

PT. WILMAR NABATI INDONESIA



DATE: 05 JUNE 2021

CERTIFICATE OF ANALYSIS

REF NO. : G/QC/GSK/21/V1-016
 QUANTITY/COMMODITY : 80.000 MT (64 IBC)
 GLYCERINE-USP/KOSHER 99.7% MIN
 PACKING : IN 1250 KG IBC
 MANUFACTURING DATE : MAY 18, 2021; MAY 29, 2021
 BEST BEFORE : MAY 18, 2023; MAY 29, 2023
 VESSEL : MSC NILA V.HC121R / YORK V.124E
 PLNO : 100221RK0460
 CONTAINER / BATCH NO : TCLU 7300760 (G210518-1W); GLDU 3724628 (G210529-4W);
 FCU 6039479 (G210529-3W); MEIU 2941153 (G210529-5W)

BUYER'S PO NUMBER : TK12142010U-D

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

Parameter	Unit	Result	Specification	Test Method
Appearance		Transparent	Transparent	Visual
Identification A (IR)		Conform	Conform	USP 42 : 2019 (197F)
Identification B				
- Diethylene Glycol	%	<0.10	0.10 max	USP 42: 2019
- Ethylene Glycol	%	<0.10	0.10 max	
Identification C		Conform	Conform	USP 42: 2019
(Confirmation of Glycerin by GC)				
Glycerine Content	%	99.8	99.7 min	USP 42 : 2019
Inorganic Impurities :				
- Chloride Content	ppm	<10	10 max	USP 42: 2019 (221)
- Sulfate Content	ppm	<20	20 max	USP 42: 2019 (221)
- Residue on Ignition	%	0.005	0.01 max	USP 42: 2019 (281)
Organic Impurities :				
- Related Compounds				
- Individual Impurities	%	<0.1	0.10 max	USP 42: 2019
- Total Impurities	%	<1.0	1.0 max	USP 42: 2019
- Chlorinated Compounds	ppm	<30	30 max	USP 42: 2019
Fatty Acids & Esters		0.20	1 max	USP 42: 2019
(as mL of 0.5N NaOH/50 g)				
Color (mL FeCl3)	-	<0.4	0.4 max	USP 42: 2019
Specific Gravity @ 25		1.2614	1.2612 min	USP 42: 2019 (841)
Moisture Content	%	0.10	0.3 max	USP 42: 2019 (921)
Color	APIA	5	10 max	AOCS Ea 9-65
Heavy Metals as Pb	ppm	< 5	5 max	USP 42: 2019



Rilko Juhardi
 QC Head