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ISO/IEC 17025:2017

Client: DEF Products, LLC Contact Sharon Stegmuller Address 422 East Barioni Blvd Imperial, CA 02251 defproducts@gmail.com Email Phone 760 355 7997 Report Date 9/11/2025

Enalytic ID	E2509010-001
TRAIN#	TILX265518
TRC#	309042025P
T#	13/14
Sample ID	DEF 32.0%
Date Sampled	9/4/2025
Date Received	9/8/2025
ISO 17025	Certificate Number: L24-103

Certificate of Analysis

Diesel Exhaust Fluid Analytical ISO-22241

Client ID: 32.0% DEF TRAIN # TILX265518 T # 13/14 TRC # 309042025P

Test Parameter/Method	Units	Test	Acceptable	Results	Chemist	Analysis	Pass/	
		Method (ISO) ¹	Limit ²			Date	Fail	
Urea Content	wt%	22241-2 Annex C	31.8-33.2	31.9	SPT	9/11/2025	Pass	
Refractive Index @ 20degC	N_D^{20}	22241-2 Annex C	1.3814-1.3843	1.3820	CTM	9/10/2025	Pass	
Alkalinity as NH ₃	%	22241-2 Annex D	<0.2	0.03	СТМ	9/8/2025	Pass	
Biuret	%	22241-2 Annex E	<0.3	0.16	СТМ	9/9/2025	Pass	
Aldehyde	mg/kg	22241-2 Annex F	<5.0	<1.0	MFB	9/8/2025	Pass	
Insolubles	mg/kg	22241-2 Annex G	<20	<2.5	MFB	9/9/2025	Pass	
Aluminum by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	9/10/2025	Pass	
Calcium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	9/10/2025	Pass	
Chromium by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.06	BDK	9/10/2025	Pass	
Copper by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.06	BDK	9/10/2025	Pass	
Iron by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	9/10/2025	Pass	
Magnesium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	9/10/2025	Pass	
Nickel by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.06	BDK	9/10/2025	Pass	
Phosphate by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.46	BDK	9/10/2025	Pass	
Potassium by ICP-0ES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	9/10/2025	Pass	
Sodium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	9/10/2025	Pass	
Zinc by ICP-0ES	mg/kg	22241-2 Annex I	<0.2	<0.06	BDK	9/10/2025	Pass	
	Miscellaneous Secondary Unregulated Quality Standards							
Identify by FTIR (attached) ³	Spectra	22241-2 Annex J	Control Match					
Density @ 20degC	g/cm ³	3675	Not Applicable	1.0883	СТМ	9/9/2025		

Miscellaneous Secondary Unregulated Quality Standards							
Identify by FTIR (attached) ³	Spectra	22241-2 Annex J	Control Match				-
Density @ 20degC	g/cm ³	3675	Not Applicable	1.0883	CTM	9/9/2025	

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.

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Certification Approval

Laboratory Director: Anthony J Scala

Enalytic DUNS Reg. Number: 02-636-0096

Page 1 of 1

9/11/2025

Date:



PJIA
Testing
ISO/IEC 17025:2017

309052025P

T# 7/12

TRC#

Sample ID DEF 32.1%
Date Sampled 9/5/2025
Date Received 9/8/2025

ISO 17025 Certificate Number: L24-103

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 9/11/2025

Certificate of Analysis

Diesel Exhaust Fluid Analytical ISO-22241

Client ID: 32.1% DEF TRAIN # GATX235276 T # 7/12 TRC # 309052025P

Test Parameter/Method	Units	Test	Acceptable	Results	Chemist	Analysis	Pass/	
		Method (ISO) ¹	Limit ²			Date	Fail	
Urea Content	wt%	22241-2 Annex C	31.8-33.2	32.0	SPT	9/11/2025	Pass	
Refractive Index @ 20degC	N_D^{20}	22241-2 Annex C	1.3814-1.3843	1.3822	СТМ	9/10/2025	Pass	
Alkalinity as NH ₃	%	22241-2 Annex D	<0.2	0.03	СТМ	9/8/2025	Pass	
Biuret	%	22241-2 Annex E	<0.3	0.16	СТМ	9/9/2025	Pass	
Aldehyde	mg/kg	22241-2 Annex F	<5.0	<1.0	MFB	9/8/2025	Pass	
Insolubles	mg/kg	22241-2 Annex G	<20	<2.5	MFB	9/9/2025	Pass	
Aluminum by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	9/10/2025	Pass	
Calcium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	0.15	BDK	9/10/2025	Pass	
Chromium by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.06	BDK	9/10/2025	Pass	
Copper by ICP-OES	mg/kg	22241-2 Annex I	<0.2	0.060	BDK	9/10/2025	Pass	
Iron by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	9/10/2025	Pass	
Magnesium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	9/10/2025	Pass	
Nickel by ICP-0ES	mg/kg	22241-2 Annex I	<0.2	<0.06	BDK	9/10/2025	Pass	
Phosphate by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.46	BDK	9/10/2025	Pass	
Potassium by ICP-0ES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	9/10/2025	Pass	
Sodium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	9/10/2025	Pass	
Zinc by ICP-0ES	mg/kg	22241-2 Annex I	<0.2	<0.06	BDK	9/10/2025	Pass	
	Miscellaneous Secondary Unregulated Quality Standards							
Identify by FTIR (attached) ³	Spectra	22241-2 Annex J	Control Match					
Density @ 20degC	g/cm ³	3675	Not Applicable	1.0883	СТМ	9/9/2025		

