

Client:	DEF Products, LLC
Contact	Joe Servin, General Manager
Address	422 East Barioni Blvd Imperial, CA 02251
Email	<a href="mailto:defproducts@gmail.com">defproducts@gmail.com</a>
Phone	760 355 7997

Enalytic ID	E2006035-002
Batch Number	306122020M
Train Number	GATX220491
Sample ID	DEF 40.0%
Date Sampled	6/12/2020
Date Received	6/15/2020
Report Date	6/18/2020

## Certificate of Analysis

Diesel Exhaust Fluid Analytical ISO-22241

Client ID: 40.0% DEF Batch# 306122020M Train# GATX220491

Test Parameter/Method	Units	Test Method (ISO) <sup>1</sup>	Acceptable Limit <sup>2</sup>	Results	Chemist	Analysis Date	Pass/Fail
Urea Content	wt%	22241-2 Annex C	39.1-40.8	41.1	SPT	6/16/2020	Pass
Refractive Index @ 20degC	N <sub>D</sub> <sup>20</sup>	22241-2 Annex C	1.3917 -1.3982	1.3962	BDK	6/16/2020	Pass
Alkalinity as NH <sub>3</sub>	%	22241-2 Annex D	<0.4	<0.01	BDK	6/16/2020	Pass
Biuret	%	22241-2 Annex E	<0.4	0.23	BDK	6/16/2020	Pass
Aldehyde	mg/kg	22241-2 Annex F	<6	<1.0	BDK	6/17/2020	Pass
Insolubles	mg/kg	22241-2 Annex G	<25	<2.0	BDK	6/16/2020	Pass
Phosphate by ICP-OES	mg/kg	22241-2 Annex I	<0.6	0.35	CLB	6/15/2020	Pass
Calcium by ICP-OES	mg/kg	22241-2 Annex I	<0.6	0.09	CLB	6/15/2020	Pass
Iron by ICP-OES	mg/kg	22241-2 Annex I	<0.6	<0.05	CLB	6/15/2020	Pass
Copper by ICP-OES	mg/kg	22241-2 Annex I	<0.3	<0.02	CLB	6/15/2020	Pass
Zinc by ICP-OES	mg/kg	22241-2 Annex I	<0.3	<0.02	CLB	6/15/2020	Pass
Chromium by ICP-OES	mg/kg	22241-2 Annex I	<0.3	0.03	CLB	6/15/2020	Pass
Nickel by ICP-OES	mg/kg	22241-2 Annex I	<0.3	<0.02	CLB	6/15/2020	Pass
Aluminum by ICP-OES	mg/kg	22241-2 Annex I	<0.6	<0.05	CLB	6/15/2020	Pass
Magnesium by ICP-OES	mg/kg	22241-2 Annex I	<0.6	<0.05	CLB	6/15/2020	Pass
Sodium by ICP-OES	mg/kg	22241-2 Annex I	<0.6	0.08	CLB	6/15/2020	Pass
Potassium by ICP-OES	mg/kg	22241-2 Annex I	<0.6	<0.05	CLB	6/15/2020	Pass
Miscellaneous Secondary Unregulated Quality Standards							
Identify by FTIR (attached)	Spectra	22241-2 Annex J	Control Match	Match	BDK	6/17/2020	---
Density @ 20degC	g/cm <sup>3</sup>	3675	Not Applicable	1.1140	BDK	6/16/2020	---

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

Note 2: The acceptable values are based on the standard 40.0% 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: 6/18/2020