

CERTIFICATE OF ANALYSIS (COA)

REPORT OF PHYSICAL AND CHEMICAL ANALYSIS / QUALITY CERTIFICATE
TO THE BEST OF OUR KNOWLEDGE, WE CERTIFY THE INFORMATION IS TRUE AND CORRECT.

PRODUCT:	GLYCERINE 99.5 USP KOSHER		
CERTIFICATE DATE:	MAY 21ST, 2022	DATE OF PRODUCTION:	APRIL 08TH, 2022
CERTIFICATE Nº:	191278404/2022	EXPIRY DATE:	OCTOBER 08TH, 2023
BATCH Nº:	280614120221	DATE O COMPLETION OF TESTS:	MAY 11TH, 2022
SHIPPED ON BOARD DATE:	MAY 21ST, 2022		
SUPPLIER:	MERIDIONAL TCS INDUSTRIA E COMERCIO DE OLEOS S/A		
CONSIGNEE:	RIERDEN CHEMICAL & TRADING COMPANY 115 WEST CHURCH ST. LIBERTYVILLE, IL 60048 PH: 847-816-9310 FX: 847-816-9318 import@rierdenchemical.com		
PORT OF LOADING:	PARANAGUA, BRAZIL	PORT OF DESTINATION:	HOUSTON TX, USA
B/L NUMBER:	217571085	BOOKING:	217571085
VESSEL:	NORTHERN DELEGATION	VOYAGE NUMBER:	219N
COUNTRY OF ORIGIN:	BRAZIL	DOCUMENTARY CREDIT NUMBER / LC NUMBER:	NIHIL

PHYSICAL – CHEMICAL RESULTS			
PARAMETER	TEST METHOD	CONTRACT SPECIFICATION	RESULT
Aspect (@25°C)	Viscous, limpid and colourless	Visual	Viscous, limpid and colourless
Odor / Smell	POP MTCS 09	Characteristic	Characteristic
Glicerina / Glycerin (%)	AOCS Ea 6-94	≥99,50	99,70
Identification A (I.R.)	USP PHARMACOPEIA USP 41	Pass	Pass
Identification C (Chromatography)	USP PHARMACOPEIA USP 41	Pass	Pass
Impurities and related Substances (Total %m/m)	USP PHARMACOPEIA USP 41	≤1,00	≤1,00
Acidity and alkalinity (ml NaOH 0,1N)	PH EURO 01/2008:0496	≤0,20	<0,01
Refractive Index	PH EURO 01/2008:0496	1,470 – 1,475	1,4737
Aldehydes (ppm)	EP 7 th Ed	≤10,00	≤10,00
Halogenated Compounds (ppm)	USP PHARMACOPEIA USP 41	≤30,00	≤30,00
Specific Weight 20°C (Kg/L)	USP PHARMACOPEIA USP 41	1,2590 – 1,2630	1,2630
Specific Weight 25°C (Kg/L)	USP PHARMACOPEIA USP 41	1,2550 – 1,2600	1,2697
Color (Apha)	ASTM 1209	≤10,00	4,00
Ignition Residue – Ash (%m/m)	USP PHARMACOPEIA USP 41	≤0,01	≤0,01
Water (%m/m)	USP PHARMACOPEIA USP 41	≤0,50	0,27
pH (sol. 10 / 25°C)	POTENCIOMETRIC	5 – 8	6,55
Fatty Acids and esters (ml NaOH 0.5N)	USP PHARMACOPEIA USP 41	≤1,00	0,18
Chlorides (ppm)	USP PHARMACOPEIA USP 41	≤10,00	≤10,00
Sulphates (ppm)	USP PHARMACOPEIA USP 41	≤20,00	≤10,00
Diethylene Glycol and related(%m/m)	USP PHARMACOPEIA USP 41	≤0,10	≤0,10
Ethylene Glycol (%m/m)	USP PHARMACOPEIA USP 41	≤0,10	≤0,10
Heavy Metals, as Pb (%m/m)	USP PHARMACOPEIA USP 41	≤5,00	≤5,00

WE CERTIFY THE ABOVE IS TRUE AND CORRECT


Herborisa Indústria e Comércio Ltda.

HERBORISA INDUSTRIA E COMERCIO LTDA
 LOC ESTRADA PITANGUEIRAS
 KM 05 – CEP. 86 600-000
 GLEBA ROLAND
 ROLANDIA – PR - BRASIL