

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

Enalytic ID	E2102013-001
Batch Number	302022021M
Train Number	TILX265187
Sample ID	DEF 32.4%
Date Sampled	2/2/2021
Date Received	2/8/2021
Report Date	2/10/2021

Certificate of Analysis

Diesel Exhaust Fluid Analytical ISO-22241

Client ID: 32.4% DEF Batch# 302022021M Train# TILX265187

Test Parameter/Method	Units	Test Method (ISO) ¹	Acceptable Limit ²	Results	Chemist	Analysis Date	Pass/Fail
Urea Content	wt%	22241-2 Annex C	31.8-33.4	32.8	SPT	2/10/2021	Pass
Refractive Index @ 20degC	N _D ²⁰	22241-2 Annex C	1.3814-1.3843	1.3834	AEC	2/8/2021	Pass
Alkalinity as NH ₃	%	22241-2 Annex D	<0.2	0.02	AEC	2/8/2021	Pass
Biuret	%	22241-2 Annex E	<0.3	0.10	AEC	2/9/2021	Pass
Aldehyde	mg/kg	22241-2 Annex F	<5.0	<1.0	AEC	2/9/2021	Pass
Insolubles	mg/kg	22241-2 Annex G	<20	<2.0	AEC	2/8/2021	Pass
Phosphate as P by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.25	PEN	2/10/2021	Pass
Calcium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	2/10/2021	Pass
Iron by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	2/10/2021	Pass
Copper by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.02	PEN	2/10/2021	Pass
Zinc by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.02	PEN	2/10/2021	Pass
Chromium by ICP-OES	mg/kg	22241-2 Annex I	<0.2	0.08	PEN	2/10/2021	Pass
Nickel by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.02	PEN	2/10/2021	Pass
Aluminum by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	2/10/2021	Pass
Magnesium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	2/10/2021	Pass
Sodium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	2/10/2021	Pass
Potassium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	2/10/2021	Pass

Miscellaneous Secondary Unregulated Quality Standards

Identify by FTIR (attached)	Spectra	22241-2 Annex J	Control Match	Match	SPT	2/9/2021	---
Density @ 20degC	g/cm ³	3675	Not Applicable	1.0918	AEC	2/8/2021	---

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

Date: 2/10/2021

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

Enalytic ID	E2102013-002
Batch Number	302032021M
Train Number	TILX265190
Sample ID	DEF 32.3%
Date Sampled	2/3/2021
Date Received	2/8/2021
Report Date	2/10/2021

Certificate of Analysis

Diesel Exhaust Fluid Analytical ISO-22241

Client ID: 32.3% DEF Batch# 302032021M Train# TILX265190

Test Parameter/Method	Units	Test Method (ISO) ¹	Acceptable Limit ²	Results	Chemist	Analysis Date	Pass/Fail
Urea Content	wt%	22241-2 Annex C	31.8-33.4	32.6	SPT	2/10/2021	Pass
Refractive Index @ 20degC	N _D ²⁰	22241-2 Annex C	1.3814-1.3843	1.3830	AEC	2/8/2021	Pass
Alkalinity as NH ₃	%	22241-2 Annex D	<0.2	0.03	AEC	2/8/2021	Pass
Biuret	%	22241-2 Annex E	<0.3	0.11	AEC	2/9/2021	Pass
Aldehyde	mg/kg	22241-2 Annex F	<5.0	<1.0	AEC	2/9/2021	Pass
Insolubles	mg/kg	22241-2 Annex G	<20	<2.0	AEC	2/8/2021	Pass
Phosphate as P by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.25	PEN	2/10/2021	Pass
Calcium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	0.07	PEN	2/10/2021	Pass
Iron by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	2/10/2021	Pass
Copper by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.02	PEN	2/10/2021	Pass
Zinc by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.02	PEN	2/10/2021	Pass
Chromium by ICP-OES	mg/kg	22241-2 Annex I	<0.2	0.08	PEN	2/10/2021	Pass
Nickel by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.02	PEN	2/10/2021	Pass
Aluminum by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	2/10/2021	Pass
Magnesium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	2/10/2021	Pass
Sodium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	2/10/2021	Pass
Potassium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	2/10/2021	Pass

