



ATLANTA WAREHOUSE
3939 Royal Drive, Suite 139
Kennesaw, GA 30144

UTAH WAREHOUSE
647 West Billinis Road, Unit 1
Salt Lake City, Utah 84119

DATE : 8-Sep-15

CERTIFICATE OF ANALYSIS

QUANTITY/COMMODITY : 18 MT (72 DRUMS)
GLYCERINE - USP/KOSHER 99.7% MIN

PACKING : IN 250KG NEW LINED STEEL DRUMS, PALLETIZED IN 20'FCL

CONTAINER / BATCH NO : TCLU 3676039 (G150829-4W)

PRODUCTION DATE : AUGUST 29, 2015

EXPIRY DATE : AUGUST 29,2016

VESSEL : AS SAVONIA V.0632-005W/EVER LINKING V.0802-010W

PI NO : 15/GR1035

CONSIGNEE PO NUMBER PD081715SAV-A

A COMPOSITE SAMPLE WAS DRAWN FROM THE ABOVE-MENTIONED CONSIGNMENT FOR ANALYSIS. ON ANALYSIS THE FOLLOWING RESULTS WERE OBTAINED :

<u>Parameter</u>	<u>Unit</u>	<u>Result</u>	<u>Specification</u>	<u>Test Method</u>
Appearance		Transparent	Transparent	Visual
Identification A (IR)		Conform	Conform	USP 38 : 2015 (197F)
Identification B				
- Diethylene Glycol	%	<0.10	0.10 max	USP 38: 2015
- Ethylene Glycol	%	<0.10	0.10 max	USP 38: 2015
Identification C				
(Confirmation of Glycerin by GC)		Conform	Conform	USP 38: 2015
Glycerine Content	%	99.8	99.7 min	USP 38 : 2015
Inorganic Impurities :				
- Chloride	ppm	<10	10 max	USP 38: 2015 (221)
- Sulfate	ppm	<20	20 max	USP 38: 2015 (221)
- Heavy Metal as Pb	ppm	< 5	5 max	USP 38: 2015 (231)
- Residue on Ignition	%	0.006	0.01 max	USP 38: 2015 (281)
Organic Impurities :				
- Related Compounds				
- Individual Impurities	%	NIL	0.10 max	USP 38: 2015
- Total Impurities	%	NIL	1.0 max	USP 38: 2015
- Chlorinated Compounds	ppm	<30	30 max	USP 38: 2015
Fatty Acids & Esters		0.28	1 max	USP 38: 2015
(as mL of 0.5N NaOH/50 g)				
Specific Gravity @ 25		1.2614	1.2612 min	USP 38: 2015 (841)
Moisture Content	%	0.14	0.3 max	USP 38: 2015 (921)
Color	APHA	5	10 max	AOCS Ea 9-65