]



Sample Name = MS 130935-64678 1.25 ppm [(PS061113-01x2)]

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0007.RAW

Date Taken (end) = 7/29/2013 12:10:34 PM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
 Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
 Concentration Units = ug/ml

Run Time = 14.89889
 Injection Volume = 10

Vial Number = 7
 Dilution Factor = 1

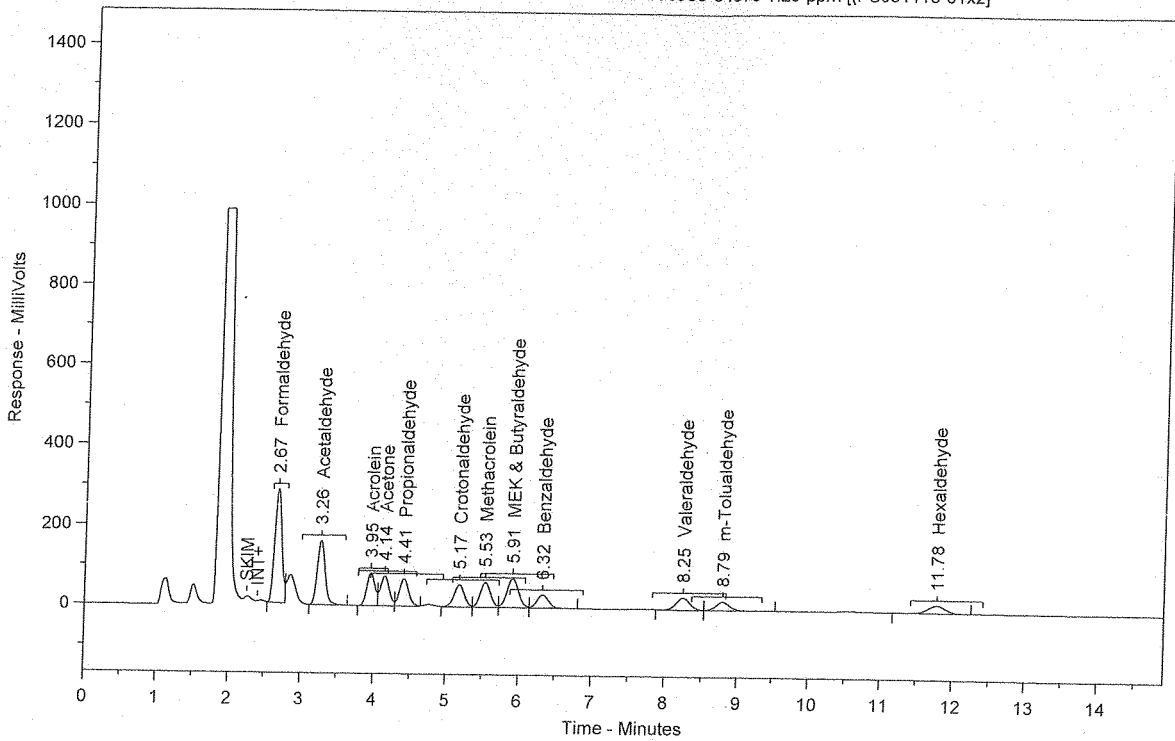
Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.66	Formaldehyde	3.0263	14.588	1947309	23.052	BB	0.11
2	3.25	Acetaldehyde	2.3219	11.193	1226908	14.524	BB	0.12
3	3.94	Acrolein	1.3474	6.495	645570	7.642	BV	0.13
4	4.13	Acetone	1.5218	7.336	633694	7.502	VV	0.13
5	4.40	Propionaldehyde	1.4824	7.146	612966	7.256	VB	0.13
6	5.17	Crotonaldehyde	1.4520	6.999	551987	6.534	BV	0.15
7	5.53	Methacrolein	1.5169	7.312	609951	7.221	VV	0.15
8	5.91	MEK & Butyraldehyde	2.5100	12.100	812551	9.619	VV	0.17
9	6.32	Benzaldehyde	1.3796	6.650	364937	4.320	VB	0.17
10	8.25	Valeraldehyde	1.4591	7.034	407353	4.822	BV	0.20
11	8.79	m-Tolualdehyde	1.3154	6.341	296851	3.514	VB	0.21
12	11.79	Hexaldehyde	1.4119	6.806	337351	3.994	BB	0.27

Total Area = 8447426

Total Height = 959184.3

Total Amount = 20.74463

07/29/13



Sample Name = MSD 130935-64678 1.25 ppm [(PS061113-01x2)]

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0008.RAW

Date Taken (end) = 7/29/2013 12:27:13 PM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
 Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
 Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 8

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.67	Formaldehyde	3.0183	14.500	1942183	22.943	BB	0.11
2	3.26	Acetaldehyde	2.3219	11.154	1226905	14.493	BB	0.12
3	3.95	Acrolein	1.3523	6.496	647915	7.654	BV	0.13
4	4.14	Acetone	1.5207	7.306	633256	7.481	VV	0.13
5	4.41	Propionaldehyde	1.4877	7.147	615136	7.266	VB	0.13
6	5.17	Crotonaldehyde	1.4591	7.010	554701	6.553	BV	0.15
7	5.53	Methacrolein	1.5243	7.323	612937	7.241	VV	0.15
8	5.91	MEK & Butyraldehyde	2.5115	12.065	813043	9.604	VV	0.17
9	6.32	Benzaldehyde	1.3840	6.649	366106	4.325	VB	0.17
10	8.25	Valeraldehyde	1.4632	7.029	408498	4.826	BV	0.20
11	8.79	m-Tolualdehyde	1.3455	6.464	303639	3.587	VB	0.21
12	11.78	Hexaldehyde	1.4275	6.858	341060	4.029	BB	0.27

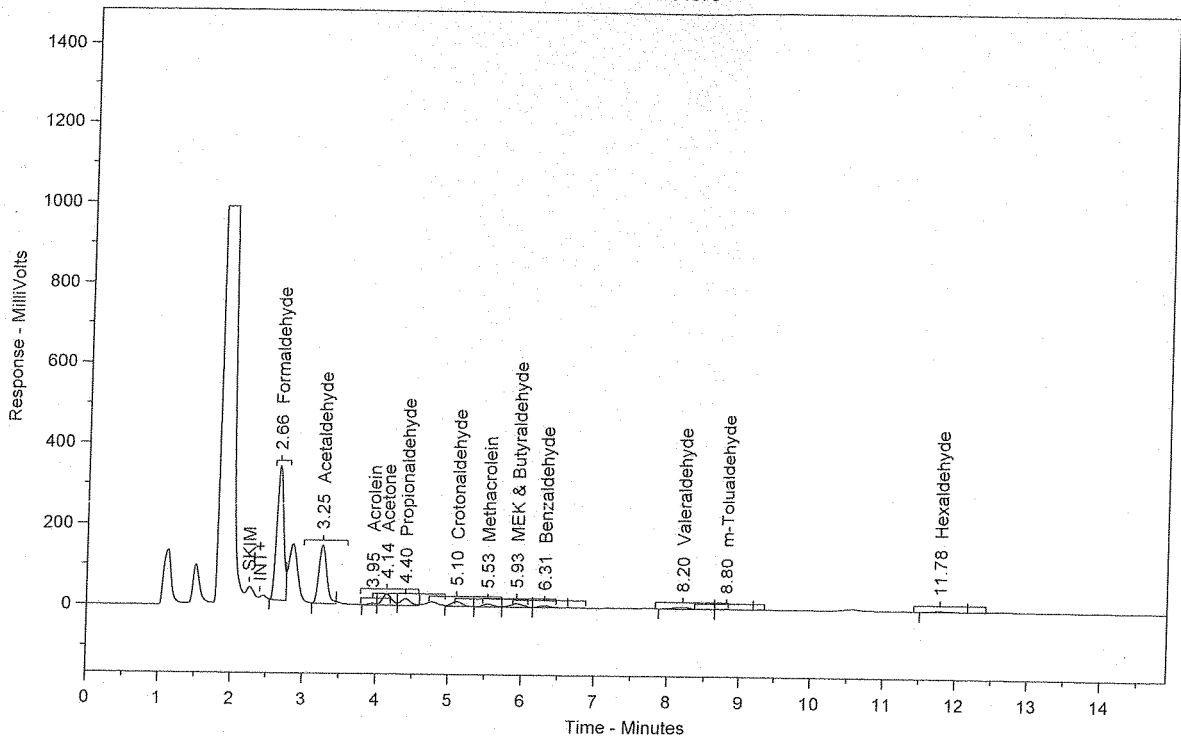
Total Area = 8465378

Total Height = 963646.3

Total Amount = 20.81596

Chrom Perfect Chromatogram Report

130935-64678



Sample Name = 130935-64678

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0009.RAW

Date Taken (end) = 7/29/2013 12:43:55 PM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
 Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
 Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 9

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.66	Formaldehyde	3.4555	42.994	2223513	52.882	BB	0.11
2	3.25	Acetaldehyde	2.0316	25.278	1073535	25.532	BB	0.11
3	3.95	Acrolein	0.0595	0.740	28487	0.677	BV	0.12
4	4.14	Acetone	0.5908	7.351	246024	5.851	VV	0.12
5	4.40	Propionaldehyde	0.3880	4.827	160415	3.815	VB	0.13
6	5.10	Crotonaldehyde	0.3101	3.858	117881	2.804	BB	0.17
7	5.53	Methacrolein	0.1521	1.893	61171	1.455	BV	0.15
8	5.93	MEK & Butyraldehyde	0.3043	3.786	98500	2.343	VV	0.18
9	6.31	Benzaldehyde	0.1860	2.314	49204	1.170	VB	0.18
10	8.20	Valeraldehyde	0.3213	3.997	89690	2.133	BV	0.31
11	8.80	m-Tolualdehyde	0.0437	0.544	9869	0.235	VB	0.36
12	11.78	Hexaldehyde	0.1943	2.417	46419	1.104	BB	0.27

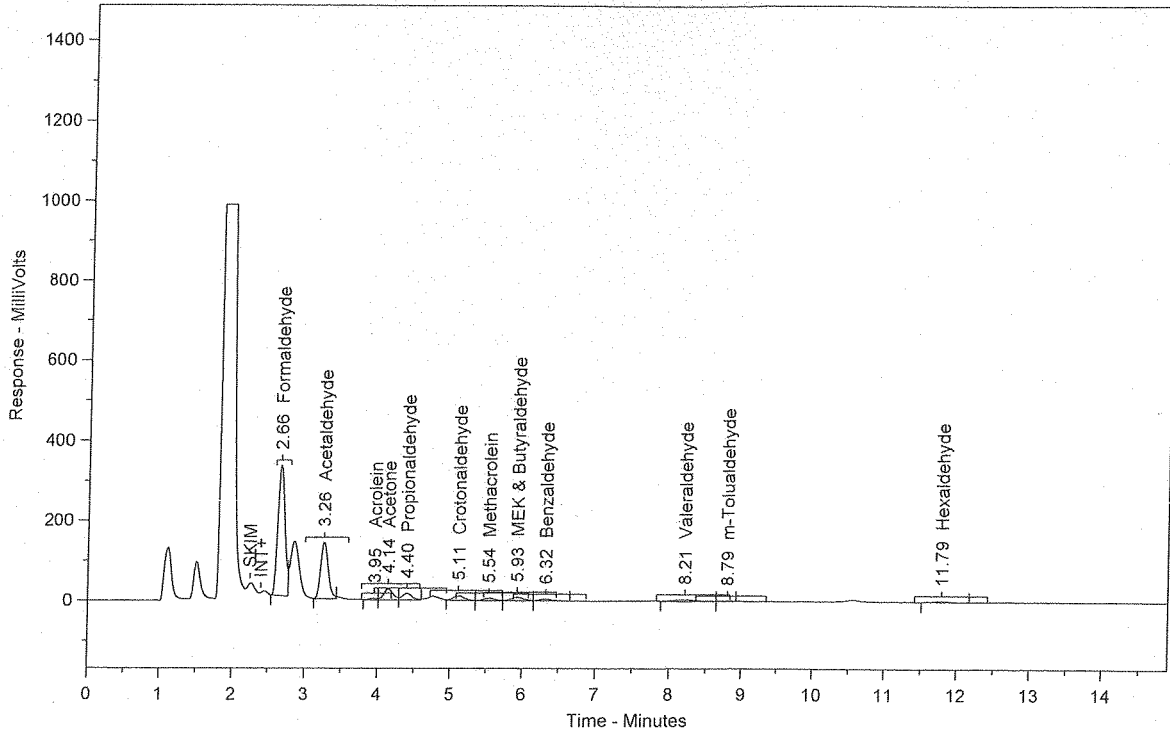
Total Area = 4204708

Total Height = 560957.7

Total Amount = 8.037104

Chrom Perfect Chromatogram Report

130935-64678 dup



Sample Name = 130935-64678 dup

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0010.RAW

Date Taken (end) = 7/29/2013 1:00:34 PM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 10

Injection Volume = 10

Dilution Factor = 1

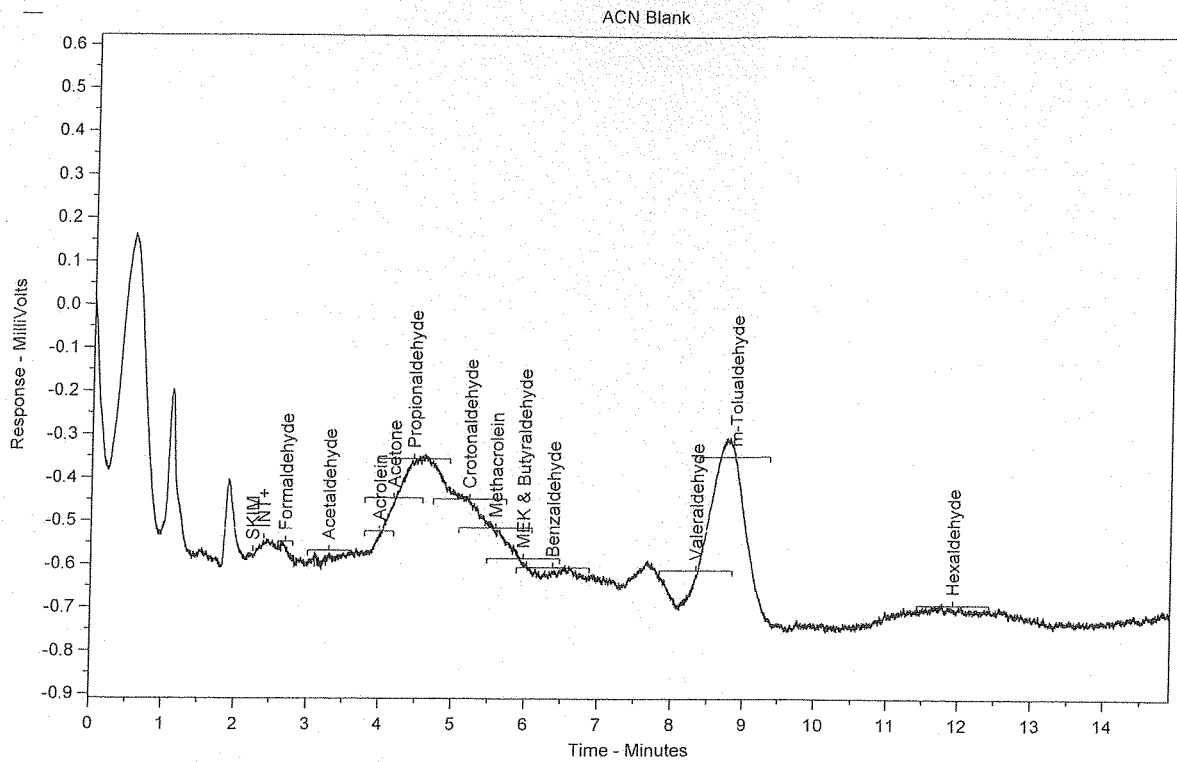
Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.66	Formaldehyde	3.3919	43.017	2182577	52.967	BB	0.11
2	3.26	Acetaldehyde	1.9751	25.049	1043674	25.328	BB	0.11
3	3.95	Acrolein	0.0570	0.722	27288	0.662	BV	0.12
4	4.14	Acetone	0.5772	7.320	240350	5.833	VV	0.12
5	4.40	Propionaldehyde	0.3794	4.811	156871	3.807	VB	0.13
6	5.11	Crotonaldehyde	0.3061	3.882	116353	2.824	BB	0.16
7	5.54	Methacrolein	0.1498	1.900	60250	1.462	BV	0.15
8	5.93	MEK & Butyraldehyde	0.3007	3.814	97357	2.363	VV	0.18
9	6.32	Benzaldehyde	0.1821	2.309	48164	1.169	VB	0.18
10	8.21	Valeraldehyde	0.3279	4.159	91554	2.222	BV	0.31
11	8.79	m-Tolualdehyde	0.0446	0.566	10067	0.244	VB	0.17
12	11.79	Hexaldehyde	0.1932	2.450	46153	1.120	BB	0.27

