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DATE: 30/09/2017
 REF: 17093001-1

CERTIFICATE OF ANALYSIS

CUSTOMER : COMERCIALIZADORA RAHCO 1010, C.A.
 REFINED GLYCERINE 99.7% MIN USP GRADE KOSHER
 CERTIFIED
 GOODS :
 BATCH NO. : D170928-13-1
 TOTAL NO. OF PACKAGES : 80 DRUMS
 PACKED IN 250 KGS
 NEW HDPE DRUMS
 PRODUCTION DATE : 28th SEPTEMBER 2017
 EXPIRY DATE : 27th SEPTEMBER 2019

ANALYSIS RESULTS OF:

PARAMETERS	TEST METHODS	SPECIFICATION	RESULTS
GLYCERIN, % ASSAY (C ₃ H ₈ O ₃ , CALCULATED ON THE ANHYDROUS BASIS)	USP 40	99.0-101.0	99.90
WATER CONTENT, % W/W	USP 40	5.0 MAX	0.10
SPECIFIC GRAVITY @ 25°C	USP 40	1.249 MIN	1.2618
COLOR	USP 40	PASSED	PASSED
RESIDUE ON IGNITION, %	USP 40	0.01 MAX	<0.01
CHLORIDES, PPM	USP 40	10 MAX	<10
SULFATES, PPM	USP 40	20 MAX	<20
HEAVY METALS (as Pb), PPM	USP 40	5 MAX	<5
LIMIT OF CHLORINATED COMPOUNDS, PPM	USP 40	30 MAX	<30
FA & E AS ML OF 0.5 NaOH MAX	USP 40	1 MAX	0.5 ML OF 0.5N NaOH WAS CONSUMED
<u>IDENTIFICATION</u>	USP 40	PASSED	PASSED
-A (IR)			
-B (LIMIT OF DIETHYLENE GLYCOL & ETHYLENE GLYCOL)			
- DIETHYLENE GLYCOL, &		0.10 MAX	<0.10
- ETHYLENE GLYCOL, %		0.10 MAX	<0.10
-C (RT OF GLYCERINE'S PEAK)		MEET TEST REQUIREMENT	MEET TEST REQUIREMENT
<u>RELATED COMPOUNDS</u>	USP 40		
-INDIVIDUAL IMPURITIES (EXCLUDING ANY SOLVENT PEAK & DIETHYLENE GLYCOL), %		0.1 MAX	ALL THE INDIVIDUAL IMPURITIES ARE LESS THAN 0.1
-TOTAL IMPURITIES, %		1.0 MAX	<1.0
GLYCEROL, %	APAG-GL-008	99.7 % MIN	99.90
COLOR, APHA	AOCS Ea 9-65: 1997	10 MAX	4
ARSENIC, PPM	USP 32 <231>	1.5 MAX	<0.1

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