

3/14/2025

Report Date

6034 Corporate Dr. East Syracuse NY 13057 Web Site: Enalytic.com Ph:315-437-0255

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

Enalytic ID	E2503019-001
TRAIN#	GBRX711556
TRC#	303082025T
T #	1&14
Sample ID	DEF 32.6%
Date Sampled	3/8/2025
Date Received	3/12/2025
ISO 17025	Certificate Number: L24-103

Certificate of Analysis

Diesel Exhaust Fluid Analytical ISO-22241

Client ID: 32.6% DEF TRAIN # GBRX711556 T # 1&14 TRC # 303082025T

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	32.3	SPT	3/14/2025	Pass	
Refractive Index @ 20degC	N_D^{20}	22241-2 Annex C	1.3814-1.3843	1.3826	NAC	3/13/2025	Pass	
Alkalinity as NH ₃	%	22241-2 Annex D	<0.2	0.03	MDC	3/12/2025	Pass	
Biuret	%	22241-2 Annex E	<0.3	0.17	NAC	3/13/2025	Pass	
Aldehyde	mg/kg	22241-2 Annex F	<5.0	<1.0	MFB	3/14/2025	Pass	
Insolubles	mg/kg	22241-2 Annex G	<20	4.5	MFB	3/13/2025	Pass	
Aluminum by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	3/12/2025	Pass	
Calcium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	3/12/2025	Pass	
Chromium by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.06	BDK	3/12/2025	Pass	
Copper by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.06	BDK	3/12/2025	Pass	
Iron by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	3/12/2025	Pass	
Magnesium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	3/12/2025	Pass	
Nickel by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.06	BDK	3/12/2025	Pass	
Phosphate by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.46	BDK	3/12/2025	Pass	
Potassium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	3/12/2025	Pass	
Sodium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	3/12/2025	Pass	
Zinc by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.06	BDK	3/12/2025	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	3/13/2025		

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.

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 Perry Johnson certificate #L24-103. 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. Fraudulent, false or statements of fiction are punishable by Federal Law. All samples received and reported above have been received in proper condition or as noted on the report.

Certification Approval

Laboratory Director: Anthony J Scala

Enalytic DUNS Reg. Number: 02-636-0096

Date: 3/14/2025

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3/19/2025

Report Date

6034 Corporate Dr. East Syracuse NY 13057 Web Site: Enalytic.com Ph:315-437-0255

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

Enalytic ID	E2503029-001
TRAIN #	GBRX711580
TRC#	303132025L
T #	2&4
Sample ID	DEF 32.5%
Date Sampled	3/13/2025
Date Received	3/17/2025
ISO 17025	Certificate Number: L24-103

Certificate of Analysis

Diesel Exhaust Fluid Analytical ISO-22241

Client ID: 32.5% DEF TRAIN # GBRX711580 T # 2&4 TRC # 303132025L

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	32.2	SPT	3/19/2025	Pass	
Refractive Index @ 20degC	N_D^{20}	22241-2 Annex C	1.3814-1.3843	1.3826	NAC	3/19/2025	Pass	
Alkalinity as NH ₃	%	22241-2 Annex D	<0.2	0.02	MDC	3/19/2025	Pass	
Biuret	%	22241-2 Annex E	<0.3	0.16	NAC	3/19/2025	Pass	
Aldehyde	mg/kg	22241-2 Annex F	<5.0	<1.0	MFB	3/18/2025	Pass	
Insolubles	mg/kg	22241-2 Annex G	<20	<2.5	MFB	3/17/2025	Pass	
Aluminum by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	3/18/2025	Pass	
Calcium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	3/18/2025	Pass	
Chromium by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.06	BDK	3/18/2025	Pass	
Copper by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.06	BDK	3/18/2025	Pass	
Iron by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	3/18/2025	Pass	
Magnesium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	3/18/2025	Pass	
Nickel by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.06	BDK	3/18/2025	Pass	
Phosphate by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.46	BDK	3/18/2025	Pass	
Potassium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	3/18/2025	Pass	
Sodium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	3/18/2025	Pass	
Zinc by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.06	BDK	3/18/2025	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	1.0888	MFB	3/17/2025		

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.