Total Area = 4120657

Total Height = 552205

Total Amount = 7.884947

Chrom Perfect Chromatogram Report



Sample Name = ACN Blank

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0012.RAW

Date Taken (end) = 7/29/2013 1:33:52 PM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 12

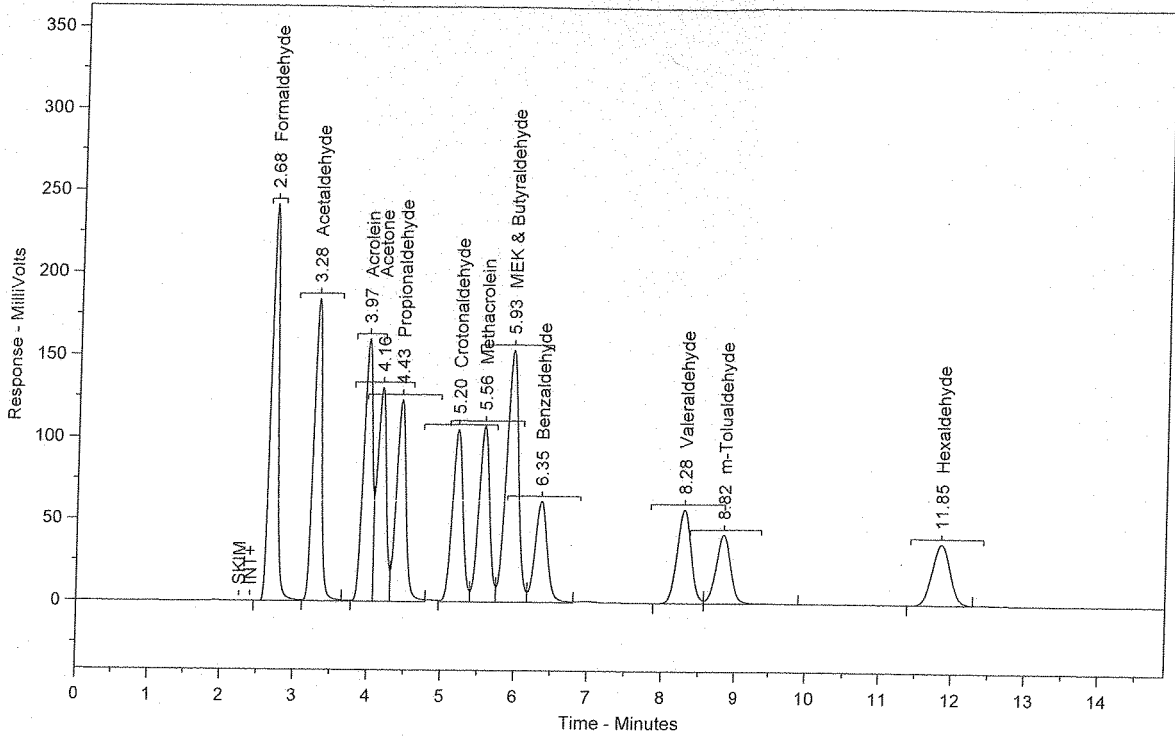
Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
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Chrom Perfect Chromatogram Report

CCV 2.5 ug/mL (PS011613-01)



Sample Name = CCV 2.5 ug/mL (PS011613-01)

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0013.RAW

Date Taken (end) = 7/29/2013 1:50:31 PM

Method File Name = C:\Chromperfect 2-Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2-Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 13

Injection Volume = 10

Dilution Factor = 1

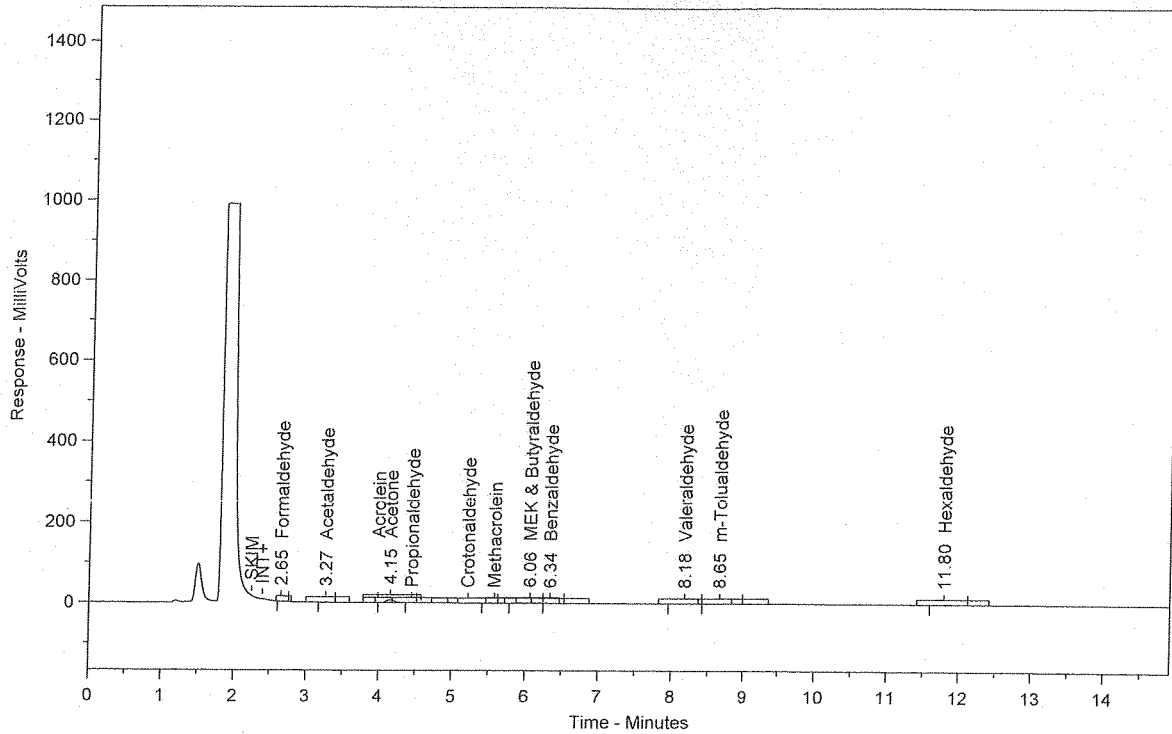
Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.68	Formaldehyde	2.7001	7.650	1737433	13.011	SBB	0.11
2	3.28	Acetaldehyde	2.7106	7.680	1432319	10.726	TBV	0.12
3	3.97	Acrolein	2.7276	7.728	1306891	9.787	TVV	0.14
4	4.16	Acetone	2.6987	7.646	1123762	8.416	TVV	0.13
5	4.43	Propionaldehyde	2.7353	7.750	1131031	8.470	TVB	0.14
6	5.20	Crotonaldehyde	2.7172	7.699	1032975	7.736	BV	0.15
7	5.56	Methacrolein	2.7155	7.694	1091904	8.177	VV	0.15
8	5.93	MEK & Butyraldehyde	5.4511	15.445	1764664	13.215	VV	0.17
9	6.35	Benzaldehyde	2.7234	7.716	720439	5.395	VB	0.17
10	8.28	Valeraldehyde	2.7034	7.660	754734	5.652	BV	0.20
11	8.82	m-Tolualdehyde	2.6945	7.634	608061	4.554	VB	0.22
12	11.85	Hexaldehyde	2.7172	7.699	649205	4.862	BB	0.27

Total Area = 1.335342E+07

Total Height = 1408049

Total Amount = 35.29462

130975-64924



Sample Name = 130975-64924

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0014.RAW

Date Taken (end) = 7/29/2013 2:07:10 PM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 14

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.65	Formaldehyde	0.0042	1.418	2673	2.513	BB	0.11
2	3.27	Acetaldehyde	0.0126	4.301	6657	6.260	BB	0.13
3	4.15	Acetone	0.1454	49.631	60540	56.931	SBB	0.13
6	6.06	MEK & Butyraldehyde	0.0559	19.076	18089	17.011	BV	0.20
7	6.34	Benzaldehyde	0.0125	4.252	3295	3.098	VB	0.19
8	8.18	Valeraldehyde	0.0152	5.172	4230	3.978	BV	0.24
9	8.65	m-Tolualdehyde	0.0337	11.519	7615	7.161	VB	0.25
10	11.80	Hexaldehyde	0.0136	4.631	3241	3.048	BB	0.32

Total Area = 106339.3

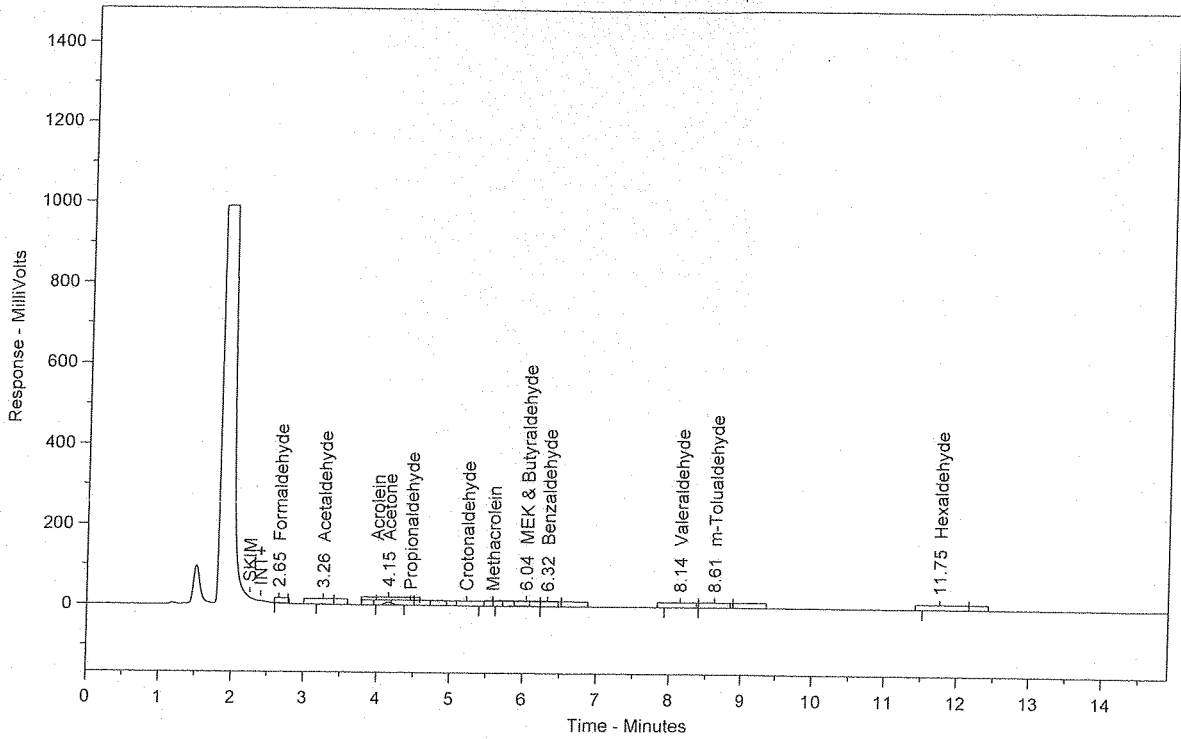
Total Height = 11248.48

Total Amount = 0.2929279

C712913

Chrom Perfect Chromatogram Report

130975-64924 dup



Sample Name = 130975-64924 dup

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0015.RAW

Date Taken (end) = 7/29/2013 2:23:49 PM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 15

Injection Volume = 10

Dilution Factor = 1

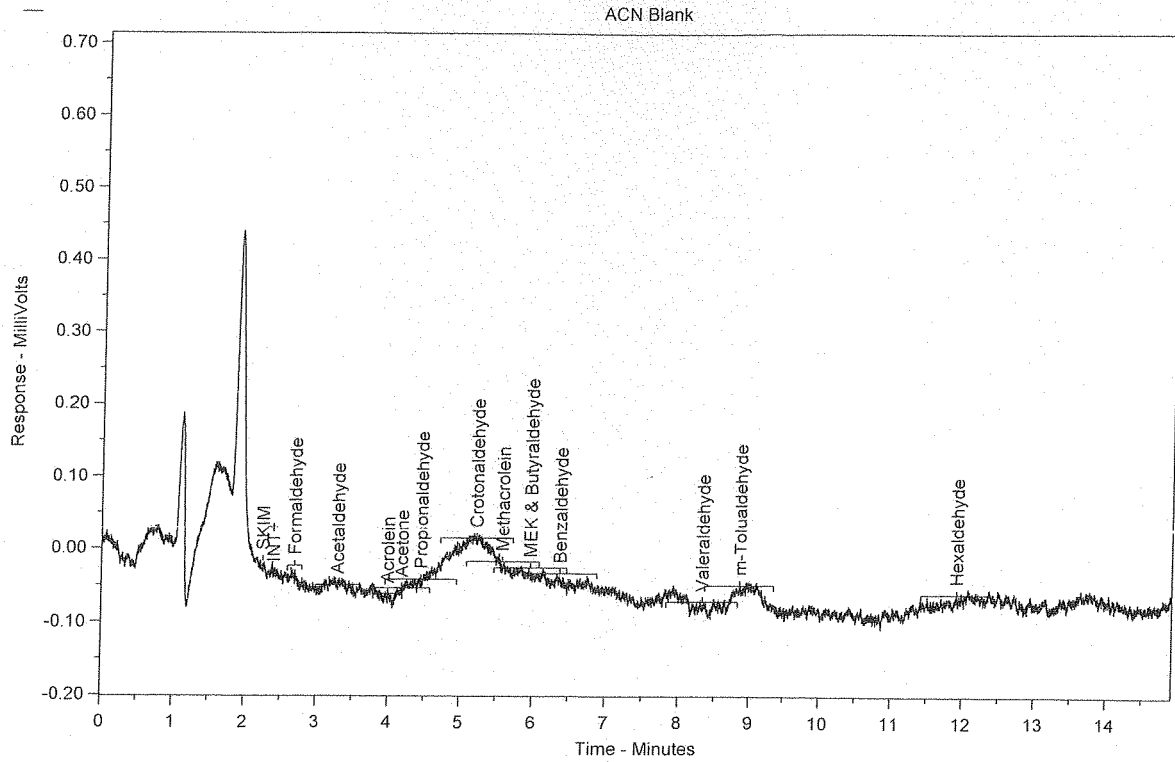
Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.65	Formaldehyde	0.0053	1.803	3409	3.181	BB	0.13
2	3.26	Acetaldehyde	0.0122	4.165	6465	6.034	BB	0.14
3	4.15	Acetone	0.1450	49.351	60370	56.340	SBB	0.13
6	6.04	MEK & Butyraldehyde	0.0598	20.347	19350	18.058	BV	0.22
7	6.32	Benzaldehyde	0.0116	3.944	3065	2.860	VB	0.18
8	8.14	Valeraldehyde	0.0150	5.108	4189	3.910	BV	0.31
9	8.61	m-Tolualdehyde	0.0318	10.812	7168	6.689	VB	0.24
10	11.75	Hexaldehyde	0.0131	4.470	3137	2.928	BB	0.30

