

Client:	DEF Products, LLC
Contact	Joe Servin, General Manager
Address	422 East Barioni Blvd Imperial, CA 02251
Email	defproducts@gmail.com
Phone	760 355 7997

Analytic ID	E1902061-004
Batch Number	302272019
Train Number	GACX220496
Sample ID	DEF 32.7
Date Sampled	2/27/2019
Date Received	2/28/2019
Report Date	3/4/2019

Certificate of Analysis

Diesel Exhaust Fluid Analytical ISO-22241

Client ID: 32.7% DEF Batch# 302272019 Train# GACX220496

Test Parameter/Method	Units	Test Method (ISO) ¹	Acceptable Limit ²	Results	Chemist	Analysis Date	Pass/Fail
Urea Content	wt%	22241-2 Annex C	31.8-33.2	33.1	SPT	3/4/2019	Pass
Density @ 20degC	g/cm ³	3675	---	1.0930	CND	3/1/2019	---
Refractive Index @ 20degC	N _D ²⁰	22241-2 Annex C	1.3814-1.3843	1.3836	CND	3/1/2019	Pass
Alkalinity as NH ₃	%	22241-2 Annex D	<0.2	<0.01	CND	3/4/2019	Pass
Biuret	%	22241-2 Annex E	<0.3	0.11	CND	3/1/2019	Pass
Aldehyde	mg/kg	22241-2 Annex F	<5	<1.0	BDK	3/4/2019	Pass
Insolubles	mg/kg	22241-2 Annex G	<20	<2.0	BDK	3/4/2019	Pass
Phosphate	mg/kg	22241-2 Annex H	<0.5	<0.25	CND	3/4/2019	Pass
Calcium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	0.08	CLB	2/28/2019	Pass
Iron by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	CLB	2/28/2019	Pass
Copper by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.02	CLB	2/28/2019	Pass
Zinc by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.02	CLB	2/28/2019	Pass
Chromium by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.02	CLB	2/28/2019	Pass
Nickel by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.02	CLB	2/28/2019	Pass
Aluminum by ICP-OES	mg/kg	22241-2 Annex I	<0.5	0.06	CLB	2/28/2019	Pass
Magnesium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	CLB	2/28/2019	Pass
Sodium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	CLB	2/28/2019	Pass
Potassium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	0.08	CLB	2/28/2019	Pass
Identity by FTIR (attached)	Spectra	22241-2 Annex J	Match	Reference Match	CND	3/1/2019	Pass

Note 1: All ISO standards are up to date with the latest revisions.

Note 2: The acceptable values are based on the standard 32.5% unless otherwise stated, and are less than or equal to the values shown.

"The undersigned certifies that the value(s) reported have met the highest analytical quality control standards."



