

PT. WILMAR NABATI INDONESIA



DATE: 16 JANUARY 2020

CERTIFICATE OF ANALYSIS

QUANTITY/COMMODITY : 20 MT (80 DRUMS)
REFINED GLYCERINE USP 99.7

PACKING : IN 250KG NEW LINED STEEL DRUMS, LOOSE STUFFED

MANUFACTURING DATE : JANUARY 01, 2020

BEST BEFORE : JANUARY 01, 2021

VESSEL : NAVIOS VERDE V.065N/ULSAN EXPRESS V.030W

PI NO : 100219RK4560

CONTAINER / BATCH NO : CAIU 2610175 (G200101-6W)

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 41 : 2018 (197F)
Identification B				
- Diethylene Glycol	%	<0.10	0.10 max	USP 41: 2018
- Ethylene Glycol	%	<0.10	0.10 max	USP 41: 2018
Identification C				
(Confirmation of Glycerin by GC)		Conform	Conform	USP 41: 2018
Glycerine Content	%	99.8	99.7 min	USP 41 : 2018
Inorganic Impurities :				
- Chloride Content	ppm	<10	10 max	USP 41: 2018 (221)
- Sulfate Content	ppm	<20	20 max	USP 41: 2018 (221)
- Residue on Ignition	%	0.007	0.01 max	USP 41: 2018 (281)
Organic Impurities :				
- Related Compounds				
- Individual Impurities	%	<0.1	0.10 max	USP 41: 2018
- Total Impurities	%	<1.0	1.0 max	USP 41: 2018
- Chlorinated Compounds	ppm	<30	30 max	USP 41: 2018
Fatty Acids & Esters				
(as mL of 0.5N NaOH/50 g)		0.25	1 max	USP 41: 2018
Color (mL FeCl3)	-	<0.4	0.4 max	USP 41: 2018
Specific Gravity @ 25		1.2614	1.2612 min	USP 41: 2018 (841)
Moisture Content	%	0.10	0.3 max	USP 41: 2018 (921)
Color	APHA	5	10 max	AOCS Ea 9-65
Heavy Metal as Pb	ppm	< 5	5 max	USP 41: 2018

for and on behalf of
PT. WILMAR NABATI INDONESIA

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(AS MANUFACTURER)

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