Total Area = 107153

Total Height = 11183.29

Total Amount = 0.2937649

Chrom Perfect Chromatogram Report



Sample Name = ACN Blank

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0023.RAW

Date Taken (end) = 7/29/2013 4:37:04 PM

Method File Name = C:\Chromperfect 2-Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2-Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 23

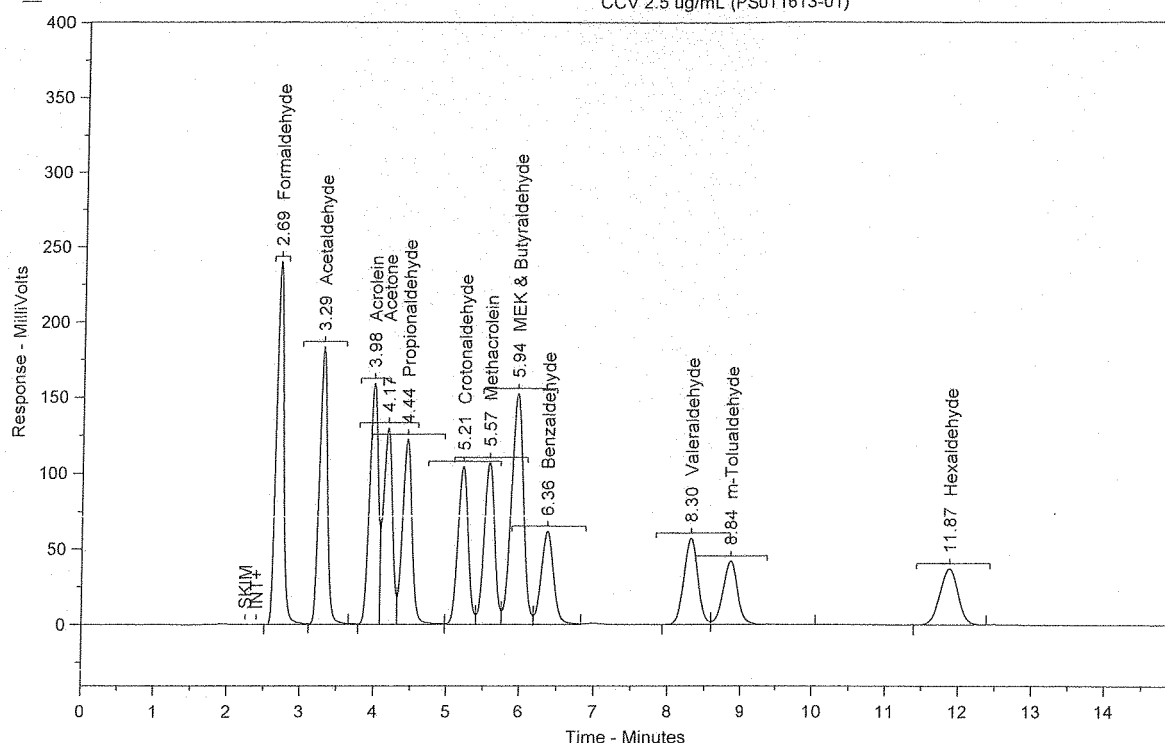
Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
Total Area = 0			Total Height = 0		Total Amount = 0			

Chrom Perfect Chromatogram Report

CCV 2.5 ug/mL (PS011613-01)



Sample Name = CCV 2.5 ug/mL (PS011613-01)

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0024.RAW

Date Taken (end) = 7/29/2013 4:53:42 PM

Method File Name = C:\Chromperfect 2-Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2-Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 24

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.69	Formaldehyde	2.6562	7.620	1709166	12.965	SBB	0.11
2	3.29	Acetaldehyde	2.6749	7.674	1413462	10.722	TBV	0.12
3	3.98	Acrolein	2.6947	7.731	1291099	9.793	TVV	0.14
4	4.17	Acetone	2.6650	7.646	1109763	8.418	TVV	0.13
5	4.44	Propionaldehyde	2.7018	7.751	1117169	8.474	TVV	0.14
6	5.21	Crotonaldehyde	2.6748	7.674	1016847	7.713	TVV	0.15
7	5.57	Methacrolein	2.6859	7.705	1080019	8.192	TVV	0.15
8	5.94	MEK & Butyraldehyde	5.3822	15.441	1742363	13.216	TVV	0.17
9	6.36	Benzaldehyde	2.7037	7.756	715209	5.425	TVB	0.17
10	8.30	Valeraldehyde	2.6850	7.703	749585	5.686	BV	0.20
11	8.84	m-Tolualdehyde	2.6762	7.678	603944	4.581	VB	0.22
12	11.87	Hexaldehyde	2.6569	7.622	634796	4.815	BB	0.27

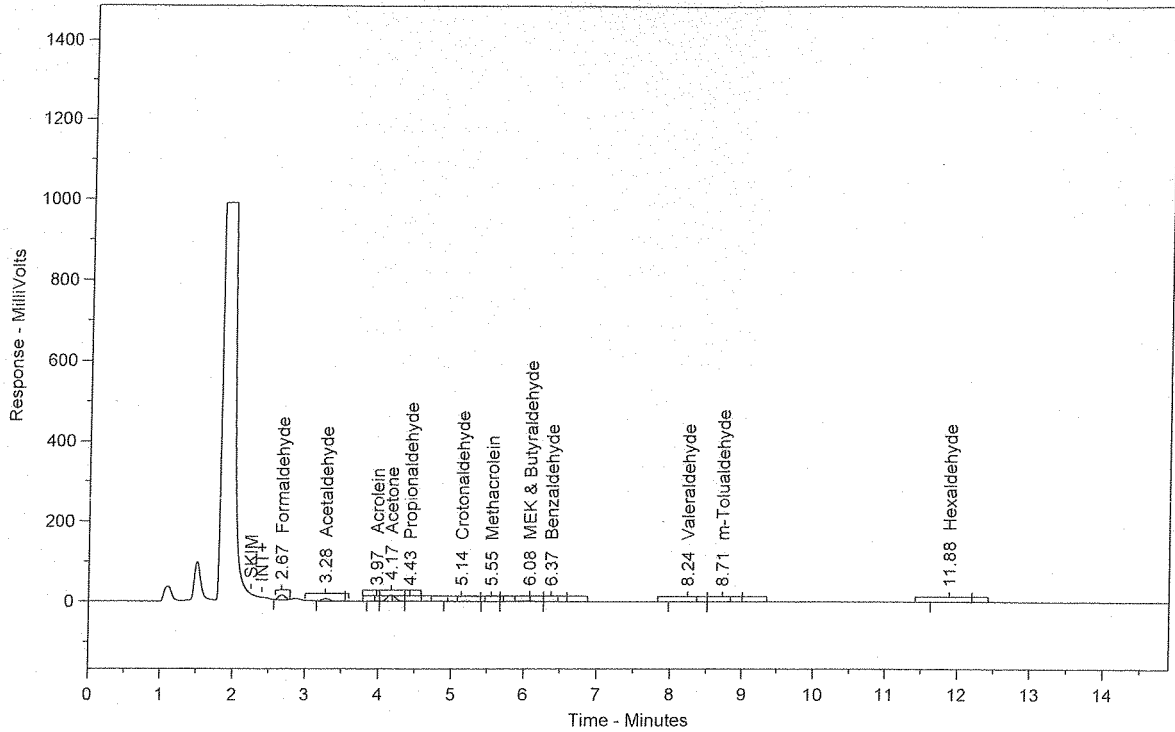
Total Area = 1.318342E+07

Total Height = 1397166

Total Amount = 34.85726

Chrom Perfect Chromatogram Report

130975-64923



Sample Name = 130975-64923

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0025.RAW

Date Taken (end) = 7/29/2013 5:10:21 PM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 25

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.67	Formaldehyde	0.1180	15.726	75917	23.709	BB	0.10
2	3.28	Acetaldehyde	0.0747	9.958	39477	12.329	BB	0.12
3	3.97	Acrolein	0.0043	0.571	2053	0.641	BV	0.10
4	4.17	Acetone	0.3070	40.923	127845	39.926	VV	0.13
5	4.43	Propionaldehyde	0.0192	2.564	7952	2.484	VB	0.14
6	5.14	Crotonaldehyde	0.0254	3.379	9637	3.010	BB	0.34
7	5.55	Methacrolein	0.0039	0.525	1585	0.495	BV	0.18
8	6.08	MEK & Butyraldehyde	0.0847	11.289	27417	8.562	VV	0.30
9	6.37	Benzaldehyde	0.0203	2.699	5357	1.673	VB	0.19
10	8.24	Valeraldehyde	0.0320	4.265	8933	2.790	BV	0.28
11	8.71	m-Tolualdehyde	0.0371	4.951	8382	2.618	VB	0.24
12	11.88	Hexaldehyde	0.0236	3.151	5648	1.764	BB	0.30

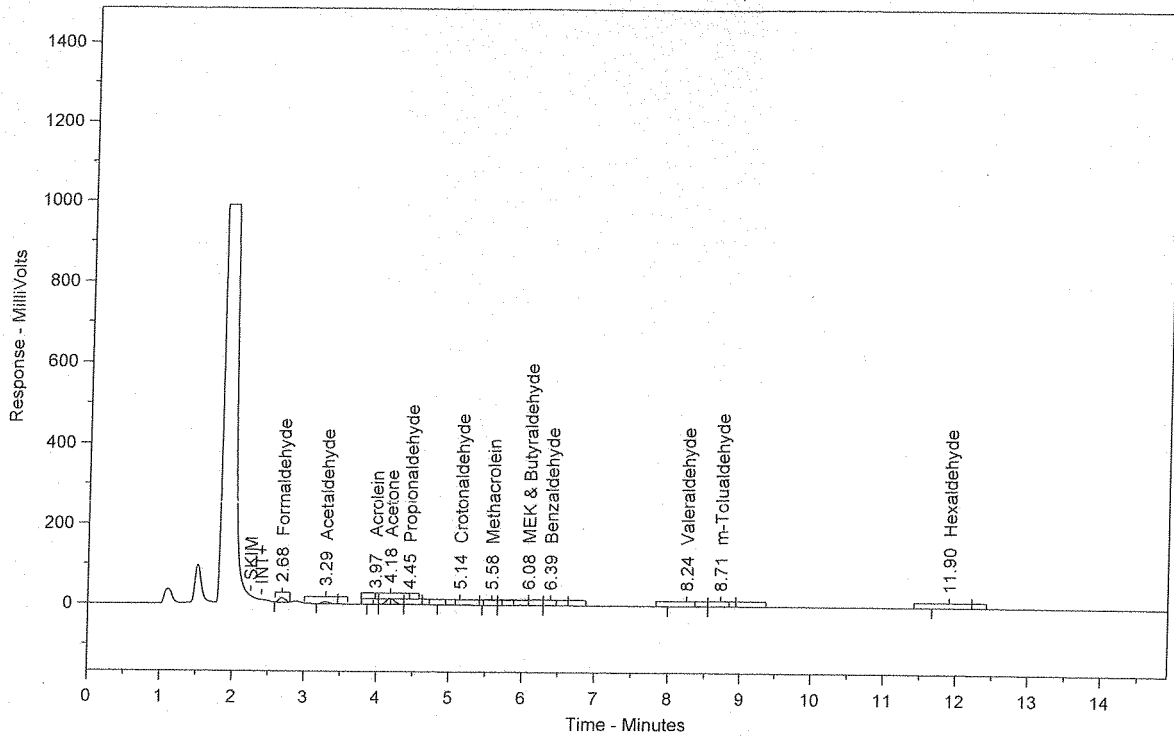
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Total Height = 37668.04

Total Amount = 0.7502316

Chrom Perfect Chromatogram Report

130975-64923 dup



Sample Name = 130975-64923 dup

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0026.RAW

Date Taken (end) = 7/29/2013 5:26:59 PM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 26

