

Amalgamated Laboratories, Inc.

2965 West Osborn

Phoenix, AZ 85017

Phone: 602-252-0280 Fax: 602-252-0282 E-mail [info@amalgatech.com](mailto:info@amalgatech.com)

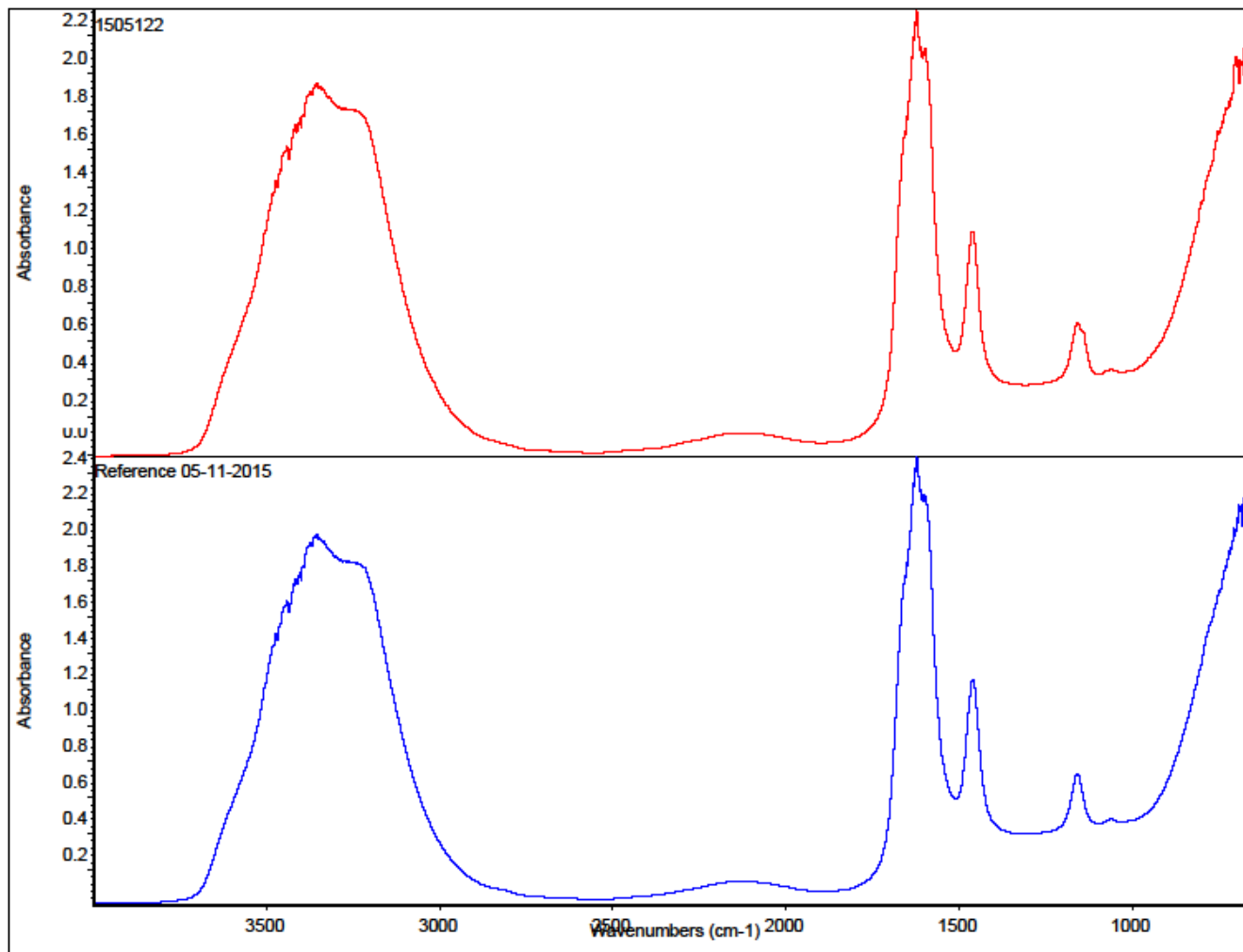
<b>Contact:</b>	Ray Pedersen	<b>Sample ID</b>	32.5 DEF 305042015
<b>Company:</b>	DEF Products	<b>Batch #</b>	32.5 DEF 305042015
<b>Address:</b>	422 East Barioni Drive	<b>Date sampled</b>	5/11/2015
		<b>Date Received</b>	5/12/2015
<b>City, ST, Zip</b>	Imperial, 92251 92251	<b>Date Promised</b>	5/17/2015
<b>E-Mail</b>	defproducts@gmail.com	<b>Amalgatech ID</b>	1505122
<b>Phone / Fax</b>	760427-4479 /	<b>Report Date</b>	5/13/2015