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Certification Approval _

Laboratory Director: Anthony J Scala

Enalytic DUNS Reg. Number: 02-636-0096

Date: 3/19/2025

Page 1 of 1



6034 Corporate Dr. East Syracuse NY 13057 Web Site: Enalytic.com Ph:315-437-0255

ISO/IEC 17025:2017

** Amended **

Enalytic ID E2503040-002 TRAIN #4 GAT224270 TRC# 303182025P T# 17&5 Sample ID DEF 32.9% Date Sampled 3/18/2025 Date Received 3/20/2025 Certificate Number: L24-103

ISO 17025

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 3/25/2025

Certificate of Analysis

Diesel Exhaust Fluid Analytical ISO-22241

Client ID4: 32.9% DEF TRAIN # GAT224270 T # 17&5 TRC # 303182025P

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	32.7	SPT	3/24/2025	Pass
Refractive Index @ 20degC	N_D^{20}	22241-2 Annex C	1.3814-1.3843	1.3833	NAC	3/24/2025	Pass
Alkalinity as NH ₃	%	22241-2 Annex D	<0.2	0.10	NAC	3/24/2025	Pass
Biuret	%	22241-2 Annex E	<0.3	0.17	NAC	3/24/2025	Pass
Aldehyde	mg/kg	22241-2 Annex F	<5.0	<1.0	MFB	3/24/2025	Pass
Insolubles	mg/kg	22241-2 Annex G	<20	<2.5	MFB	3/21/2025	Pass
Aluminum by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	3/21/2025	Pass
Calcium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	0.30	BDK	3/21/2025	Pass
Chromium by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.06	BDK	3/21/2025	Pass
Copper by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.06	BDK	3/21/2025	Pass
Iron by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	3/21/2025	Pass
Magnesium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	3/21/2025	Pass
Nickel by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.06	BDK	3/21/2025	Pass
Phosphate by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.46	BDK	3/21/2025	Pass
Potassium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	3/21/2025	Pass
Sodium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	3/21/2025	Pass
Zinc by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.06	BDK	3/21/2025	Pass
	Mi	scellaneous Sec	ondary Unregula	ated Qualit	y Standards		
Identify by FTIR (attached) ³	Spectra	22241-2 Annex J	Control Match				
Density @ 20degC	g/cm ³	3675	Not Applicable	1.0909	MFB	3/24/2025	

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	1.0909	MFB	3/24/2025		

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 Report has been Amended to correct the TRAIN #.

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Certification Approval

Laboratory Director: Anthony J Scala

Date: 3/25/2025



Report Date 4/8/2025

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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

Enalytic ID E2504009-001 TRAIN# GATX222494 TRC# 304012025T T# 1&2 Sample ID DEF 32.4% Date Sampled 4/1/2025 Date Received 4/4/2025 Certificate Number: L24-103 ISO 17025

Certificate of Analysis

Diesel Exhaust Fluid Analytical ISO-22241

Client ID: 32.4% DEF TRAIN # GATX222494 T # 1&2 TRC # 304012025T

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	4/8/2025	Pass	
Refractive Index @ 20degC	N_D^{20}	22241-2 Annex C	1.3814-1.3843	1.3822	CTM	4/4/2025	Pass	
Alkalinity as NH ₃	%	22241-2 Annex D	<0.2	0.02	MFB	4/4/2025	Pass	
Biuret	%	22241-2 Annex E	<0.3	0.15	SPT	4/7/2025	Pass	
Aldehyde	mg/kg	22241-2 Annex F	<5.0	<1.0	MFB	4/8/2025	Pass	
Insolubles	mg/kg	22241-2 Annex G	<20	<2.5	SPT	4/7/2025	Pass	
Aluminum by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	4/7/2025	Pass	
Calcium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	4/7/2025	Pass	
Chromium by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.06	BDK	4/7/2025	Pass	
Copper by ICP-OES	mg/kg	22241-2 Annex I	<0.2	0.12	BDK	4/7/2025	Pass	
Iron by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	4/7/2025	Pass	
Magnesium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.15	BDK	4/7/2025	Pass	
Nickel by ICP-OES	mg/kg	22241-2 Annex I	<0.2	0.12	BDK	4/7/2025	Pass	
Phosphate by ICP-OES	mg/kg	22241-2 Annex I	<0.5	<0.46	BDK	4/7/2025	Pass	
Potassium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	0.30	BDK	4/7/2025	Pass	
Sodium by ICP-OES	mg/kg	22241-2 Annex I	<0.5	0.18	BDK	4/7/2025	Pass	
Zinc by ICP-OES	mg/kg	22241-2 Annex I	<0.2	<0.06	BDK	4/7/2025	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	CTM	4/4/2025		

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Laboratory Director: Anthony J Scala

Enalytic DUNS Reg. Number: 02-636-0096

Date: 4/8/2025