Injection Volume = 10

Dilution Factor = 1

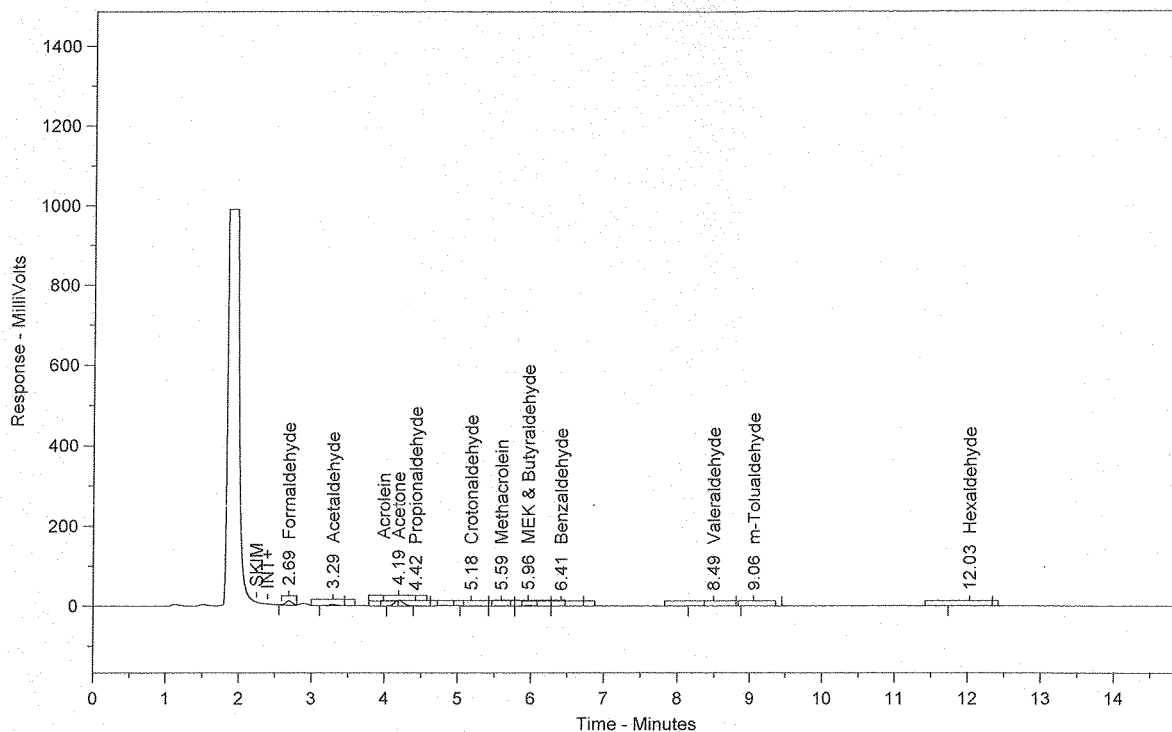
Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.68	Formaldehyde	0.1144	15.588	73594	23.552	BB	0.10
2	3.29	Acetaldehyde	0.0722	9.846	38174	12.217	BB	0.11
3	3.97	Acrolein	0.0037	0.498	1751	0.560	BV	0.10
4	4.18	Acetone	0.2995	40.818	124711	39.911	VV	0.13
5	4.45	Propionaldehyde	0.0185	2.520	7646	2.447	VB	0.14
6	5.14	Crotonaldehyde	0.0251	3.416	9528	3.049	BB	0.41
7	5.58	Methacrolein	0.0031	0.417	1230	0.394	BV	0.15
8	6.08	MEK & Butyraldehyde	0.0864	11.777	27974	8.952	VV	0.31
9	6.39	Benzaldehyde	0.0190	2.590	5027	1.609	VB	0.19
10	8.24	Valeraldehyde	0.0337	4.596	9414	3.013	BV	0.29
11	8.71	m-Tolualdehyde	0.0366	4.994	8269	2.646	VB	0.22
12	11.90	Hexaldehyde	0.0216	2.940	5155	1.650	BB	0.29

Total Area = 312472

Total Height = 36703.65

Total Amount = 0.7337198

130947-64738



Sample Name = 130947-64738

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0031.RAW

Date Taken (end) = 7/29/2013 6:50:16 PM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 31

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.69	Formaldehyde	0.1042	16.831	67035	24.646	BB	0.10
2	3.29	Acetaldehyde	0.0503	8.122	26564	9.767	BB	0.12
3	4.19	Acetone	0.2906	46.945	121001	44.487	SBB	0.13
4	4.42	Propionaldehyde	0.0129	2.082	5329	1.959	TBB	0.12
5	5.18	Crotonaldehyde	0.0304	4.908	11548	4.246	BV	0.17
6	5.59	Methacrolein	0.0248	4.008	9976	3.668	VV	0.15
7	5.96	MEK & Butyraldehyde	0.0503	8.126	16283	5.986	VV	0.17
8	6.41	Benzaldehyde	0.0047	0.760	1245	0.458	VB	0.26
9	8.49	Valeraldehyde	0.0254	4.104	7092	2.607	BB	0.31
10	9.06	m-Tolualdehyde	0.0126	2.028	2832	1.041	BB	0.25
11	12.03	Hexaldehyde	0.0129	2.087	3086	1.135	BB	0.27

Total Area = 271992

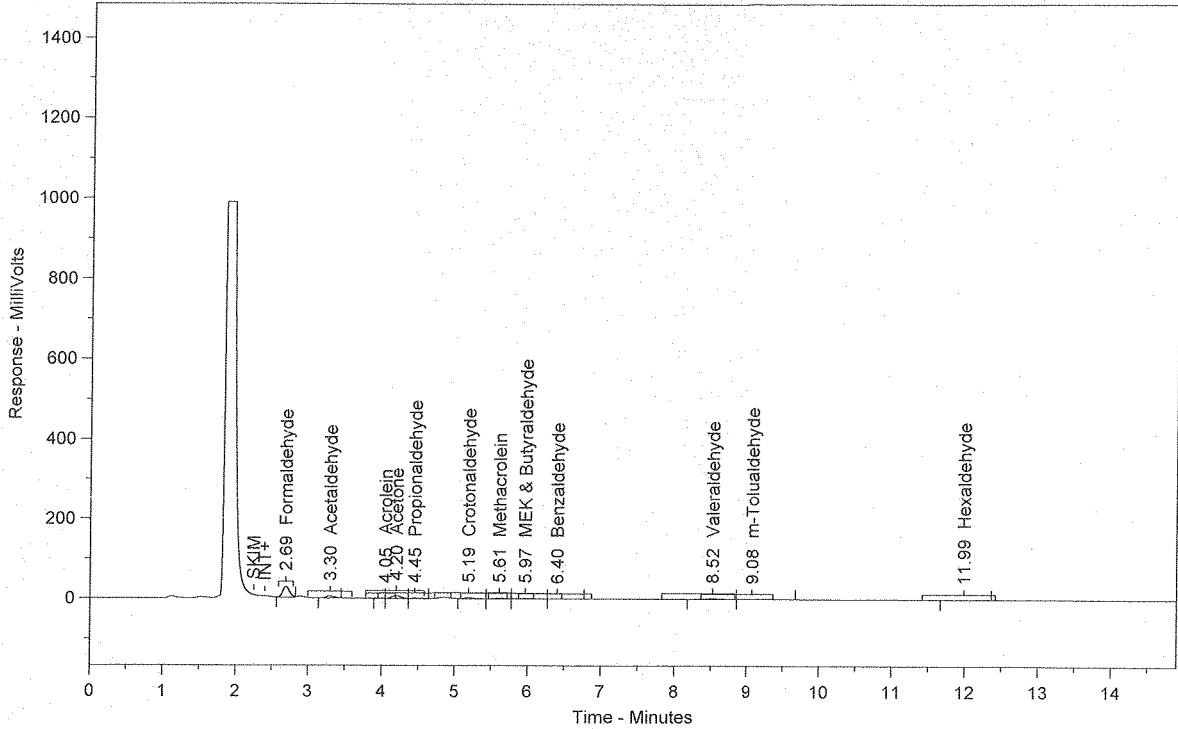
Total Height = 32588.68

Total Amount = 0.6189774

MP
07/30/13

Chrom Perfect Chromatogram Report

130947-64739



Sample Name = 130947-64739

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0032.RAW

Date Taken (end) = 7/29/2013 7:06:55 PM

Method File Name = C:\Chromperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0032.BND

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0032.BND

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 32

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.69	Formaldehyde	0.2853	36.037	183614	48.992	BB	0.10
2	3.30	Acetaldehyde	0.0742	9.369	39199	10.459	BB	0.12
3	4.05	Acrolein	0.0024	0.305	1158	0.309	BV	0.04
4	4.20	Acetone	0.1346	16.995	56037	14.952	VV	0.12
5	4.45	Propionaldehyde	0.0203	2.568	8407	2.243	VB	0.16
6	5.19	Crotonaldehyde	0.0577	7.288	21939	5.854	BV	0.17
7	5.61	Methacrolein	0.0362	4.574	14565	3.886	VV	0.15
8	5.97	MEK & Butyraldehyde	0.0431	5.443	13953	3.723	VV	0.20
9	6.40	Benzaldehyde	0.0119	1.507	3156	0.842	VB	0.25
10	8.52	Valeraldehyde	0.0766	9.676	21389	5.707	BV	0.25
11	9.08	m-Tolualdehyde	0.0326	4.115	7353	1.962	VB	0.44
12	11.99	Hexaldehyde	0.0168	2.123	4017	1.072	BB	0.29

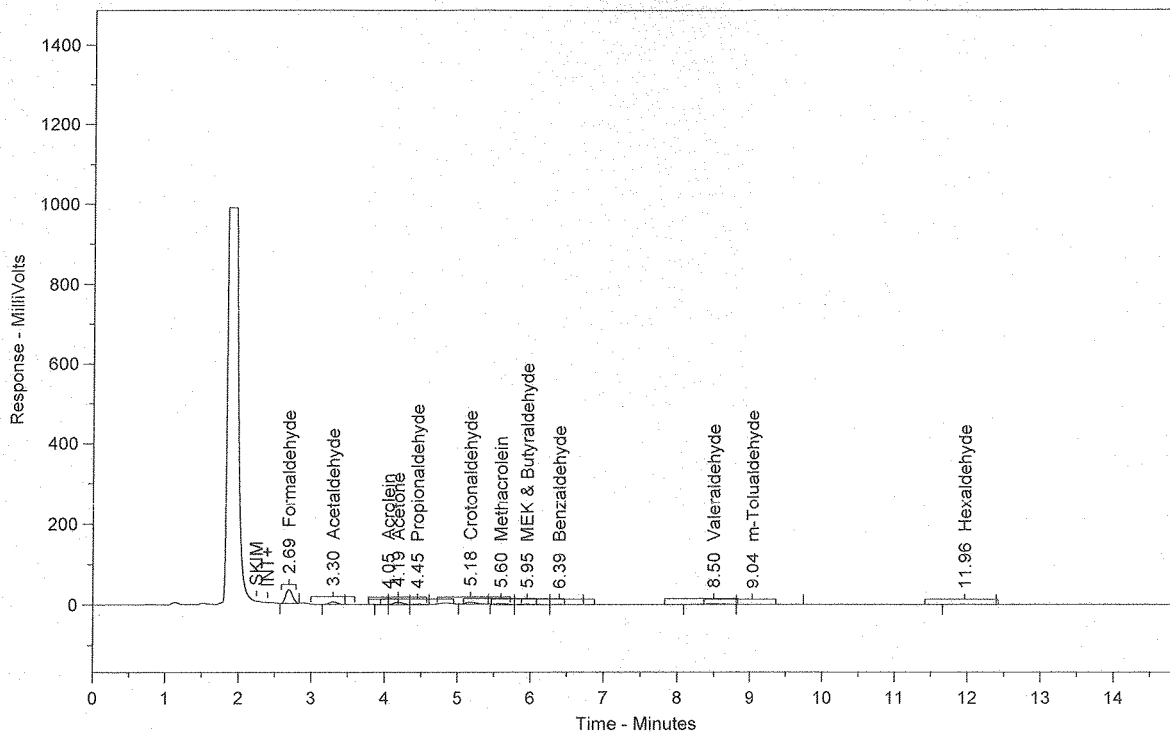
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Total Height = 46837.7

Total Amount = 0.7918223

Chrom Perfect Chromatogram Report

130947-64740



Sample Name = 130947-64740

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0033.RAW

Date Taken (end) = 7/29/2013 7:23:33 PM

Method File Name = C:\Chromperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0033.BND

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0033.BND

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 33

Injection Volume = 10

Dilution Factor = 1

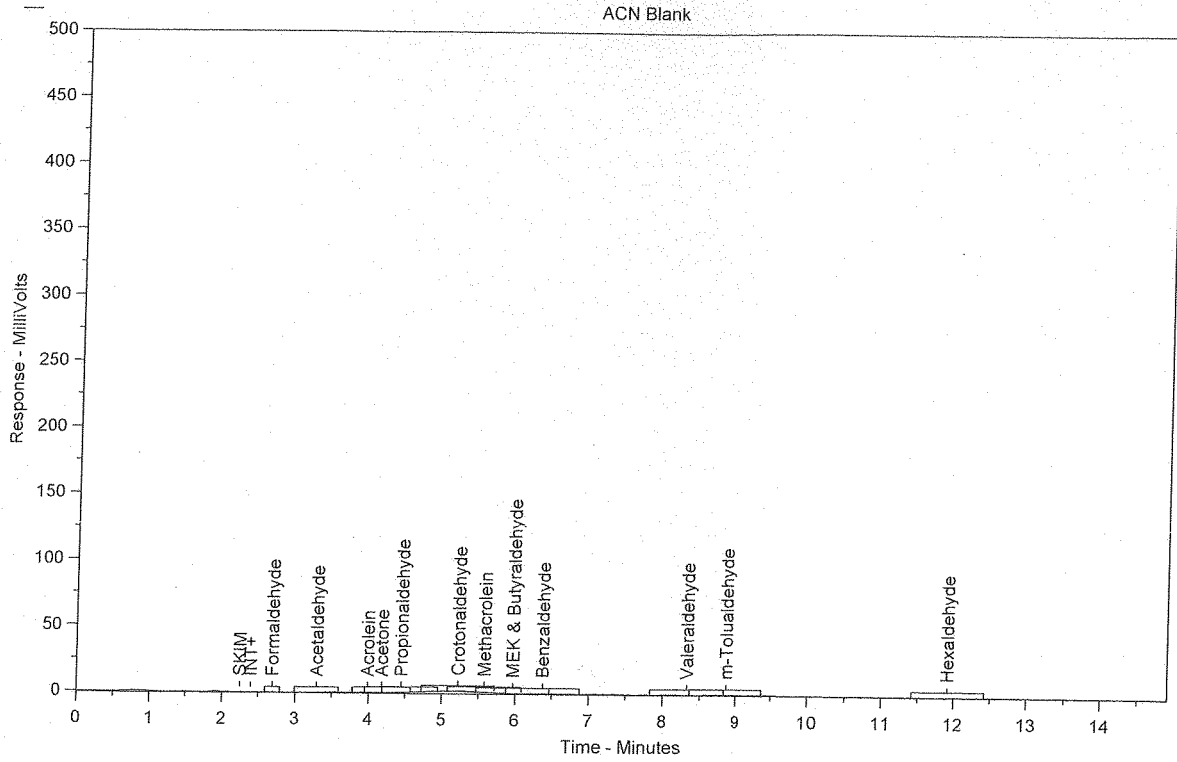
Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.69	Formaldehyde	0.3367	33.159	216653	45.981	BB	0.10
2	3.30	Acetaldehyde	0.0902	8.880	47645	10.112	BB	0.11
3	4.05	Acrolein	0.0042	0.413	2008	0.426	BV	0.05
4	4.19	Acetone	0.1223	12.043	50919	10.807	VV	0.12
5	4.45	Propionaldehyde	0.0308	3.031	12728	2.701	VB	0.12
6	5.18	Crotonaldehyde	0.1261	12.414	47919	10.170	BB	0.17
7	5.60	Methacrolein	0.0749	7.381	30136	6.396	BV	0.16
8	5.95	MEK & Butyraldehyde	0.0572	5.635	18524	3.931	VV	0.27
9	6.39	Benzaldehyde	0.0168	1.659	4456	0.946	VB	0.23
10	8.50	Valeraldehyde	0.0870	8.568	24287	5.155	BV	0.23
11	9.04	m-Tolualdehyde	0.0479	4.720	10817	2.296	VB	0.36
12	11.96	Hexaldehyde	0.0213	2.096	5085	1.079	BB	0.28

Total Area = 471176

Total Height = 58372.96

Total Amount = 1.01538

Chrom Perfect Chromatogram Report



Sample Name = ACN Blank

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0034.RAW

Date Taken (end) = 7/29/2013 7:40:12 PM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Injection Volume = 10

Vial Number = 34

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
--------	-----------	------	--------	-------	------	--------	------	-------