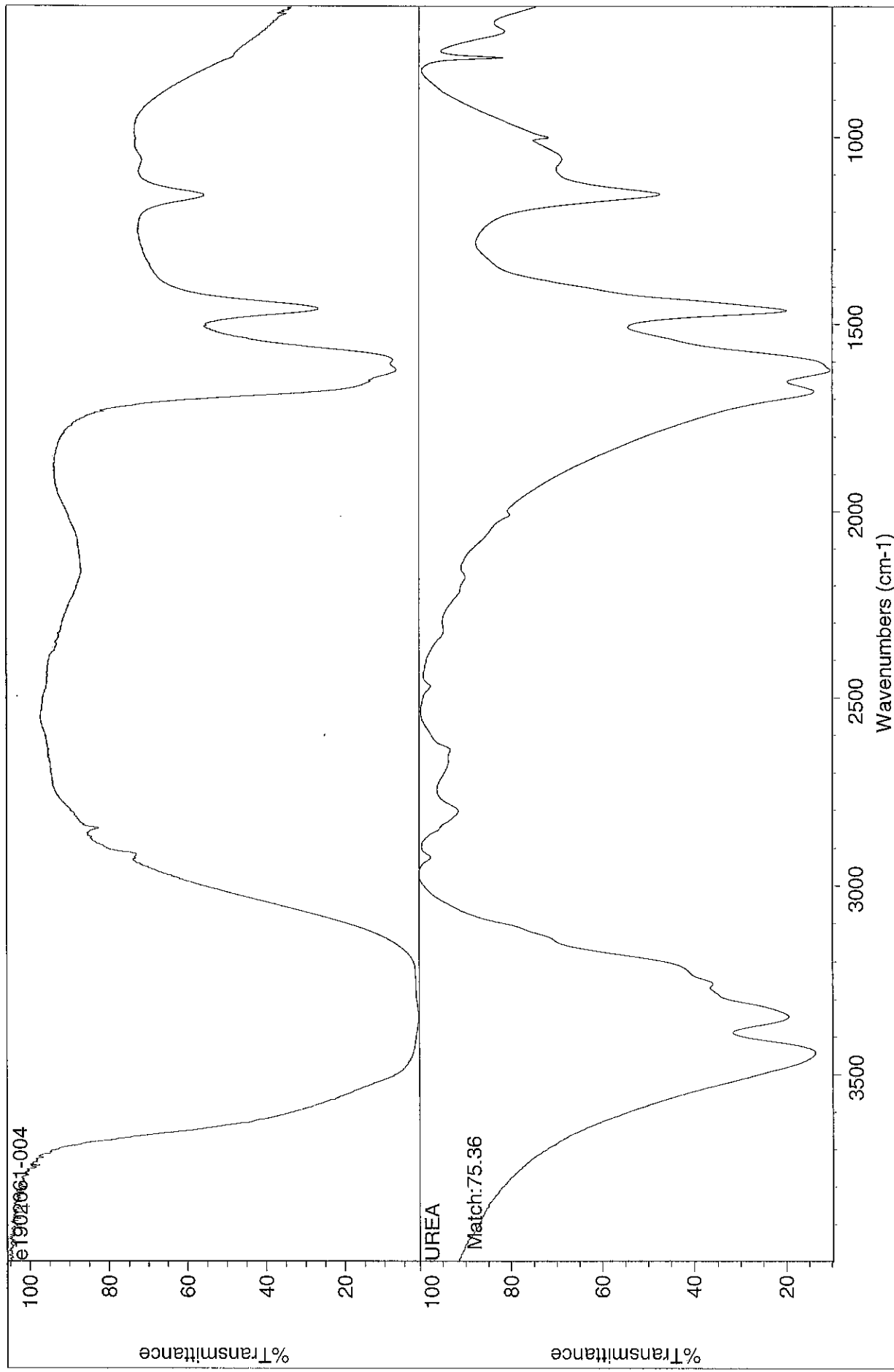
Certification Approval _____

Laboratory Director: Anthony J Scala

Enalytic DUNS Reg. Number: 02-636-0096

Date: 3/4/2019 _____

Search results for: e1902061-004
Date: Fri Mar 01 15:04:40 2019 (GMT-05:00)
Search algorithm: Search Expert
Regions searched: 2600.00-450.00



Chain of Custody Record

6034 Corporate Drive, East Syracuse, NY 13057
 Phone: 315.437.0255 Fax: 315.437.1209

Quote Number:



Client:		Project #/ Project Name		Quote Number:		Remarks	
DEF Products, LLC		ISO 22241 DEF Testing				Product Testing Certificate of Analysis	
Client Contact:		Location (City/State)					
Sharon Stegmuller		422 E. Barioni Blvd., Imperial CA					
Phone #		Lab Internal Use Only					
(760) 355-7997		E1902061					
Date		Time					
2/26/2019		N/A					
Sample ID		Matrix					
Batch # 302262019		Liquid					
Train # GACX220495		Comp					
PERCENT DEF 50.0%		Comp					
Batch # 302262019		Liquid					
Train # GACX220495		Comp					
PERCENT DEF 32.6%		Comp					
Batch # 302272019		Liquid					
Train # GACX220496		Comp					
PERCENT DEF 50.0%		Comp					
Batch # 302272019		Liquid					
Train # GACX220496		Comp					
PERCENT DEF 32.7%		Comp					
Parameter and Method		Sample bottle:		Type		Size	
1 Urea Content		Sample bottle:		HDPE		500 ml	
2 Refractive Index @ 20degC		Sample bottle:		None		None	
3 Density @ 20degC		Sample bottle:					
4 Alkalinity (as NH3)		Sample bottle:					
5 Biuret		Sample bottle:					
6 Aldehydes		Sample bottle:					
7 Insolubles		Sample bottle:					
8 Phosphate		Sample bottle:					
9 Total Metals: Al, Ca, Cr, Cu, Fe, K, Mg, Ni, Na, Zn.		Sample bottle:					
10 FTIR		Sample bottle:					
Number of Containers		1		2		1	
1		2		3		4	
2		3		4		5	
3		4		5		6	
4		5		6		7	
5		6		7		8	
6		7		8		9	
7		8		9		10	
8		9		10			
9		10					
10							
Sampled by (Print)		Company: DEF Products, LLC		Date		Time	
Relinquished by: (sign)		DEF Products, LLC		Date		Time	
Relinquished by: (sign)		DEF Products, LLC		Date		Time	
Relinquished by: (sign)		DEF Products, LLC		Date		Time	
Relinquished by: (sign)		DEF Products, LLC		Date		Time	
Name of Courier		FedEx First Overnight		Date		Time	
Received by: (sign)		DEF Products, LLC		Date		Time	
Received by: (sign)		DEF Products, LLC		Date		Time	
Received by: (sign)		DEF Products, LLC		Date		Time	
Rec'd for Lab by:		DEF Products, LLC		Date		Time	
C. Scala		DEF Products, LLC		Date		Time	
2/29/19		DEF Products, LLC		Date		Time	
11:19 am		DEF Products, LLC		Date		Time	
ON HOLD per client		DEF Products, LLC		Date		Time	

