

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	E2201013-001
Batch Number	312292021M
Train Number	GATX223442
Sample ID	DEF 48.9%
Date Sampled	12/29/2021
Date Received	1/7/2022
Date Reported	1/18/2022

Certificate of Analysis

Diesel Exhaust Fluid Analytical ISO-22241

Client ID: 48.9% DEF Batch# 312292021M Train# GATX223442

Test Parameter/Method	Units	Test Method (ISO) ¹	Acceptable Limit ²	Results	Chemist	Analysis Date	Pass/Fail
Urea Content	wt%	22241-2 Annex C	---	48.2	SPT	1/18/2022	Pass
Refractive Index @ 20degC	N _D ²⁰	22241-2 Annex C	1.4115	1.4094	ALB	1/12/2022	Pass
Alkalinity as NH ₃	%	22241-2 Annex D	<0.31	0.13	ALB	1/12/2022	Pass
Biuret	%	22241-2 Annex E	<0.46	0.21	MDC	1/18/2022	Pass
Aldehyde	mg/kg	22241-2 Annex F	<7.7	1.2	MDC	1/17/2022	Pass
Insolubles	mg/kg	22241-2 Annex G	<31	<2.0	ALB	1/13/2022	Pass
Aluminum by ICP-OES	mg/kg	22241-2 Annex I	<0.77	<0.05	DSD	1/11/2022	Pass
Calcium by ICP-OES	mg/kg	22241-2 Annex I	<0.77	<0.05	DSD	1/11/2022	Pass
Chromium by ICP-OES	mg/kg	22241-2 Annex I	<0.31	<0.02	DSD	1/11/2022	Pass
Copper by ICP-OES	mg/kg	22241-2 Annex I	<0.31	<0.02	DSD	1/11/2022	Pass
Iron by ICP-OES	mg/kg	22241-2 Annex I	<0.77	<0.05	DSD	1/11/2022	Pass
Magnesium by ICP-OES	mg/kg	22241-2 Annex I	<0.77	<0.05	DSD	1/11/2022	Pass
Nickel by ICP-OES	mg/kg	22241-2 Annex I	<0.31	<0.02	DSD	1/11/2022	Pass
Phosphate by ICP-OES	mg/kg	22241-2 Annex I	<0.77	<0.25	DSD	1/11/2022	Pass
Potassium by ICP-OES	mg/kg	22241-2 Annex I	<0.77	<0.05	DSD	1/11/2022	Pass
Sodium by ICP-OES	mg/kg	22241-2 Annex I	<0.77	<0.05	DSD	1/11/2022	Pass
Zinc by ICP-OES	mg/kg	22241-2 Annex I	<0.31	<0.02	DSD	1/11/2022	Pass
Miscellaneous Secondary Unregulated Quality Standards							
Identify by FTIR (attached)	Spectra	22241-2 Annex J	Control Match	Match	ALB	1/12/2022	---
Density @ 20degC	g/cm ³	3675	Not Applicable	1.1368	ALB	1/12/2022	---

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

Note 2: The values reported are for estimating the acceptable values, as there are no regulations for 50%.

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

Certification Approval _____

Laboratory Director: Anthony J Scala

Date: 1/18/2022