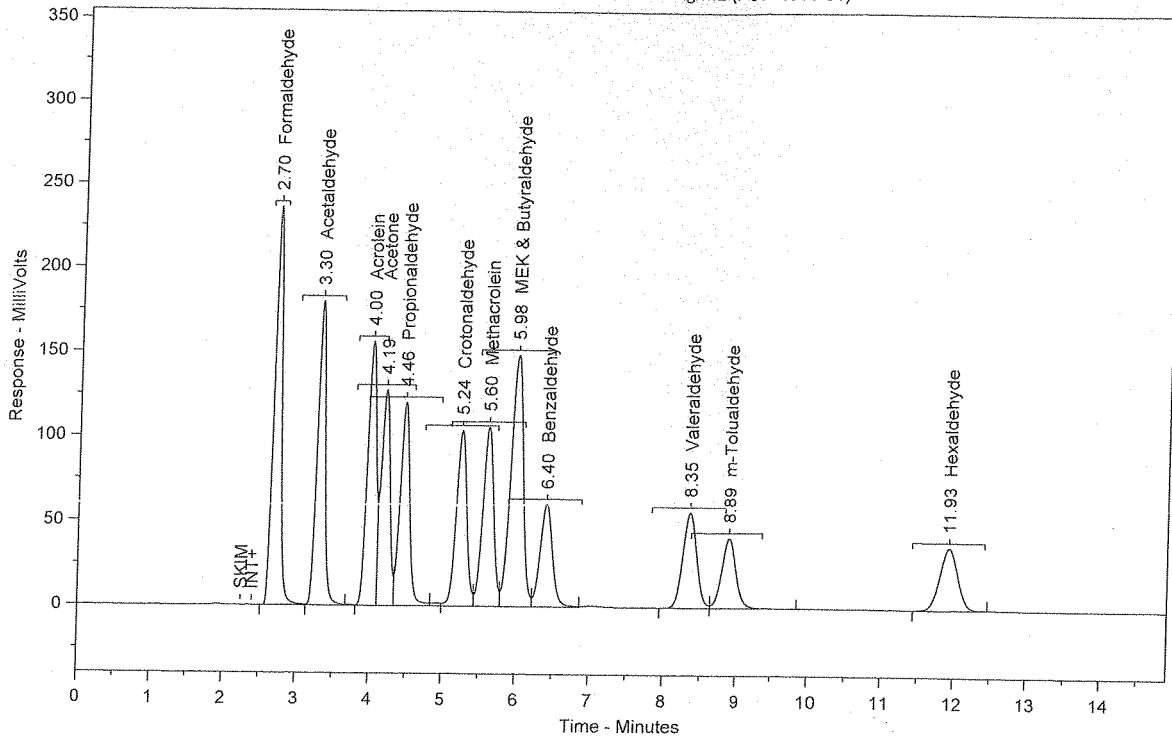
Total Area = 0

Total Height = 0

Total Amount = 0

Chrom Perfect Chromatogram Report

CCV 2.5 ug/mL (PS011613-01)



Sample Name = CCV 2.5 ug/mL (PS011613-01)

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0035.RAW

Date Taken (end) = 7/29/2013 7:56:50 PM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 35

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.70	Formaldehyde	2.6583	7.707	1710555	13.093	SBB	0.11
2	3.30	Acetaldehyde	2.6419	7.660	1396033	10.686	TBV	0.12
3	4.00	Acrolein	2.6522	7.690	1270755	9.727	TVV	0.14
4	4.19	Acetone	2.6324	7.632	1096185	8.391	TVV	0.13
5	4.46	Propionaldehyde	2.6845	7.783	1110024	8.497	TVV	0.14
6	5.24	Crotonaldehyde	2.7296	7.914	1037665	7.943	TVV	0.15
7	5.60	Methacrolein	2.6824	7.777	1078598	8.256	TVV	0.15
8	5.98	MEK & Butyraldehyde	5.2876	15.331	1711714	13.102	TVV	0.17
9	6.40	Benzaldehyde	2.6450	7.669	699698	5.356	TVB	0.17
10	8.35	Valeraldehyde	2.6336	7.636	735254	5.628	BV	0.20
11	8.89	m-Tolualdehyde	2.6171	7.588	590605	4.521	VB	0.22
12	11.93	Hexaldehyde	2.6255	7.612	627305	4.802	BB	0.27

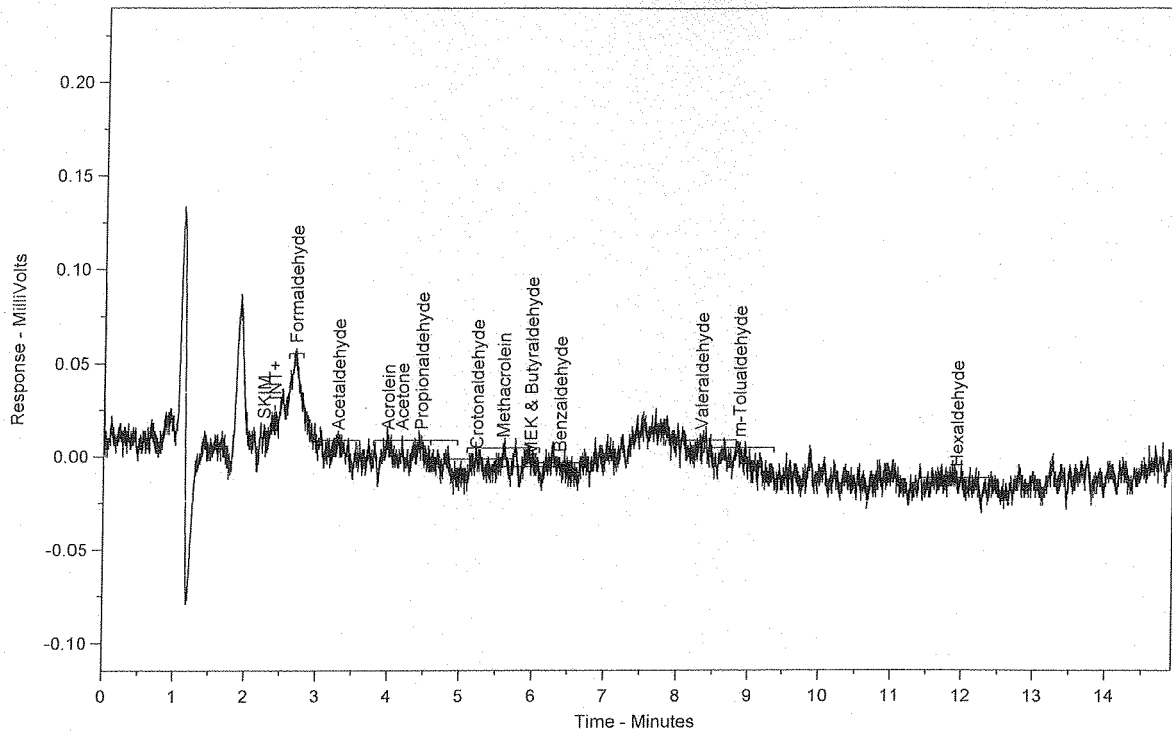
Total Area = 1.306439E+07

Total Height = 1375358

Total Amount = 34.49022

Chrom Perfect Chromatogram Report

TO-11 Method Blank



Sample Name = TO-11 Method Blank

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\072913\TO-11\072913.0036.RAW

Date Taken (end) = 7/29/2013 8:13:28 PM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

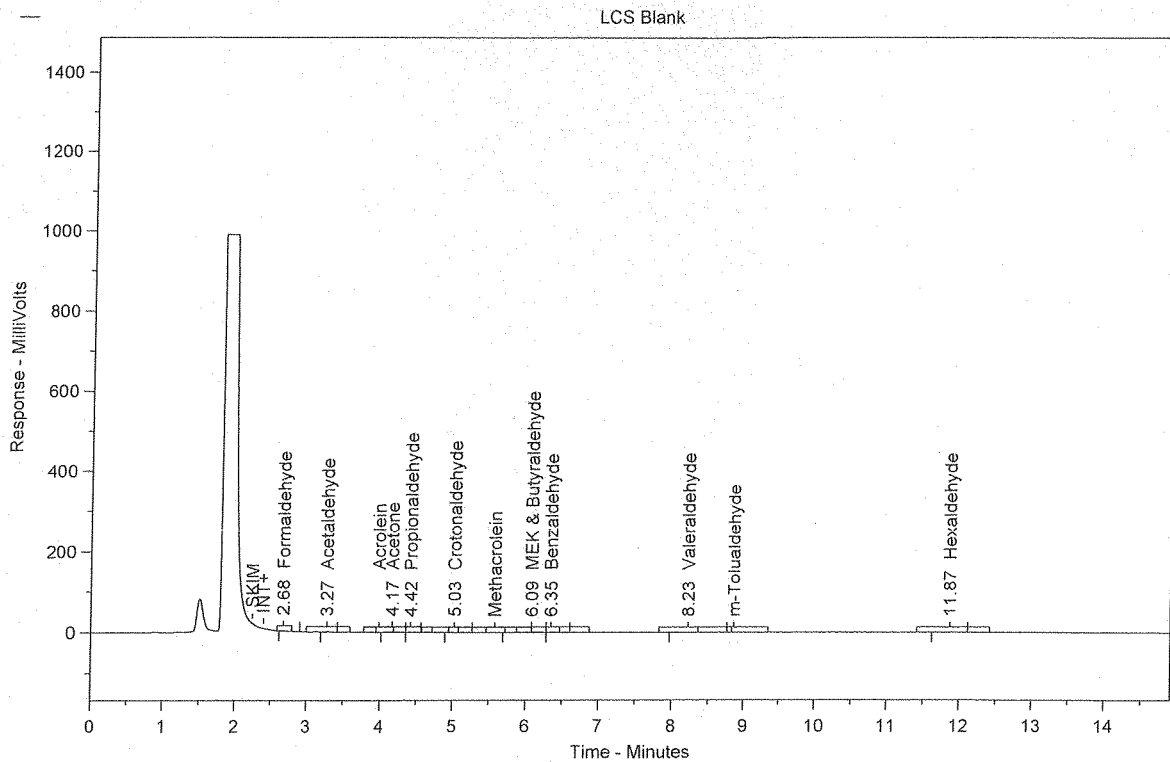
Vial Number = 36

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
Total Area = 0			Total Height = 0		Total Amount = 0			

Chrom Perfect Chromatogram Report



Sample Name = LCS Blank

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0037.RAW

Date Taken (end) = 7/29/2013 8:30:07 PM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 37

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.68	Formaldehyde	0.0090	7.008	5767	12.534	BB	0.16
2	3.27	Acetaldehyde	0.0065	5.050	3413	7.417	BB	0.15
3	4.17	Acetone	0.0247	19.315	10285	22.356	BV	0.13
4	4.42	Propionaldehyde	0.0025	1.947	1030	2.238	VB	0.14
5	5.03	Crotonaldehyde	0.0038	2.992	1455	3.162	BB	0.27
6	6.09	MEK & Butyraldehyde	0.0382	29.857	12360	26.865	BV	0.23
7	6.35	Benzaldehyde	0.0113	8.862	2998	6.516	VB	0.19
8	8.23	Valeraldehyde	0.0266	20.835	7438	16.168	BB	0.25
9	11.87	Hexaldehyde	0.0053	4.133	1263	2.745	BB	0.33

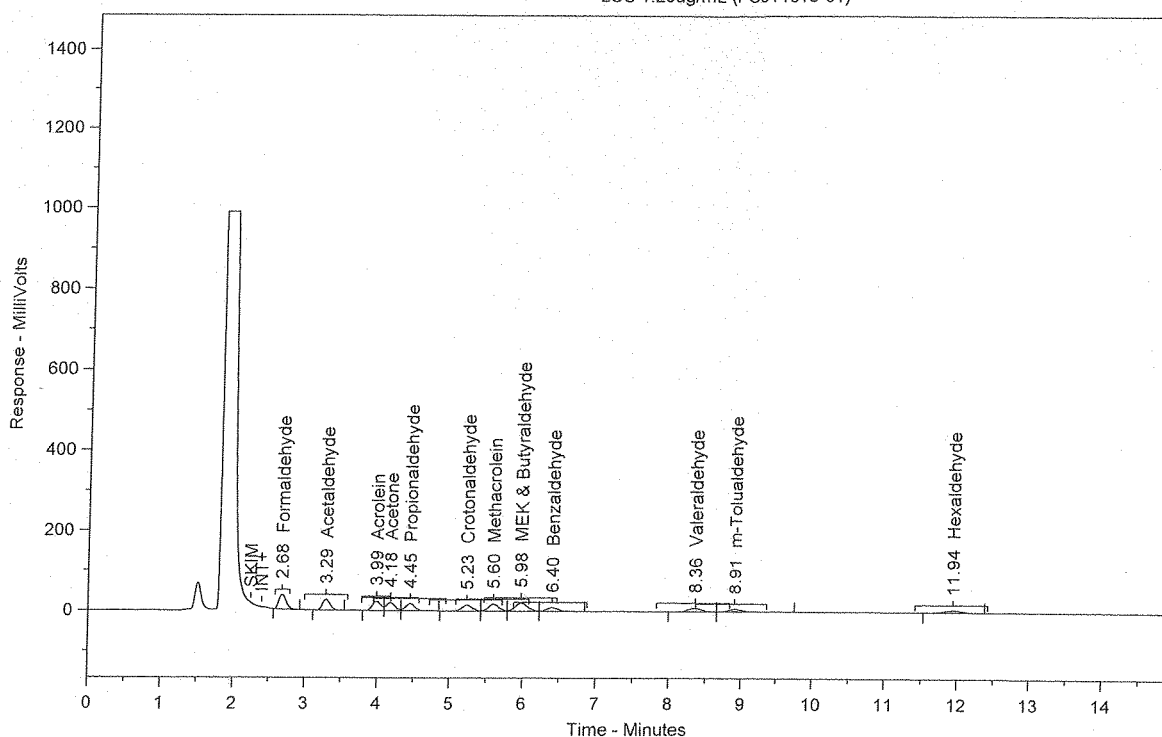
Total Area = 46008.46

Total Height = 4400.375

Total Amount = 0.1278801

Chrom Perfect Chromatogram Report

LCS 1.25ug/mL (PS011013-01)



Sample Name = LCS 1.25ug/mL (PS011013-01)

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0038.RAW

Date Taken (end) = 7/29/2013 8:46:45 PM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 38

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.68	Formaldehyde	0.3930	7.806	252894	13.253	BB	0.11
2	3.29	Acetaldehyde	0.3760	7.468	198676	10.412	BB	0.12
3	3.99	Acrolein	0.3877	7.699	185735	9.734	BV	0.14
4	4.18	Acetone	0.4082	8.108	169994	8.909	VV	0.13
5	4.45	Propionaldehyde	0.3837	7.620	158637	8.313	VB	0.14
6	5.23	Crotonaldehyde	0.3774	7.496	143481	7.519	BV	0.15
7	5.60	Methacrolein	0.4196	8.334	168720	8.842	VV	0.15
8	5.98	MEK & Butyraldehyde	0.7335	14.567	237437	12.443	VV	0.17
9	6.40	Benzaldehyde	0.3780	7.507	99988	5.240	VB	0.17
10	8.36	Valeraldehyde	0.4055	8.054	113209	5.933	BV	0.20
11	8.91	m-Tolualdehyde	0.3880	7.706	87553	4.588	VB	0.22
12	11.94	Hexaldehyde	0.3845	7.636	91858	4.814	BB	0.27