Miscellaneous Secondary Unregulated Quality Standards

Identify by FTIR (attached)	Spectra	22241-2 Annex J	Control Match	Match	SPT	2/9/2021	---
Density @ 20degC	g/cm ³	3675	Not Applicable	1.0908	AEC	2/8/2021	---

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

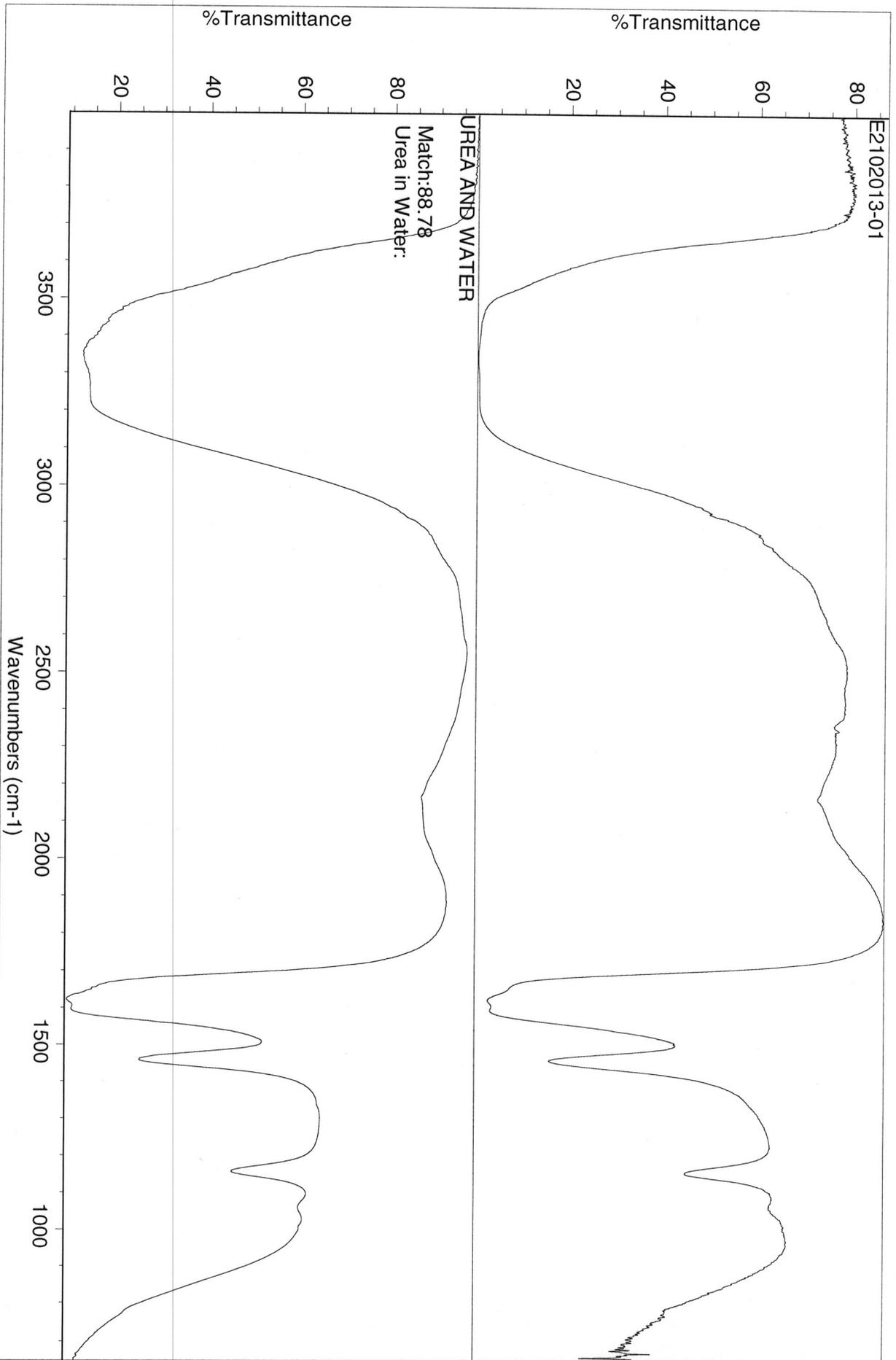
Note 2: The acceptable values are based on the standard 32.5% unless otherwise stated, and are less than or equal to the values shown.