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.

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Certification Approval

Laboratory Director: Anthony J Scala

Enalytic DUNS Reg. Number: 02-636-0096

Date: 9/11/2025

Page 1 of 1



PJIA Testing ISO/IEC 17025:2017

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 9/17/2025

Enalytic ID	E2509025-001
	FURX153045
TRC#	309112025T
T#	7/8
Sample ID	DEF 32.4%
Date Sampled	9/11/2025
Date Received	9/15/2025
ISO 17025	Certificate Number: L24-103

Certificate of Analysis

Diesel Exhaust Fluid Analytical ISO-22241

Client ID: 32.4% DEF FURX153045 T # 7/8 TRC # 309112025T

Test Parameter/Method	Units	Test	Acceptable	Results	Chemist	Analysis	Pass/	
		Method (ISO) ¹	Limit ^{2,4}			Date	Fail	
Urea Content	wt%	22241-2 Annex C	31.8-33.2	32.3	SPT	9/17/2025	Pass	
Refractive Index @ 20degC	N_D^{20}	22241-2 Annex C	1.3814-1.3843	1.3826	CTM	9/17/2025	Pass	
Alkalinity as NH ₃	%	22241-2 Annex D	<0.2	0.02	СТМ	9/17/2025	Pass	
Biuret	%	22241-2 Annex E	<0.3	0.16	СТМ	9/16/2025	Pass	
Aldehyde	mg/kg	22241-2 Annex F	<5.0	<1.0	MFB	9/16/2025	Pass	
Insolubles	mg/kg	22241-2 Annex G	<20	<2.5	CTM	9/16/2025	Pass	
Aluminum by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	9/17/2025	Pass	
Calcium by ICP-OES	mg/kg	22241-2 Annex I	(<0.54)	0.54	BDK	9/17/2025	Pass	
Chromium by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.06	BDK	9/17/2025	Pass	
Copper by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.06	BDK	9/17/2025	Pass	
Iron by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	9/17/2025	Pass	
Magnesium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	9/17/2025	Pass	
Nickel by ICP-0ES	mg/kg	22241-2 Annex I	<0.2	<0.06	BDK	9/17/2025	Pass	
Phosphate by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.46	BDK	9/17/2025	Pass	
Potassium by ICP-0ES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	9/17/2025	Pass	
Sodium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	9/17/2025	Pass	
Zinc by ICP-0ES	mg/kg	22241-2 Annex I	<0.2	<0.06	BDK	9/17/2025	Pass	
	Miscellaneous Secondary Unregulated Quality Standards							
Identify by FTIR (attached) ³	Spectra	22241-2 Annex J	Control Match					
Density @ 20degC	g/cm ³	3675	Not Applicable	1.0894	MFB	9/17/2025		

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.

Note 4: The ISO 22241-2 acceptable limit plus reproducibility for Calcium is shown in parentheses and is less than or equal to the value shown.