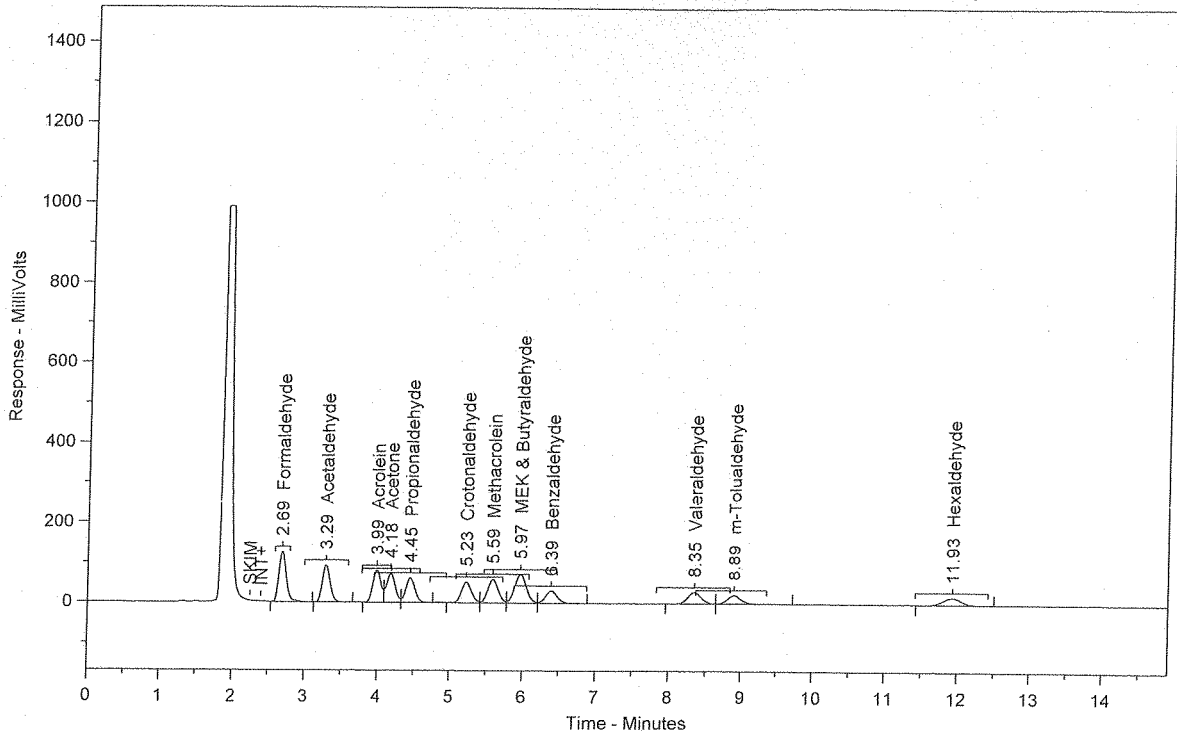
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Total Height = 203132.8

Total Amount = 5.034921

Chrom Perfect Chromatogram Report

MS 130947-64741 1.25 ppm [(PS061113-01x2)]



Sample Name = MS 130947-64741 1.25 ppm [(PS061113-01x2)]

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0039.RAW

Date Taken (end) = 7/29/2013 9:03:26 PM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 39

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.69	Formaldehyde	1.3700	7.906	881552	13.382	BB	0.11
2	3.29	Acetaldehyde	1.3209	7.623	697996	10.596	BB	0.12
3	3.99	Acrolein	1.3260	7.653	635328	9.644	BV	0.13
4	4.18	Acetone	1.4509	8.373	604179	9.172	VV	0.13
5	4.45	Propionaldehyde	1.3147	7.588	543632	8.252	VV	0.14
6	5.23	Crotonaldehyde	1.3186	7.610	501288	7.610	VV	0.15
7	5.59	Methacrolein	1.4570	8.408	585855	8.893	VV	0.15
8	5.97	MEK & Butyraldehyde	2.4977	14.414	808555	12.274	VV	0.17
9	6.39	Benzaldehyde	1.3127	7.576	347245	5.271	VB	0.17
10	8.35	Valeraldehyde	1.3273	7.660	370563	5.625	BV	0.20
11	8.89	m-Tolualdehyde	1.3176	7.604	297333	4.514	VB	0.21
12	11.93	Hexaldehyde	1.3142	7.584	313991	4.766	BB	0.27

Total Area = 6587518

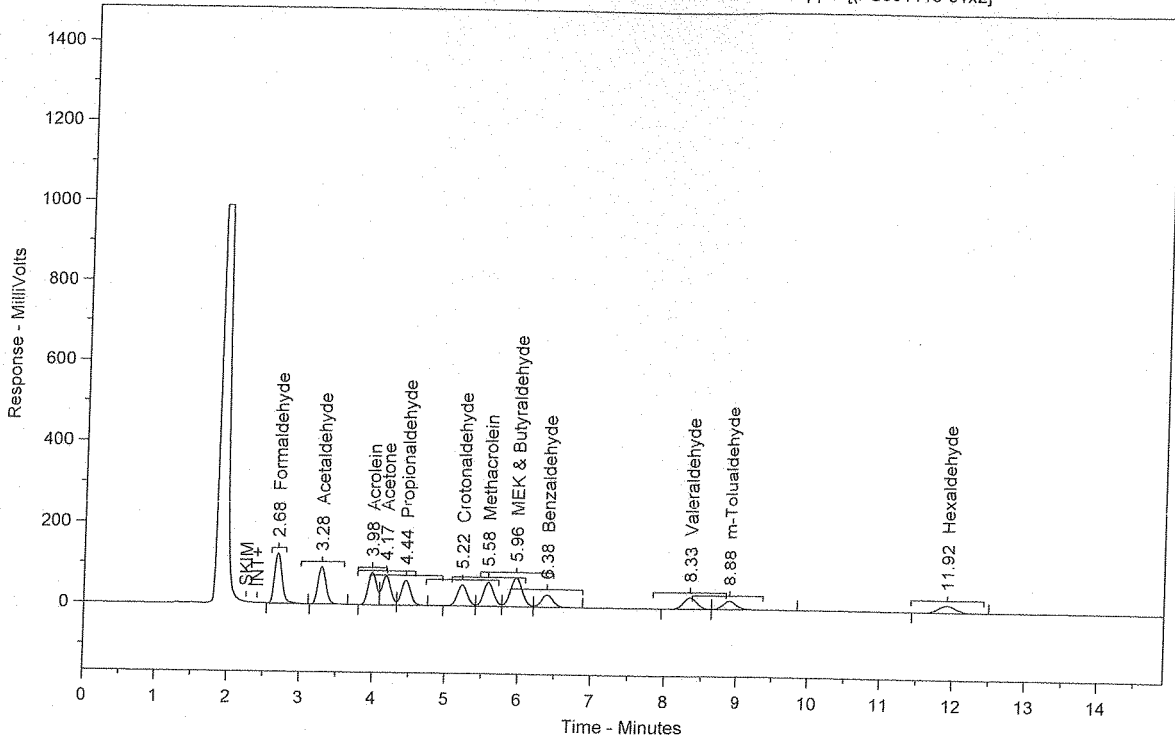
Total Height = 706034.6

Total Amount = 17.32757

HP
07/30/13

Chrom Perfect Chromatogram Report

MSD 130947-64741 1.25 ppm [(PS061113-01x2)]



Sample Name = MSD 130947-64741 1.25 ppm [(PS061113-01x2)]

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0040.RAW

Date Taken (end) = 7/29/2013 9:20:05 PM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 40

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.68	Formaldehyde	1.3677	7.880	880079	13.347	BB	0.11
2	3.28	Acetaldehyde	1.3175	7.591	696196	10.558	BB	0.12
3	3.98	Acrolein	1.3253	7.636	634981	9.630	BV	0.13
4	4.17	Acetone	1.4572	8.396	606801	9.202	VV	0.13
5	4.44	Propionaldehyde	1.3145	7.573	543536	8.243	VV	0.14
6	5.22	Crotonaldehyde	1.3197	7.604	501705	7.609	VV	0.15
7	5.58	Methacrolein	1.4530	8.371	584262	8.861	VV	0.15
8	5.96	MEK & Butyraldehyde	2.5079	14.449	811876	12.313	VV	0.17
9	6.38	Benzaldehyde	1.3163	7.584	348207	5.281	VB	0.17
10	8.33	Valeraldehyde	1.3300	7.662	371297	5.631	BV	0.20
11	8.88	m-Tolualdehyde	1.3311	7.669	300401	4.556	VB	0.22
12	11.92	Hexaldehyde	1.3165	7.585	314546	4.770	BB	0.27

Total Area = 6593886

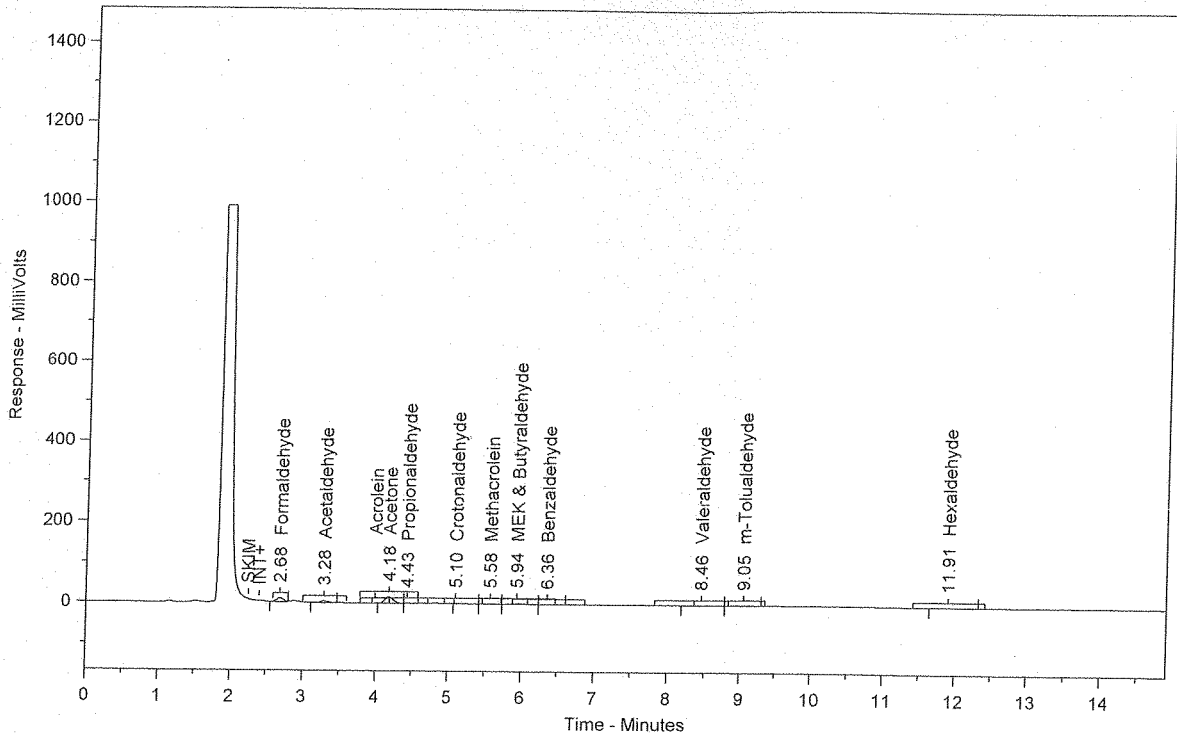
Total Height = 707263.3

Total Amount = 17.35678

HP
07/30/13

Chrom Perfect Chromatogram Report

130947-64741



Sample Name = 130947-64741

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0041.RAW

Date Taken (end) = 7/29/2013 9:36:45 PM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 41

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.68	Formaldehyde	0.0957	14.654	61550	21.724	BB	0.10
2	3.28	Acetaldehyde	0.0624	9.566	32994	11.645	BB	0.12
3	4.18	Acetone	0.3092	47.362	128736	45.437	BV	0.13
4	4.43	Propionaldehyde	0.0153	2.340	6316	2.229	VB	0.12
5	5.10	Crotonaldehyde	0.0186	2.846	7063	2.493	BV	0.19
6	5.58	Methacrolein	0.0220	3.370	8845	3.122	VV	0.14
7	5.94	MEK & Butyraldehyde	0.0648	9.930	20982	7.406	VV	0.17
8	6.36	Benzaldehyde	0.0048	0.743	1283	0.453	VB	0.24
9	8.46	Valeraldehyde	0.0349	5.340	9732	3.435	BV	0.26
10	9.05	m-Tolualdehyde	0.0132	2.021	2977	1.051	VB	0.31
11	11.91	Hexaldehyde	0.0119	1.828	2851	1.006	BB	0.30

Total Area = 283329.2

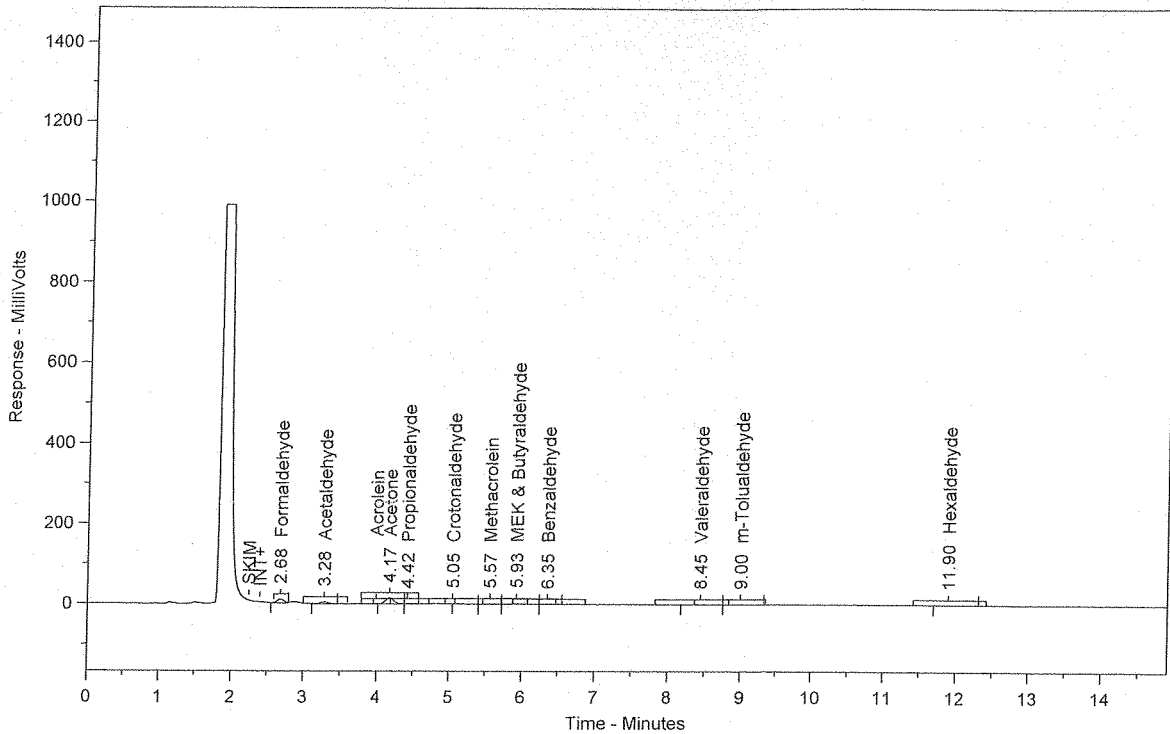
Total Height = 33790.96

Total Amount = 0.6527441

HP
07/30/13

Chrom Perfect Chromatogram Report

130947-64741 dup



Sample Name = 130947-64741 dup

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0042.RAW

Date Taken (end) = 7/29/2013 9:53:23 PM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 42