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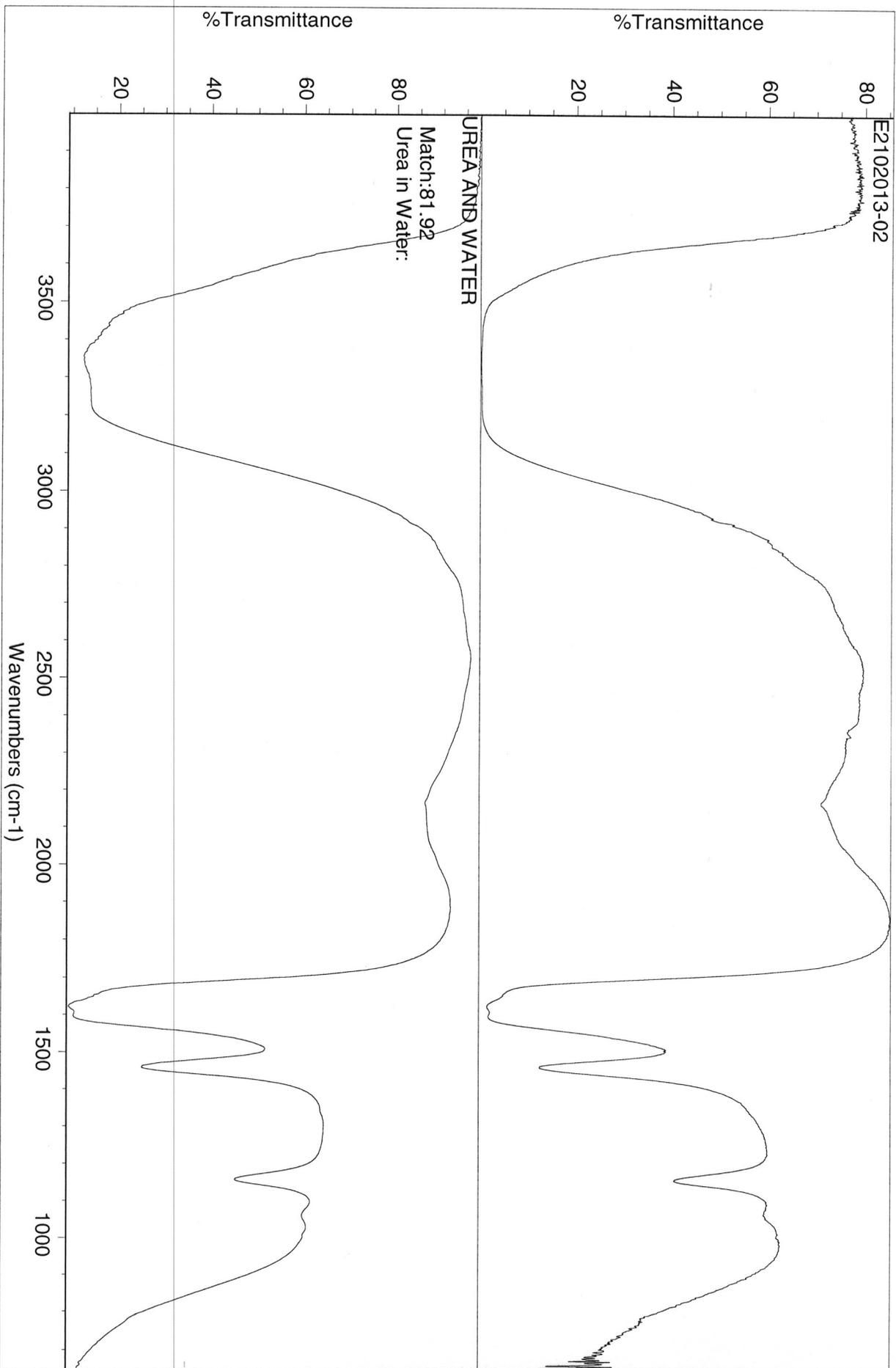
Certification Approval 
 Laboratory Director: Anthony J Scala

Date: 2/10/2021

Search results for: E2102013-01
Date: Tue Feb 09 08:52:29 2021 (GMT-05:00)
Search algorithm: Search Expert
Regions searched: 2600.00-450.00