Client:	DEF Products, LLC
Contact	Joe Servin, General Manager
Address	422 East Barioni Blvd Imperial, CA 02251
Email	defproducts@gmail.com
Phone	760 355 7997

Enalytic ID	E1902061-002
Batch Number	302262019
Train Number	GACX220495
Sample ID	DEF 32.6
Date Sampled	2/26/2019
Date Received	2/28/2019
Report Date	3/4/2019

Certificate of Analysis

Diesel Exhaust Fluid Analytical ISO-22241

Client ID: 32.6% DEF Batch# 302262019 Train# GACX220495

Test Parameter/Method	Units	Test Method (ISO) ¹	Acceptable Limit ²	Results	Chemist	Analysis Date	Pass/Fail
Urea Content	wt%	22241-2 Annex C	31.8-33.2	33.1	SPT	3/4/2019	Pass
Density @ 20degC	g/cm ³	3675	---	1.0930	CND	3/1/2019	---
Refractive Index @ 20degC	N _D ²⁰	22241-2 Annex C	1.3814-1.3843	1.3836	CND	3/1/2019	Pass
Alkalinity as NH ₃	%	22241-2 Annex D	<0.2	<0.01	CND	3/4/2019	Pass
Biuret	%	22241-2 Annex E	<0.3	0.11	CND	3/1/2019	Pass
Aldehyde	mg/kg	22241-2 Annex F	<5	<1.0	BDK	3/4/2019	Pass
Insolubles	mg/kg	22241-2 Annex G	<20	<2.0	BDK	3/4/2019	Pass
Phosphate	mg/kg	22241-2 Annex H	<0.5	<0.25	CND	3/4/2019	Pass
Calcium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	0.07	CLB	2/28/2019	Pass
Iron by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	CLB	2/28/2019	Pass
Copper by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.02	CLB	2/28/2019	Pass
Zinc by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.02	CLB	2/28/2019	Pass
Chromium by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.02	CLB	2/28/2019	Pass
Nickel by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.02	CLB	2/28/2019	Pass
Aluminum by ICP-OES	mg/kg	22241-2 Annex I	<0.5	0.05	CLB	2/28/2019	Pass
Magnesium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	CLB	2/28/2019	Pass
Sodium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	0.12	CLB	2/28/2019	Pass
Potassium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	0.10	CLB	2/28/2019	Pass
Identity by FTIR (attached)	Spectra	22241-2 Annex J	Match	Reference Match	CND	3/1/2019	Pass

Note 1: All ISO standards are up to date with the latest revisions.

Note 2: The acceptable values are based on the standard 32.5% unless otherwise stated, and are less than or equal to the values shown.

"The undersigned certifies that the value(s) reported have met the highest analytical quality control standards."