Injection Volume = 10

Dilution Factor = 1

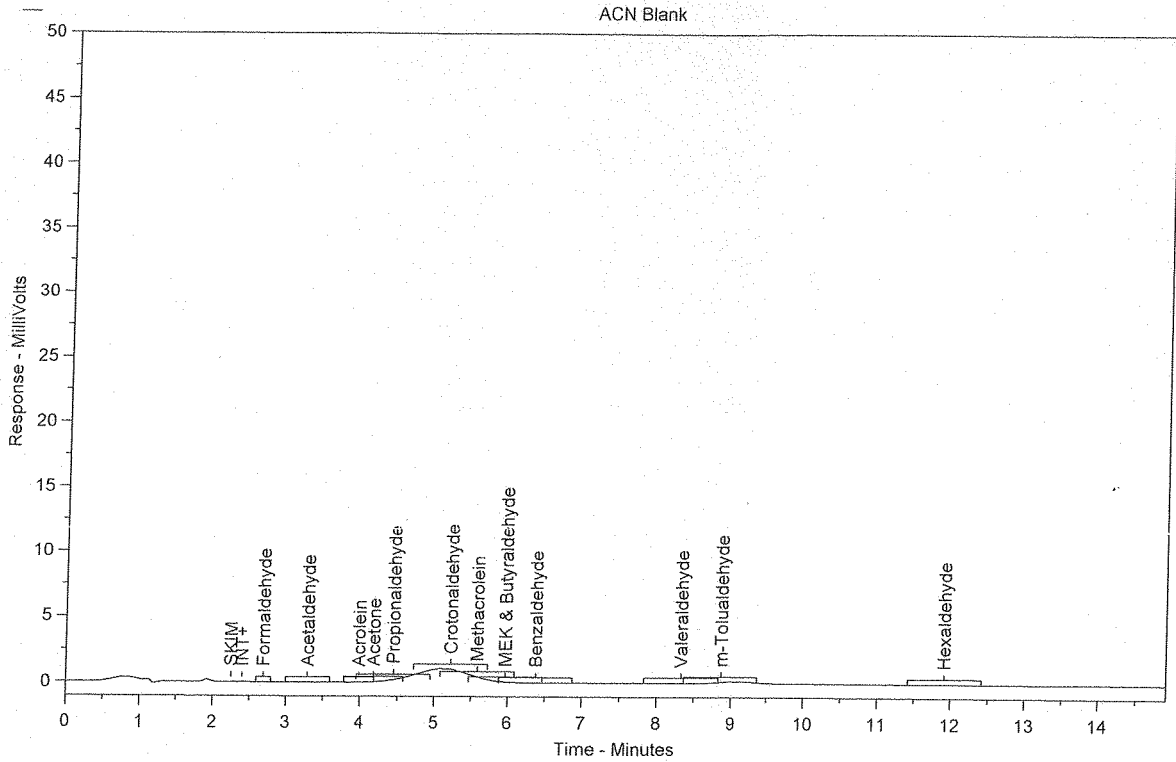
Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.68	Formaldehyde	0.0936	14.227	60224	21.296	BB	0.10
2	3.28	Acetaldehyde	0.0611	9.286	32280	11.415	BB	0.12
3	4.17	Acetone	0.3060	46.511	127413	45.055	BV	0.13
4	4.42	Propionaldehyde	0.0147	2.238	6087	2.152	VB	0.11
5	5.05	Crotonaldehyde	0.0190	2.894	7237	2.559	BV	0.20
6	5.57	Methacrolein	0.0218	3.313	8763	3.099	VV	0.14
7	5.93	MEK & Butyraldehyde	0.0675	10.264	21859	7.730	VV	0.17
8	6.35	Benzaldehyde	0.0040	0.615	1070	0.378	VB	0.22
9	8.45	Valeraldehyde	0.0354	5.382	9885	3.495	BV	0.24
10	9.00	m-Tolualdehyde	0.0232	3.529	5240	1.853	VB	0.32
11	11.90	Hexaldehyde	0.0115	1.742	2738	0.968	BB	0.30

Total Area = 282796

Total Height = 33439.94

Total Amount = 0.6578631

Chrom Perfect Chromatogram Report



Sample Name = ACN Blank

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0045.RAW

Date Taken (end) = 7/29/2013 10:43:18 PM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 45

Injection Volume = 10

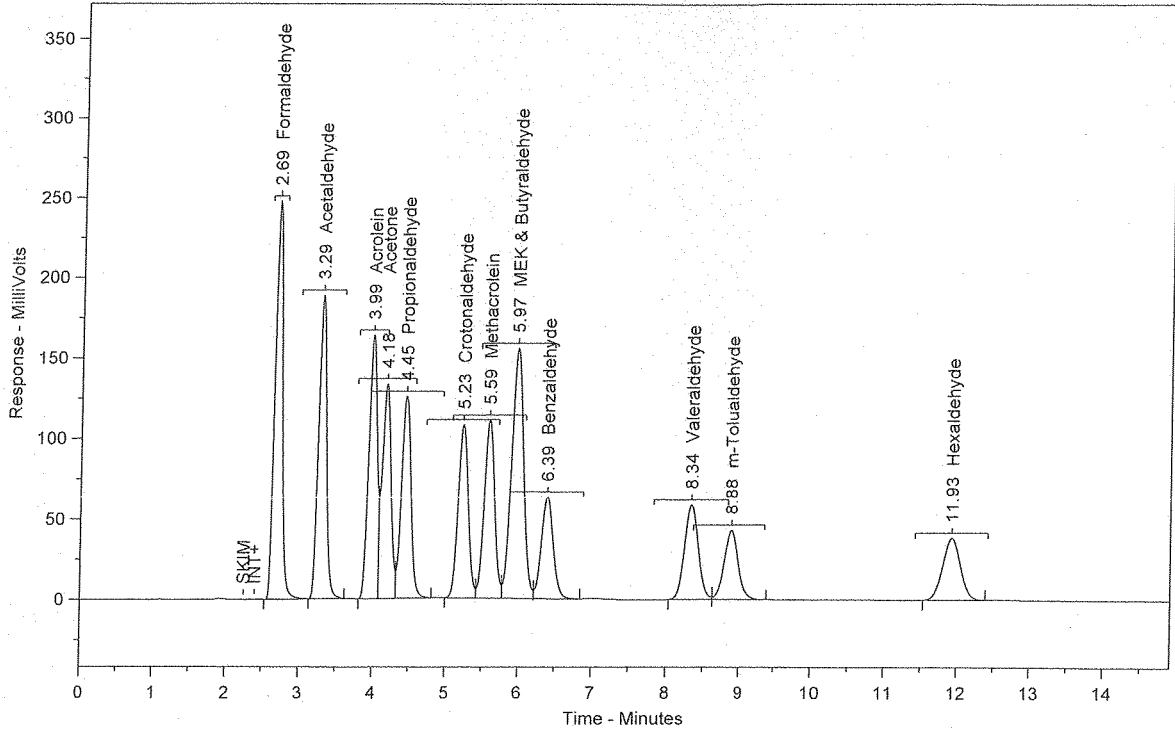
Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
Total Area = 0			Total Height = 0		Total Amount = 0			

HW
07/30/13

Chrom Perfect Chromatogram Report

CCV 2.5 ug/mL (PS011613-01)



Sample Name = CCV 2.5 ug/mL (PS011613-01)

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0046.RAW

Date Taken (end) = 7/29/2013 10:59:56 PM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET
Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL
Concentration Units = ug/ml

Run Time = 14.89889
Injection Volume = 10

Vial Number = 46
Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.69	Formaldehyde	2.7225	7.683	1751824	13.057	SBB	0.11
2	3.29	Acetaldehyde	2.7259	7.693	1440379	10.736	TBB	0.12
3	3.99	Acrolein	2.7408	7.735	1313198	9.788	BV	0.13
4	4.18	Acetone	2.7419	7.738	1141751	8.510	VV	0.13
5	4.45	Propionaldehyde	2.7206	7.678	1124946	8.385	VB	0.14
6	5.23	Crotonaldehyde	2.7347	7.718	1039634	7.749	BV	0.15
7	5.59	Methacrolein	2.7487	7.757	1105257	8.238	VV	0.15
8	5.97	MEK & Butyraldehyde	5.4492	15.379	1764031	13.148	VV	0.17
9	6.39	Benzaldehyde	2.6894	7.590	711424	5.303	VB	0.17
10	8.34	Valeraldehyde	2.7361	7.722	763870	5.694	BV	0.20
11	8.88	m-Tolualdehyde	2.6905	7.593	607172	4.526	VB	0.22
12	11.93	Hexaldehyde	2.7332	7.714	653021	4.867	BB	0.27

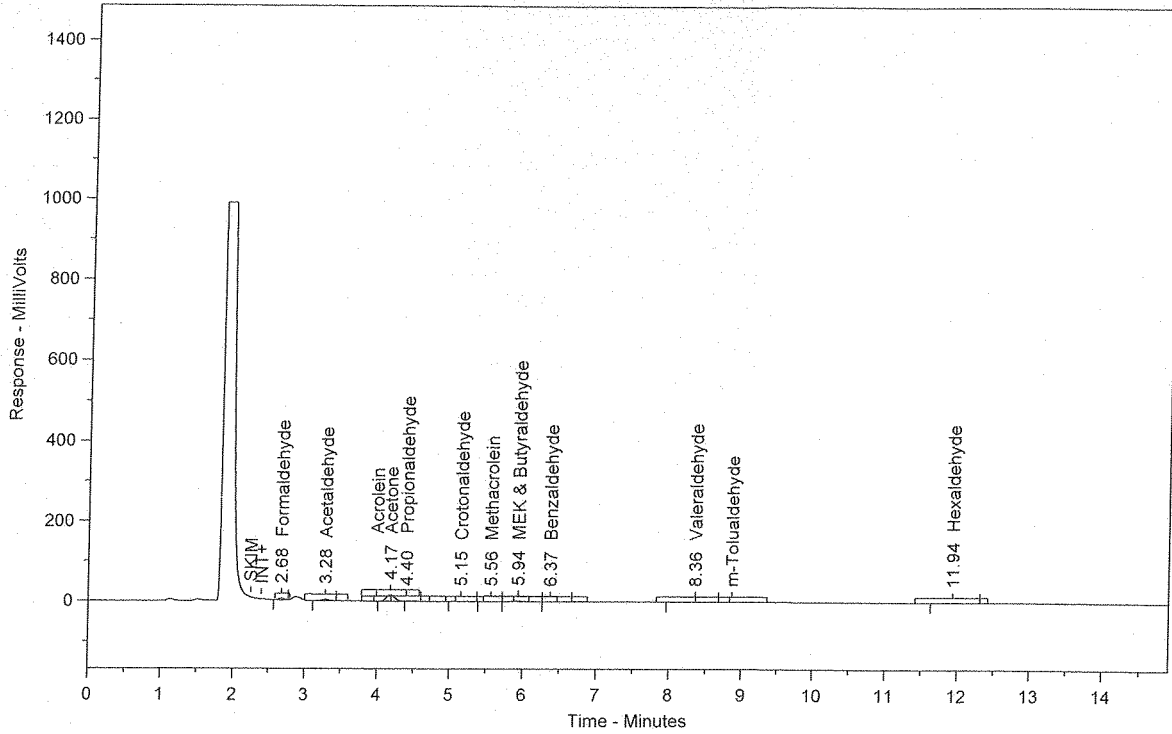
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Total Height = 1435328

Total Amount = 35.43333

Chrom Perfect Chromatogram Report

130978-64929



Sample Name = 130978-64929

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0047.RAW

Date Taken (end) = 7/29/2013 11:16:34 PM

Method File Name = C:\Chromperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0047.BND

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0047.BND

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 47

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.68	Formaldehyde	0.0378	6.915	24293	10.573	BB	0.09
2	3.28	Acetaldehyde	0.0566	10.358	29882	13.006	BB	0.12
3	4.17	Acetone	0.3130	57.339	130354	56.734	SBB	0.13
4	4.40	Propionaldehyde	0.0157	2.877	6495	2.827	TBB	0.11
5	5.15	Crotonaldehyde	0.0105	1.932	4009	1.745	BB	0.20
6	5.56	Methacrolein	0.0105	1.916	4207	1.831	BV	0.15
7	5.94	MEK & Butyraldehyde	0.0621	11.373	20099	8.748	VV	0.17
8	6.37	Benzaldehyde	0.0045	0.818	1181	0.514	VB	0.23
9	8.36	Valeraldehyde	0.0199	3.640	5547	2.414	BB	0.35
10	11.94	Hexaldehyde	0.0155	2.833	3695	1.608	BB	0.27

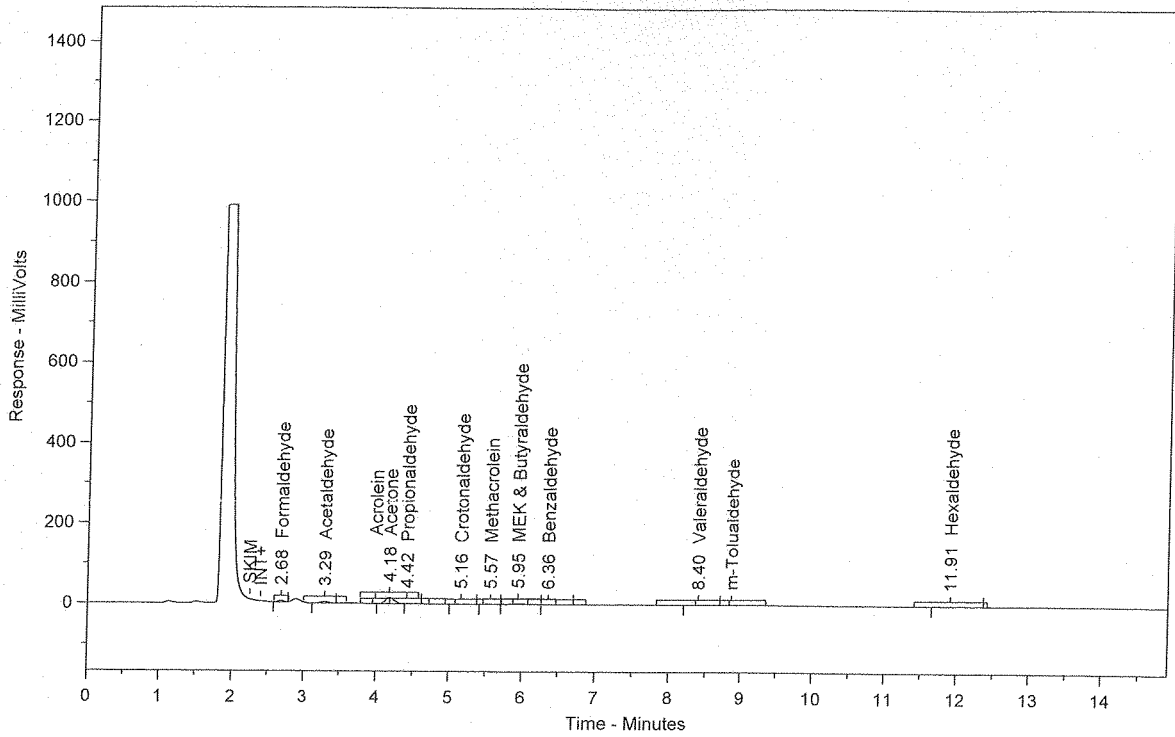
Total Area = 229762.8

Total Height = 27462.08

Total Amount = 0.5459465

Chrom Perfect Chromatogram Report

130978-64929 dup



Sample Name = 130978-64929 dup

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0048.RAW

Date Taken (end) = 7/29/2013 11:33:12 PM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 48

