

# CERTIFICATE OF ANALYSIS

PRODUCT : PÁLMEŔOL 6830 CETO-STEÁRYL ALCOHOL  
DATE OF CERTIFICATE : 12-FEBRUARY-2018  
OUR SALES ORDER : 2000070967-0  
BATCH NUMBER/ LOT NUMBER : 1K0317M  
QUANTITY : 34.600 MT  
MANUFACTURING DATE/ PRODUCTION DATE : 26-DECEMBER-2017  
RECOMMENDED RETEST DATE/ EXPIRY DATE : 26-DECEMBER-2019

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>
Appearance - White Pastilles. Clear when melted		Visual	Pass		Pass
Color APHA	HAZEN	ASTM D1209		10	3
Moisture	%	ASTM E203		0.30	0.08
Acid Value	mg KOH/g	AOCS Te 1a-64		0.10	0.01
Saponification Value	mg KOH/g	ASTM D5558		1.00	0.24
Iodine Value	g I <sub>2</sub> /100g	AOCS Cd 1b-87/AOCS Tg 2a-64		0.5	0.0
Melting Point	°C	AOCS Cc 1-25	48.0	56.0	54.1
Hydroxyl Value	mg KOH/g	By Calculation	210	220	214
Hydrocarbon	%	GC, in-house method		0.50	0.08
≤C14 (1-Tetradecanol)	%	GC, in-house method		2.50	0.10
C16 (1-Hexadecanol)	%	GC, in-house method	22.00	32.00	29.18
C18 (1-Octadecanol)	%	GC, in-house method	65.00	75.00	70.29
≥C20 (1-Eicosanol)	%	GC, in-house method		1.00	0.12

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