Search results for: E2102013-02
Date: Tue Feb 09 08:54:26 2021 (GMT-05:00)
Search algorithm: Search Expert
Regions searched: 2600.00-450.00



analytic

Analytical Testing Laboratories

Chain of Custody Record

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

Quote Number:

Client: DEF Products, LLC		Project #/ Project Name ISO 22241 DEF Testing				Number of Containers	1	2	3	4	5	6	7	8	9	10	Remarks Product Testing Certificate of Analysis
Client Contact: Sharon Stegmuller		Location (City/State) 422 E. Barioni Blvd., Imperial CA															
Phone #																	
Sample ID	Date	Time	Matrix	Grab or Comp	Lab Internal Use Only												
Batch # 302022021M	2/2/2021	N/A	Liquid	Comp	E2102013 -001	2	x	x	x	x	x	x	x	x	x	x	
Train # TILX 265187																	
PERCENT DEF 32.4%																	
Batch # 302032021M	2/3/2021	NA	Liquid	Comp	-002	2	x	x	x	x	x	x	x	x	x	x	
Train # TILX 265190																	
PERCENT DEF 32.3%																	
Parameter and Method		Sample bottle:	Type	Size	Preservative	Sampled by (Print)			Name of Courier								
1	Urea Content		Plastic	500 mL	None	Company: DEF Products, LLC			FedEx Express								
2	Refractive Index @ 20degC					Relinquished by:(sign)		Date	Time	Received by: (sign)							
3	Density @ 20degC					DEF Products, LLC											
4	Alkalinity (as NH3)					Relinquished by:(sign)		Date	Time	Received by: (sign)							
5	Biuret																
6	Aldehydes					Relinquished by:(sign)		Date	Time	Received by: (sign)							
7	Insolubles																
8	Phosphate																
9	Total Metals: Al,Ca,Cr,Cu,Fe,K,Mg,Ni,Na,Zn.					Relinquished by:(sign)		Date	Time	Rec'd for Lab by:							
10	FTIR							2-8-2021	8:56 am								

Client:	DEF Products, LLC
Contact	Sharon Stegmuller
Address	422 East Barioni Blvd Imperial, CA 02251
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Phone	760 355 7997

Analytic ID	E2102013-001
Batch Number	302022021M
Train Number	TILX265187
Sample ID	DEF 32.4%
Date Sampled	2/2/2021
Date Received	2/8/2021
Report Date	2/10/2021

Certificate of Analysis

Diesel Exhaust Fluid Analytical ISO-22241

Client ID: 32.4% DEF Batch# 302022021M Train# TILX265187

Test Parameter/Method	Units	Test Method (ISO) ¹	Acceptable Limit ²	Results	Chemist	Analysis Date	Pass/Fail
Urea Content	wt%	22241-2 Annex C	31.8-33.4	32.8	SPT	2/10/2021	Pass
Refractive Index @ 20degC	N _D ²⁰	22241-2 Annex C	1.3814-1.3843	1.3834	AEC	2/8/2021	Pass
Alkalinity as NH ₃	%	22241-2 Annex D	<0.2	0.02	AEC	2/8/2021	Pass
Biuret	%	22241-2 Annex E	<0.3	0.10	AEC	2/9/2021	Pass
Aldehyde	mg/kg	22241-2 Annex F	<5.0	<1.0	AEC	2/9/2021	Pass
Insolubles	mg/kg	22241-2 Annex G	<20	<2.0	AEC	2/8/2021	Pass
Phosphate as P by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.25	PEN	2/10/2021	Pass
Calcium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	2/10/2021	Pass
Iron by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	2/10/2021	Pass
Copper by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.02	PEN	2/10/2021	Pass
Zinc by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.02	PEN	2/10/2021	Pass
Chromium by ICP-OES	mg/kg	22241-2 Annex I	<0.2	0.08	PEN	2/10/2021	Pass
Nickel by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.02	PEN	2/10/2021	Pass
Aluminum by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	2/10/2021	Pass
Magnesium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	2/10/2021	Pass
Sodium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	2/10/2021	Pass
Potassium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	2/10/2021	Pass
Miscellaneous Secondary Unregulated Quality Standards							
Identify by FTIR (attached)	Spectra	22241-2 Annex J	Control Match	Match	SPT	2/9/2021	---
Density @ 20degC	g/cm ³	3675	Not Applicable	1.0918	AEC	2/8/2021	---

