

**PALM-OLEO SDN. BHD.** (185886-V)

Lot 1245, Kundang Industrial Estate,  
48020 Rawang, Selangor Darul Ehsan, Malaysia.

Sales Office : 603-7809 8833 Fax : 603-7727 1301/1307  
Manufacturing : 603-6034 4800 Fax : 603-6034 2340 / 603-6034 1279



## CERTIFICATE OF ANALYSIS

PRODUCT : PALMERA REFINED GLYCERINE USP 99.7% LIQUID  
DATE OF CERTIFICATE : 10-SEPTEMBER-2022  
OUR SALES ORDER : 2000268094-0  
BATCH NUMBER/ LOT NUMBER : 1A1662H  
QUANTITY : 60.000 MT  
MANUFACTURING DATE/ PRODUCTION DATE : 23-AUGUST-2022  
RECOMMENDED RETEST DATE/ EXPIRY DATE : 22-AUGUST-2024  
CUSTOMER PO NUMBER : UCS10082022/187

We certify, that we have examined a sample of the above mentioned goods with the following results :

<u>Test Description</u>	<u>Unit</u>	<u>Reference Test Method</u>	<u>Min</u>	<u>Max</u>	<u>Result</u>
Glycerine Content	%	USP	99.7		99.9
Specific Gravity 25/25°C		USP	1.2612		1.2617
Colour APHA	HAZEN	AOCS Ea 9-65		10	1
*Residue on Ignition	%	USP		0.01	<0.01
Chloride	ppm	USP		10	3
*Sulfate, ≤ 20 ppm		USP	Pass		Pass
*Heavy Metals as Pb, ≤ 5 ppm		USP	Pass		Pass
*Chlorinated Compounds, ≤ 30 ppm		USP	Pass		Pass
Fatty Acids & Esters, ml 0.5N NaOH	ml	USP		1.0	0.5
Water	%	USP		0.3	0.0
*Identification A - Infrared Absorption		USP	Pass		Pass
*Identification B - Limit of DEG & EG, < 0.1% respectively		USP	Pass		Pass
*Identification C - Chromatography		USP	Pass		Pass
Related Compounds -*Individual Impurities	%	USP		0.1	<0.1
Related Compounds -*Total Impurities	%	USP		1.0	<1.0

\* Parameter is not tested on every batch and result is determined statistically

Recommended retest date/expiry date is only valid for product in its original and unopened package.

**This is a computer generated printout and no signature is required.**

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## CERTIFICATE OF ANALYSIS

PRODUCT : PALMERA REFINED GLYCERINE USP 99.7% LIQUID  
DATE OF CERTIFICATE : 10-SEPTEMBER-2022  
OUR SALES ORDER : 2000268094-0  
BATCH NUMBER/ LOT NUMBER : 1A1672H  
QUANTITY : 40.000 MT  
MANUFACTURING DATE/ PRODUCTION DATE : 23-AUGUST-2022  
RECOMMENDED RETEST DATE/ EXPIRY DATE : 22-AUGUST-2024  
CUSTOMER PO NUMBER : UCS10082022/187

We certify, that we have examined a sample of the above mentioned goods with the following results :

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Chloride	ppm	USP		10	3
*Sulfate, ≤ 20 ppm		USP	Pass		Pass
*Heavy Metals as Pb, ≤ 5 ppm		USP	Pass		Pass
*Chlorinated Compounds, ≤ 30 ppm		USP	Pass		Pass
Fatty Acids & Esters, ml 0.5N NaOH	ml	USP		1.0	0.5
Water	%	USP		0.3	0.0
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*Identification B - Limit of DEG & EG, < 0.1% respectively		USP	Pass		Pass
*Identification C - Chromatography		USP	Pass		Pass
Related Compounds -*Individual Impurities	%	USP		0.1	<0.1
Related Compounds -*Total Impurities	%	USP		1.0	<1.0

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**PALM-OLEO SDN. BHD.**



**GLYCERINE**

**NETT WEIGHT : 250 KG**

**LOT NO : 1A0453C**

**0122**

**PRODUCTION DATE : 05-03-2023**

**EXPIRY DATE : 04-03-2025**



**OLEO**

PALM OLEO S.O.M. 840  
GLYCERINE  
NETT WEIGHT 200KG  
LOT NO: 1A0423C  
PRODUCTION DATE 04/2023  
EXPIRY DATE 04/2025