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Certification Approval

Laboratory Director: Anthony J Scala

Enalytic DUNS Reg. Number: 02-636-0096

Date: 9/17/2025



PJLA Testing

ISO/IEC 17025:2017

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	9/23/2025

Enalytic ID	E2509028-001
	GATX236638
TRC#	309162025L
T#	2/4
Sample ID	DEF 32.1%
Date Sampled	9/16/2025
Date Received	9/19/2025
ISO 17025	Certificate Number: L24-103

Certificate of Analysis

Diesel Exhaust Fluid Analytical ISO-22241

Client ID: 32.1% DEF GATX236638 T # 2/4 TRC # 309162025L

Test Parameter/Method	Units	Test	Acceptable	Results	Chemist	Analysis	Pass/
		Method (ISO) ¹	Limit ²			Date	Fail
Urea Content	wt%	22241-2 Annex C	31.8-33.2	32.0	SPT	9/23/2025	Pass
Refractive Index @ 20degC	N_D^{20}	22241-2 Annex C	1.3814-1.3843	1.3822	CTM	9/23/2025	Pass
Alkalinity as NH ₃	%	22241-2 Annex D	<0.2	0.02	MFB	9/19/2025	Pass
Biuret	%	22241-2 Annex E	<0.3	0.16	CTM	9/22/2025	Pass
Aldehyde	mg/kg	22241-2 Annex F	<5.0	<1.0	MFB	9/22/2025	Pass
Insolubles	mg/kg	22241-2 Annex G	<20	<2.5	CTM	9/22/2025	Pass
Aluminum by ICP-0ES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	9/22/2025	Pass
Calcium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	9/22/2025	Pass
Chromium by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.06	BDK	9/22/2025	Pass
Copper by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.06	BDK	9/22/2025	Pass
Iron by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	9/22/2025	Pass
Magnesium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	9/22/2025	Pass
Nickel by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.06	BDK	9/22/2025	Pass
Phosphate by ICP-0ES	mg/kg	22241-2 Annex I	<0.5	< 0.46	BDK	9/22/2025	Pass
Potassium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	9/22/2025	Pass
Sodium by ICP-0ES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	9/22/2025	Pass
Zinc by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.06	BDK	9/22/2025	Pass
Miscellaneous Secondary Unregulated Quality Standards							
Identify by FTIR (attached) ³	Spectra	22241-2 Annex J	Control Match				
Density @ 20degC	g/cm ³	3675	Not Applicable	1.0889	MFB	9/22/2025	

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Certification Approval _____

Laboratory Director: Anthony J Scala

Enalytic DUNS Reg. Number: 02-636-0096

Page 1 of 1

9/23/2025

Date:



PJIA
Testing
ISO/IEC 17025:2017

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 9/30/2025

Enalytic ID E2509041-001 TRAIN# FURX153049 TRC# 309232025T T# 11/17 Sample ID DEF 32.1% Date Sampled 9/23/2025 Date Received 9/25/2025 ISO 17025 Certificate Number: L24-103

Certificate of Analysis

Diesel Exhaust Fluid Analytical ISO-22241

Client ID: 32.1% DEF TRAIN # FURX153049 T # 11/17 TRC # 309232025T

Test Parameter/Method	Units	Test	Acceptable	Results	Chemist	Analysis	Pass/
		Method (ISO) ¹	Limit ²			Date	Fail
Urea Content	wt%	22241-2 Annex C	31.8-33.2	32.1	SPT	9/29/2025	Pass
Refractive Index @ 20degC	N_D^{20}	22241-2 Annex C	1.3814-1.3843	1.3824	CTM	9/26/2025	Pass
Alkalinity as NH ₃	%	22241-2 Annex D	<0.2	0.02	СТМ	9/29/2025	Pass
Biuret	%	22241-2 Annex E	<0.3	0.15	СТМ	9/26/2025	Pass
Aldehyde	mg/kg	22241-2 Annex F	<5.0	<1.0	MFB	9/26/2025	Pass
Insolubles	mg/kg	22241-2 Annex G	<20	<2.5	CTM	9/25/2025	Pass
Aluminum by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	9/26/2025	Pass
Calcium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	9/26/2025	Pass
Chromium by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.06	BDK	9/26/2025	Pass
Copper by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.06	BDK	9/26/2025	Pass
Iron by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	9/26/2025	Pass
Magnesium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	9/26/2025	Pass
Nickel by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.06	BDK	9/26/2025	Pass
Phosphate by ICP-0ES	mg/kg	22241-2 Annex I	<0.5	<0.46	BDK	9/26/2025	Pass
Potassium by ICP-0ES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	9/26/2025	Pass
Sodium by ICP-0ES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	9/26/2025	Pass
Zinc by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.06	BDK	9/26/2025	Pass
Miscellaneous Secondary Unregulated Quality Standards							
Identify by FTIR (attached)3	Spectra	22241-2 Annex J	Control Match				
Density @ 20degC	g/cm ³	3675	Not Applicable	1.0889	MFB	9/26/2025	

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Certification Approval ___

Laboratory Director: Anthony J Scala

Enalytic DUNS Reg. Number: 02-636-0096

Date: 9/30/2025

Page 1 of 1