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Certification Approval 
Laboratory Director: Anthony J Scala

Date: 2/10/2021

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

Enalytic ID	E2102013-002
Batch Number	302032021M
Train Number	TILX265190
Sample ID	DEF 32.3%
Date Sampled	2/3/2021
Date Received	2/8/2021
Report Date	2/10/2021

Certificate of Analysis

Diesel Exhaust Fluid Analytical ISO-22241

Client ID: 32.3% DEF Batch# 302032021M Train# TILX265190

Test Parameter/Method	Units	Test Method (ISO) ¹	Acceptable Limit ²	Results	Chemist	Analysis Date	Pass/Fail
Urea Content	wt%	22241-2 Annex C	31.8-33.4	32.6	SPT	2/10/2021	Pass
Refractive Index @ 20degC	N _D ²⁰	22241-2 Annex C	1.3814-1.3843	1.3830	AEC	2/8/2021	Pass
Alkalinity as NH ₃	%	22241-2 Annex D	<0.2	0.03	AEC	2/8/2021	Pass
Biuret	%	22241-2 Annex E	<0.3	0.11	AEC	2/9/2021	Pass
Aldehyde	mg/kg	22241-2 Annex F	<5.0	<1.0	AEC	2/9/2021	Pass
Insolubles	mg/kg	22241-2 Annex G	<20	<2.0	AEC	2/8/2021	Pass
Phosphate as P by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.25	PEN	2/10/2021	Pass
Calcium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	0.07	PEN	2/10/2021	Pass
Iron by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	2/10/2021	Pass
Copper by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.02	PEN	2/10/2021	Pass
Zinc by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.02	PEN	2/10/2021	Pass
Chromium by ICP-OES	mg/kg	22241-2 Annex I	<0.2	0.08	PEN	2/10/2021	Pass
Nickel by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.02	PEN	2/10/2021	Pass
Aluminum by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	2/10/2021	Pass
Magnesium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	2/10/2021	Pass
Sodium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	2/10/2021	Pass
Potassium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	2/10/2021	Pass
Miscellaneous Secondary Unregulated Quality Standards							
Identify by FTIR (attached)	Spectra	22241-2 Annex J	Control Match	Match	SPT	2/9/2021	---
Density @ 20degC	g/cm ³	3675	Not Applicable	1.0908	AEC	2/8/2021	---

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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.

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Laboratory Director: Anthony J Scala

Date: 2/10/2021

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

Enalytic ID	E2102024-001
Batch Number	302052021M
Train Number	TILX264956
Sample ID	DEF 32.5%
Date Sampled	2/5/2021
Date Received	2/12/2021
Report Date	2/17/2021

Certificate of Analysis

Diesel Exhaust Fluid Analytical ISO-22241

Client ID: 32.5% DEF Batch# 302052021M Train# TILX264956

Test Parameter/Method	Units	Test Method (ISO) ¹	Acceptable Limit ²	Results	Chemist	Analysis Date	Pass/Fail
Urea Content	wt%	22241-2 Annex C	31.8-33.4	32.4	SPT	2/16/2021	Pass
Refractive Index @ 20degC	N _D ²⁰	22241-2 Annex C	1.3814-1.3843	1.3828	AEC	2/15/2021	Pass
Alkalinity as NH ₃	%	22241-2 Annex D	<0.2	0.03	AEC	2/15/2021	Pass
Biuret	%	22241-2 Annex E	<0.3	0.15	AEC	2/15/2021	Pass
Aldehyde	mg/kg	22241-2 Annex F	<5.0	<1.0	AEC	2/12/2021	Pass
Insolubles	mg/kg	22241-2 Annex G	<20	<2.0	AEC	2/15/2021	Pass
Phosphate as P by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.25	PEN	2/16/2021	Pass
Calcium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	2/16/2021	Pass
Iron by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	2/16/2021	Pass
Copper by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.02	PEN	2/16/2021	Pass
Zinc by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.02	PEN	2/16/2021	Pass
Chromium by ICP-OES	mg/kg	22241-2 Annex I	<0.2	0.06	PEN	2/16/2021	Pass
Nickel by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.02	PEN	2/16/2021	Pass
Aluminum by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	2/16/2021	Pass
Magnesium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	2/16/2021	Pass
Sodium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	2/16/2021	Pass
Potassium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	2/16/2021	Pass