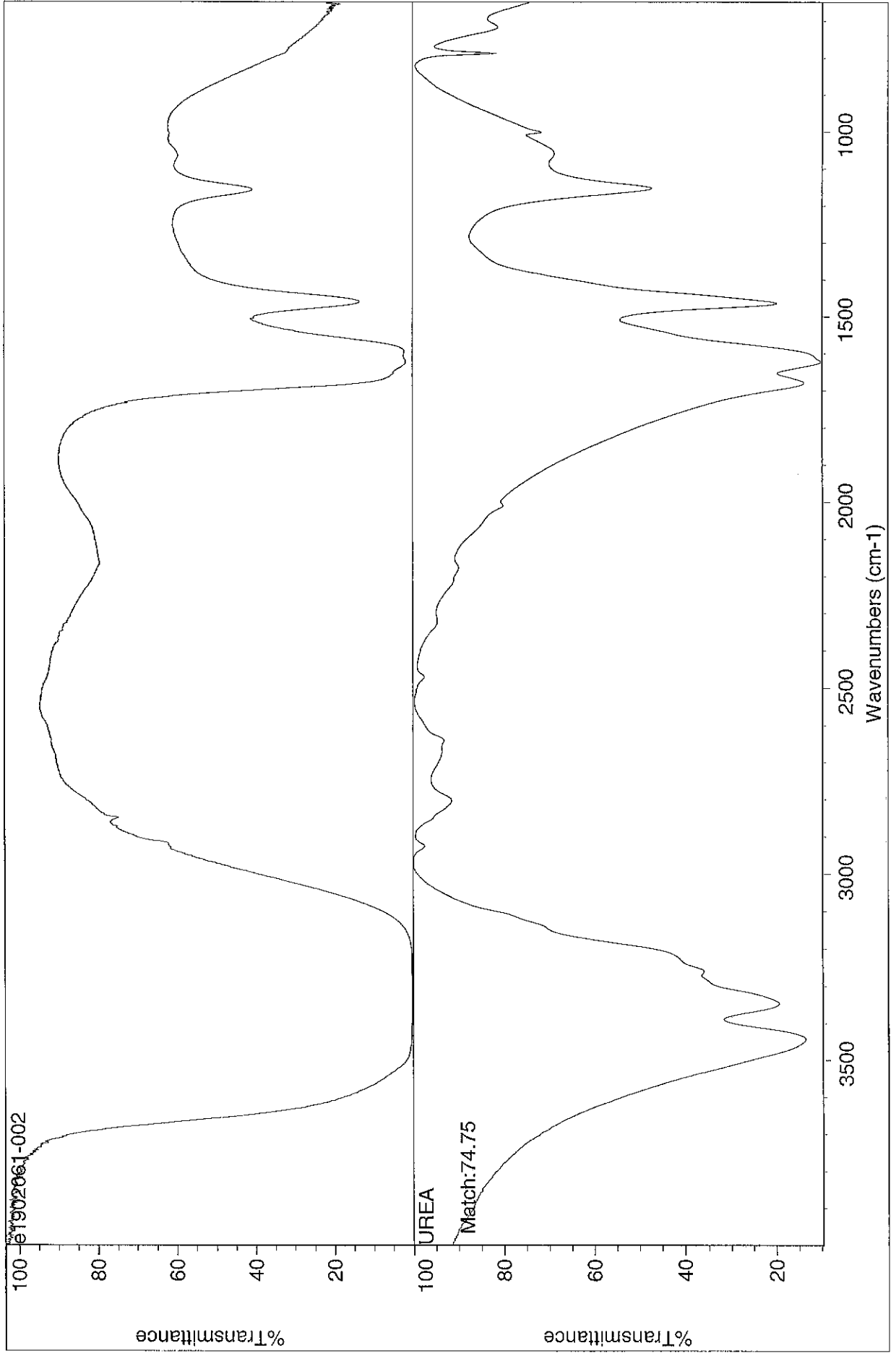
Certification Approval _____

Laboratory Director: Anthony J Scala

Enalytic DUNS Reg. Number: 02-636-0096

Date: 3/4/2019 _____

Search results for: e1902061-002
Date: Fri Mar 01 15:02:27 2019 (GMT-05:00)
Search algorithm: Search Expert
Regions searched: 2600.00-450.00



Chain of Custody Record



6034 Corporate Drive, East Syracuse, NY 13057
 Phone: 315.437.0255 Fax: 315.437.1209

Client:		Project #/Project Name		Quote Number:										Remarks	
DEF Products, LLC		ISO 22241 DEF Testing		1	2	3	4	5	6	7	8	9	10	Product Testing Certificate of Analysis	
Client Contact:		Phone #	Location (City/State)	Number of Containers											
Sharon Stegmuller		(760) 355-7997	422 E. Barioni Blvd., Imperial CA	1	X	X	X	X	X	X	X	X	X		
Batch # 302262019	Sample ID	Date	Time	Matrix	Grab or Comp	Lab Internal Use Only									
Train # GACX220495		2/26/2019	N/A	Liquid	Comp	E1902061									
PERCENT DEF 50.0%															
Batch # 302262019		2/26/2019	N/A	Liquid	Comp		2	X	X	X	X	X	X	X	
Train # GACX220495															
PERCENT DEF 32.6%															
Batch # 302272019		2/27/2019	N/A	Liquid	Comp		1								ON HOLD per client
Train # GACX220496															
PERCENT DEF 50.0%															
Batch # 302272019		2/27/2019	N/A	Liquid	Comp		2	X	X	X	X	X	X	X	
Train # GACX220496															
PERCENT DEF 32.7%															
Parameter and Method	Sample bottle:	Type	Size	Preservative	Sampled by (Print)										Name of Courier
1 Urea Content		HDPE	500 ml	None	Company: DEF Products, LLC										FedEx First Overnight
2 Refractive Index @ 20degC					Relinquished by: (sign)										Received by: (sign)
3 Density @ 20degC					DEF Products, LLC										Time
4 Alkalinity (as NH3)					Relinquished by: (sign)										Date
5 Biuret					DEF Products, LLC										Time
6 Aldehydes					Relinquished by: (sign)										Date
7 Insolubles					Relinquished by: (sign)										Time
8 Phosphate					Relinquished by: (sign)										Date
9 Total Metals: Al, Ca, Cr, Cu, Fe, K, Mg, Ni, Na, Zn.					Relinquished by: (sign)										Time
10 FTIR					Relinquished by: (sign)										Time

Rec'd for Lab by: *C. Scala*