Injection Volume = 10

Dilution Factor = 1

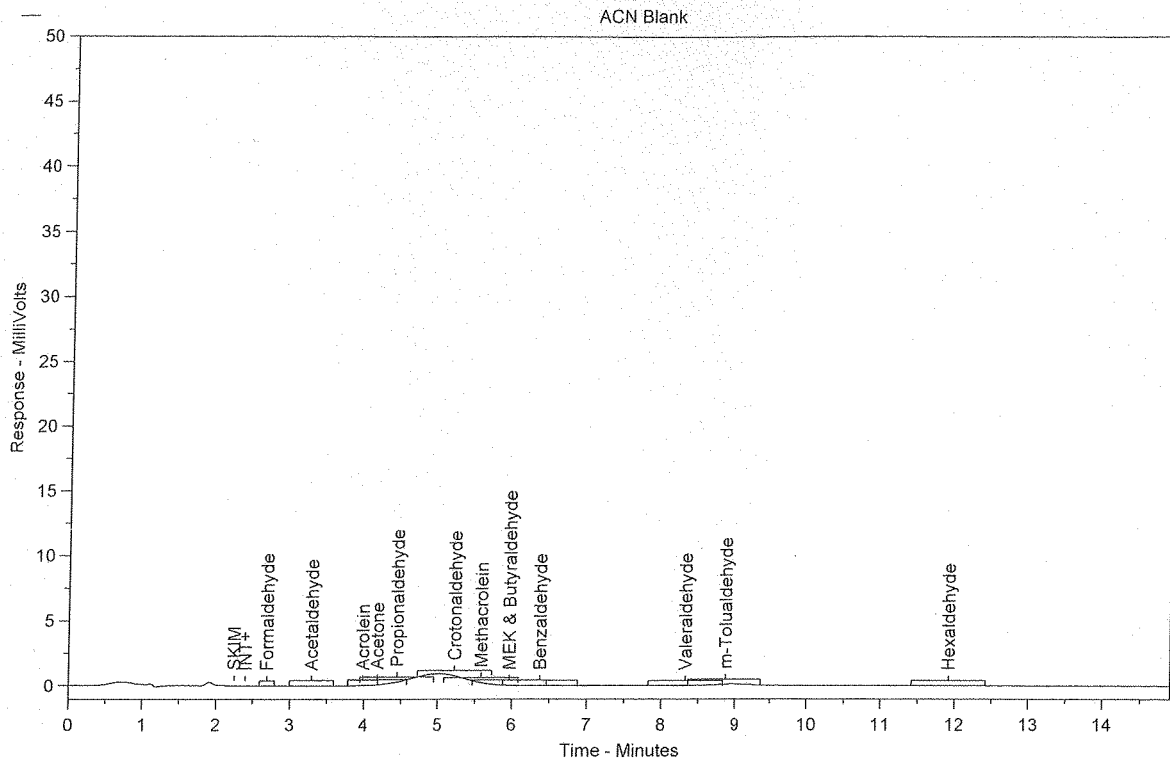
Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.68	Formaldehyde	0.0367	6.709	23616	10.279	BB	0.09
2	3.29	Acetaldehyde	0.0563	10.293	29750	12.949	BB	0.12
3	4.18	Acetone	0.3135	57.318	130558	56.827	SBB	0.13
4	4.42	Propionaldehyde	0.0162	2.967	6711	2.921	TBB	0.11
5	5.16	Crotonaldehyde	0.0100	1.826	3796	1.652	BB	0.21
6	5.57	Methacrolein	0.0099	1.804	3969	1.727	BV	0.15
7	5.95	MEK & Butyraldehyde	0.0650	11.877	21032	9.154	VV	0.17
8	6.36	Benzaldehyde	0.0046	0.836	1210	0.527	VB	0.26
9	8.40	Valeraldehyde	0.0194	3.544	5412	2.356	BB	0.28
10	11.91	Hexaldehyde	0.0155	2.825	3692	1.607	BB	0.28

Total Area = 229745.1

Total Height = 27375.18

Total Amount = 0.5469944

Chrom Perfect Chromatogram Report



Sample Name = ACN Blank

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0050.RAW

Date Taken (end) = 7/30/2013 12:06:33 AM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Injection Volume = 10

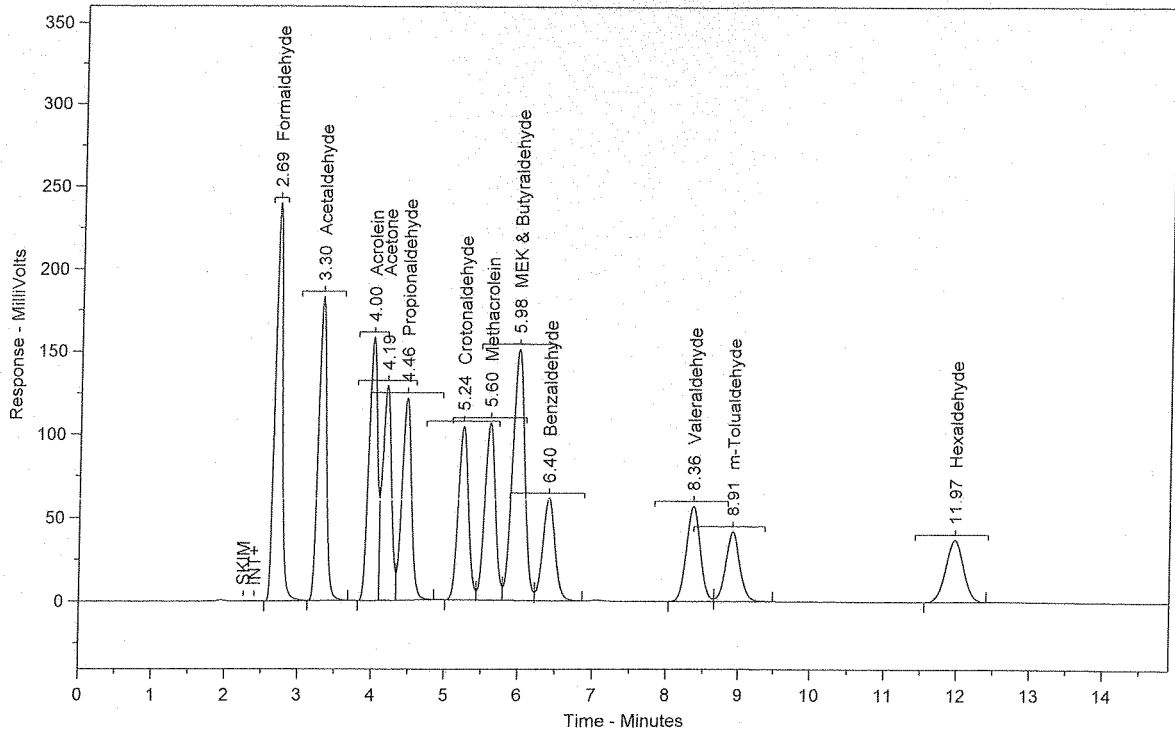
Vial Number = 50

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
Total Area = 0			Total Height = 0		Total Amount = 0			

Chrom Perfect Chromatogram Report

CCV 2.5 ug/mL (PS011613-01)



Sample Name = CCV 2.5 ug/mL (PS011613-01)

Instrument = HPLC #1

Raw File Name = C:\Chromperfect 2\Data\HPLC #1\2013\072913TO-11\072913.0051.RAW

Date Taken (end) = 7/30/2013 12:23:12 AM

Method File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.MET

Method Description=TO-11A Carbonyls

Calibration File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\061113 TO-11A.CAL

Concentration Units = ug/ml

Run Time = 14.89889

Vial Number = 51

Injection Volume = 10

Dilution Factor = 1

Peak #	Ret. Time	Name	Amount	Amt %	Area	Area %	Type	Width
1	2.69	Formaldehyde	2.6320	7.654	1693626	13.015	SBB	0.11
2	3.30	Acetaldehyde	2.6445	7.690	1397389	10.739	TBB	0.12
3	4.00	Acrolein	2.6787	7.789	1283426	9.863	BV	0.14
4	4.19	Acetone	2.6278	7.641	1094247	8.409	VV	0.13
5	4.46	Propionaldehyde	2.6353	7.663	1089685	8.374	VB	0.14
6	5.24	Crotonaldehyde	2.6478	7.700	1006604	7.736	BV	0.15
7	5.60	Methacrolein	2.6423	7.683	1062460	8.165	VV	0.15
8	5.98	MEK & Butyraldehyde	5.3267	15.490	1724400	13.252	VV	0.17
9	6.40	Benzaldehyde	2.6088	7.586	690105	5.303	VB	0.17
10	8.36	Valeraldehyde	2.6621	7.741	743205	5.711	BV	0.20
11	8.91	m-Tolualdehyde	2.6311	7.651	593759	4.563	VB	0.22
12	11.97	Hexaldehyde	2.6521	7.712	633650	4.870	BB	0.27

Total Area = 1.301255E+07

Total Height = 1390102

Total Amount = 34.38918

File Name = C:\Chromperfect 2\Methods and Sequences\#1 HPLC #1\2013\072913 (TO-11).SEQ

File Date = 7/29/2013 9:19:38 AM

Analyst=

Entry #	Raw File Name	Method File Name	Sample Name	Vial #	DF
1	072913.0001.raw	061113 TO-11A.MET	ACN Blank	1	1
2	072913.0002.raw	061113 TO-11A.MET	CCV 2.5 ug/mL (PS061113-01)	2	1
3	072913.0003.raw	061113 TO-11A.MET	SS 1.25 ppm (PS011613-01)	3	1
4	072913.0004.raw	061113 TO-11A.MET	TO-11 Method Blank	4	1
5	072913.0005.raw	061113 TO-11A.MET	LCS Blank	5	1
6	072913.0006.raw	061113 TO-11A.MET	LCS 1.25ug/mL (PS011013-01)	6	1
7	072913.0007.raw	061113 TO-11A.MET	MS 130935-64678 1.25 ppm [(PS061113-01x2]	7	1
8	072913.0008.raw	061113 TO-11A.MET	MSD 130935-64678 1.25 ppm [(PS061113-01x2]	8	1
9	072913.0009.raw	061113 TO-11A.MET	130935-64678	9	1
10	072913.0010.raw	061113 TO-11A.MET	130935-64678 dup	10	1
11	072913.0011.raw	061113 TO-11A.MET	130936-64679	11	1
12	072913.0012.raw	061113 TO-11A.MET	ACN Blank	12	1
13	072913.0013.raw	061113 TO-11A.MET	CCV 2.5 ug/mL (PS011613-01)	13	1
14	072913.0014.raw	061113 TO-11A.MET	130975-64924	14	1
15	072913.0015.raw	061113 TO-11A.MET	130975-64924 dup	15	1
16	072913.0016.raw	061113 TO-11A.MET	130975-64916	16	1
17	072913.0017.raw	061113 TO-11A.MET	130975-64917	17	1
18	072913.0018.raw	061113 TO-11A.MET	130975-64918	18	1
19	072913.0019.raw	061113 TO-11A.MET	130975-64919	19	1
20	072913.0020.raw	061113 TO-11A.MET	130975-64920	20	1
21	072913.0021.raw	061113 TO-11A.MET	130975-64921	21	1
22	072913.0022.raw	061113 TO-11A.MET	130975-64922	22	1
23	072913.0023.raw	061113 TO-11A.MET	ACN Blank	23	1
24	072913.0024.raw	061113 TO-11A.MET	CCV 2.5 ug/mL (PS011613-01)	24	1
25	072913.0025.raw	061113 TO-11A.MET	130975-64923	25	1
26	072913.0026.raw	061113 TO-11A.MET	130975-64923 dup	26	1
27	072913.0027.raw	061113 TO-11A.MET	130983-64964	27	1
28	072913.0028.raw	061113 TO-11A.MET	130983-64965	28	1
29	072913.0029.raw	061113 TO-11A.MET	130983-64966	29	1
30	072913.0030.raw	061113 TO-11A.MET	130983-64967	30	1
31	072913.0031.raw	061113 TO-11A.MET	130947-64738	31	1
32	072913.0032.raw	061113 TO-11A.MET	130947-64739	32	1
33	072913.0033.raw	061113 TO-11A.MET	130947-64740	33	1
34	072913.0034.raw	061113 TO-11A.MET	ACN Blank	34	1
35	072913.0035.raw	061113 TO-11A.MET	CCV 2.5 ug/mL (PS011613-01)	35	1
36	072913.0036.raw	061113 TO-11A.MET	TO-11 Method Blank	36	1
37	072913.0037.raw	061113 TO-11A.MET	LCS Blank	37	1
38	072913.0038.raw	061113 TO-11A.MET	LCS 1.25ug/mL (PS011013-01)	38	1
39	072913.0039.raw	061113 TO-11A.MET	MS 130947-64741 1.25 ppm [(PS061113-01x2]	39	1
40	072913.0040.raw	061113 TO-11A.MET	MSD 130947-64741 1.25 ppm [(PS061113-01x2]	40	1
41	072913.0041.raw	061113 TO-11A.MET	130947-64741	41	1
42	072913.0042.raw	061113 TO-11A.MET	130947-64741 dup	42	1
43	072913.0043.raw	061113 TO-11A.MET	130978-64927	43	1
44	072913.0044.raw	061113 TO-11A.MET	130978-64928	44	1
45	072913.0045.raw	061113 TO-11A.MET	ACN Blank	45	1
46	072913.0046.raw	061113 TO-11A.MET	CCV 2.5 ug/mL (PS011613-01)	46	1
47	072913.0047.raw	061113 TO-11A.MET	130978-64929	47	1
48	072913.0048.raw	061113 TO-11A.MET	130978-64929 dup	48	1
49	072913.0049.raw	061113 TO-11A.MET	130978-64930	49	1
50	072913.0050.raw	061113 TO-11A.MET	ACN Blank	50	1
51	072913.0051.raw	061113 TO-11A.MET	CCV 2.5 ug/mL (PS011613-01)	51	1