### Diesel Exhaust Fluid per ISO 22241<sup>1</sup>

Characteristics	Unit	Test Methods	Limits		Acceptance Range <sup>2</sup>		Results
			min.	max.	min.	max.	
Urea content	% (m/m)	ISO 22241-2 Annex A ISO 22241-2 Annex B	31.8	33.2	30.8	34.2	31.9
Density at 20°C	kg/m <sup>3</sup>	ISO 3675 or ISO 12185	1087.0	1093.0	1086.5	1093.5	1088.4
Refractive index at 20°C	---	ISO 22241-2 Annex C	1.3814	1.3843	1.3804	1.3853	1.3821
Alkalinity as NH <sub>3</sub>	%m/m	ISO 22241-2 Annex D	---	0.2	---	0.24	0.01
Biuret	%m/m	ISO 22241-2 Annex E	---	0.3	---	0.34	0.159
Aldehydes	mg/kg	ISO 22241-2 Annex F	---	5.0	---	7.4	2.3
Insoluble matter	mg/kg	ISO 22241-2 Annex G	---	20	---	27.6	10.31
Phosphate (PO <sub>4</sub> )	mg/kg	ISO 22241-2 Annex H	---	0.5	---	0.53	0.09
Calcium	mg/kg	ISO 22241-2 Annex I	---	0.5	---	0.55	0.28
Iron	mg/kg	ISO 22241-2 Annex I	---	0.5	---	0.65	0.03
Copper	mg/kg	ISO 22241-2 Annex I	---	0.2	---	0.24	0.00
Zinc	mg/kg	ISO 22241-2 Annex I	---	0.2	---	0.26	0.00
Chromium	mg/kg	ISO 22241-2 Annex I	---	0.2	---	0.26	0.00
Nickel	mg/kg	ISO 22241-2 Annex I	---	0.2	---	0.26	0.00
Aluminum	mg/kg	ISO 22241-2 Annex I	---	0.5	---	0.65	0.03
Magnesium	mg/kg	ISO 22241-2 Annex I	---	0.5	---	0.65	0.04
Sodium	mg/kg	ISO 22241-2 Annex I	---	0.5	---	0.75	0.12
Potassium	mg/kg	ISO 22241-2 Annex I	---	0.5	---	0.75	0.17
Identity	---	ISO 22241-2 Annex J	Identical to reference		Identical to reference		Identical to Reference
<b>Comments by Amalgatech:</b>							

<sup>2</sup> Acceptance Range = Limit adjusted for reproducibility per Annex B

Supporting Graph:



**Important note:** Amalgatech receives samples that are identified by the customer/sender and takes these identifications in good faith, reporting data to the customer using the customer's identification. Our laboratory services are not intended for marketing and are not product certifications. This report is © Amalgatech division, Amalgated Laboratories, Inc. 2011. It may not be reproduced, altered, copied or disseminated except in whole. Use of the report is permitted, including copying, as long as the entire report, including this information section, is always provided in its entirety.

NOTE <sup>1</sup> Amalgatech has performed the test in accordance with the revision of the standard in place at the time the test was performed. Amalgatech uses only active standards.

Respectfully submitted,

AMALGATECH DIVISION  
AMALGATED LABORATORIES, INC.

Ed Eaton  
Chief Engineer