Miscellaneous Secondary Unregulated Quality Standards

Identify by FTIR (attached)	Spectra	22241-2 Annex J	Control Match	Match	AEC	2/15/2021	---
Density @ 20degC	g/cm ³	3675	Not Applicable	1.0903	AEC	2/15/2021	---

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Certification Approval _____

Laboratory Director: Anthony J Scala

Date: 2/17/2021

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

Enalytic ID	E2102024-002
Batch Number	302102021M
Train Number	TILX264946
Sample ID	DEF 32.5%
Date Sampled	2/10/2021
Date Received	2/12/2021
Report Date	2/17/2021

Certificate of Analysis

Diesel Exhaust Fluid Analytical ISO-22241

Client ID: 32.5% DEF Batch# 302102021M Train# TILX264946

Test Parameter/Method	Units	Test Method (ISO) ¹	Acceptable Limit ²	Results	Chemist	Analysis Date	Pass/Fail
Urea Content	wt%	22241-2 Annex C	31.8-33.4	32.3	SPT	2/16/2021	Pass
Refractive Index @ 20degC	N _D ²⁰	22241-2 Annex C	1.3814-1.3843	1.3826	AEC	2/15/2021	Pass
Alkalinity as NH ₃	%	22241-2 Annex D	<0.2	0.03	AEC	2/15/2021	Pass
Biuret	%	22241-2 Annex E	<0.3	0.16	AEC	2/15/2021	Pass
Aldehyde	mg/kg	22241-2 Annex F	<5.0	<1.0	AEC	2/12/2021	Pass
Insolubles	mg/kg	22241-2 Annex G	<20	<2.0	AEC	2/15/2021	Pass
Phosphate as P by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.25	PEN	2/16/2021	Pass
Calcium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	2/16/2021	Pass
Iron by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	2/16/2021	Pass
Copper by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.02	PEN	2/16/2021	Pass
Zinc by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.02	PEN	2/16/2021	Pass
Chromium by ICP-OES	mg/kg	22241-2 Annex I	<0.2	0.06	PEN	2/16/2021	Pass
Nickel by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.02	PEN	2/16/2021	Pass
Aluminum by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	2/16/2021	Pass
Magnesium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	2/16/2021	Pass
Sodium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	2/16/2021	Pass
Potassium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	0.10	PEN	2/16/2021	Pass

Miscellaneous Secondary Unregulated Quality Standards

Identify by FTIR (attached)	Spectra	22241-2 Annex J	Control Match	Match	AEC	2/15/2021	---
Density @ 20degC	g/cm ³	3675	Not Applicable	1.0898	AEC	2/15/2021	---

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Certification Approval 
 Laboratory Director: Anthony J Scala

Date: 2/17/2021

Client:	DEF Products, LLC
Contact	Sharon Stegmuller
Address	422 East Barioni Blvd Imperial, CA 02251
Email	defproducts@gmail.com
Phone	760 355 7997
Report Date	3/1/2021

Enalytic ID	E2102044-001
Batch Number	302122021L
Train Number	TILX265570
Sample ID	DEF 32.3%
Date Sampled	2/12/2021
Date Received	2/25/2021
ISO 17025	Certificate Number: AT-2956

Certificate of Analysis

Diesel Exhaust Fluid Analytical ISO-22241

Client ID: **32.3% DEF** Batch# **302122021L** Train# **TILX265570**

Test Parameter/Method	Units	Test Method (ISO) ¹	Acceptable Limit ²	Results	Chemist	Analysis Date	Pass/Fail
Urea Content ³	wt%	22241-2 Annex C	31.8-33.4	32.5	ALB	3/1/2021	Pass
Refractive Index @ 20degC	N _D ²⁰	22241-2 Annex C	1.3814-1.3843	1.3828	ALB	3/1/2021	Pass
Alkalinity as NH ₃	%	22241-2 Annex D	<0.2	0.03	ALB	3/1/2021	Pass
Biuret	%	22241-2 Annex E	<0.3	0.11	ALB	3/1/2021	Pass
Aldehyde	mg/kg	22241-2 Annex F	<5.0	<1.0	ALB	3/1/2021	Pass
Insolubles	mg/kg	22241-2 Annex G	<20	<2.0	SPT	2/26/2021	Pass
Phosphate as P by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	2/26/2021	Pass
Calcium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	2/26/2021	Pass
Iron by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	2/26/2021	Pass
Copper by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.02	PEN	2/26/2021	Pass
Zinc by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.02	PEN	2/26/2021	Pass
Chromium by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.02	PEN	2/26/2021	Pass
Nickel by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.02	PEN	2/26/2021	Pass
Aluminum by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	2/26/2021	Pass
Magnesium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	2/26/2021	Pass
Sodium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	2/26/2021	Pass
Potassium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	2/26/2021	Pass

Miscellaneous Secondary Unregulated Quality Standards

Identify by FTIR (attached) ³	Spectra	22241-2 Annex J	Control Match	Match	ALB	3/1/2021	---
Density @ 20degC	g/cm ³	3675	Not Applicable	1.0898	ALB	3/1/2021	---

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.

Note 3: ISO 17025 accreditation not applied for.

All procedures were conducted in accordance with Enalytic's Quality Control manual in its most current form and/or related procedures. The information contained in the analytical report represents only the materials tested and may not be reproduced except in full and without the written approval of the Technical Director of Enalytic Labs. Enalytic maintains a quality system in compliance with ISO17025:2017 with accreditations through ANAB certificate #AT-2956. All testing will be conducted in good faith by trained personnel equipped with the proper equipment and methodologies. Our liability will be limited to the cost of the services, including third-party charges. All test samples will be retained for a minimum of 3 months and/or extension by request.

Certification Approval 
Laboratory Director: Anthony J Scala

Date: 3/1/2021

Client:	DEF Products, LLC
Contact	Sharon Stegmuller
Address	422 East Barioni Blvd Imperial, CA 02251
Email	defproducts@gmail.com
Phone	760 355 7997
Report Date	3/4/2021

Enalytic ID	E2103008-001
Batch Number	302262021M
Train Number	TILX23252
Sample ID	DEF 32.6%
Date Sampled	2/26/2021
Date Received	3/2/2021
ISO 17025	Certificate Number: AT-2956

Certificate of Analysis

Diesel Exhaust Fluid Analytical ISO-22241

Client ID: **32.6% DEF** Batch# **302262021M** Train# **TILX23252**

Test Parameter/Method	Units	Test Method (ISO) ¹	Acceptable Limit ²	Results	Chemist	Analysis Date	Pass/Fail
Urea Content ³	wt%	22241-2 Annex C	31.8-33.4	32.5	SPT	3/3/2021	Pass
Refractive Index @ 20degC	N _D ²⁰	22241-2 Annex C	1.3814-1.3843	1.3830	ALB	3/2/2021	Pass
Alkalinity as NH ₃	%	22241-2 Annex D	<0.2	0.07	ALB	3/3/2021	Pass
Biuret	%	22241-2 Annex E	<0.3	0.18	ALB	3/2/2021	Pass
Aldehyde	mg/kg	22241-2 Annex F	<5.0	<1.0	ALB	3/3/2021	Pass
Insolubles	mg/kg	22241-2 Annex G	<20	<2.0	ALB	3/2/2021	Pass
Phosphate as P by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	3/3/2021	Pass
Calcium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	3/3/2021	Pass
Iron by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	3/3/2021	Pass
Copper by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.02	PEN	3/3/2021	Pass
Zinc by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.02	PEN	3/3/2021	Pass
Chromium by ICP-OES	mg/kg	22241-2 Annex I	<0.2	0.05	PEN	3/3/2021	Pass
Nickel by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.02	PEN	3/3/2021	Pass
Aluminum by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	3/3/2021	Pass
Magnesium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	3/3/2021	Pass
Sodium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	3/3/2021	Pass
Potassium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.05	PEN	3/3/2021	Pass
Miscellaneous Secondary Unregulated Quality Standards							
Identify by FTIR (attached) ³	Spectra	22241-2 Annex J	Control Match	Match	ALB	3/2/2021	---
Density @ 20degC	g/cm ³	3675	Not Applicable	1.0898	ALB	3/2/2021	---

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Certification Approval _____

Laboratory Director: Anthony J Scala



Date: 3/4/2021