



Apical

Explore Our Palm-derived

Oleochemicals

for Everyday Products



A leading processor of vegetable oils

Apical Group is a leading vegetable oils processor with an expanding global footprint. Its business includes the downstream processing into oleochemicals, functional and specialty fats, and renewable fuel among others, for domestic use and international export. Its operations are located in Indonesia, China and Spain. Through joint ventures, Apical also has processing and distribution operations in Brazil, Dubai, India, Myanmar, Pakistan, Philippines, USA and Vietnam. Our products are used by millions of people daily, and our customers include edible oil traders, consumer goods manufacturers and renewable fuel manufacturers.



Starting materials for many different everyday products

Vegetable oils especially those derived from palm fruits have a major advantage compared to other oil crops due to its competitive price, affordability, high productivity and overall efficiency. It is regulated and produced in a sustainable manner, making it an eco-friendly choice.

Apical's oleochemical plants are located in Indonesia and China. Its oleochemical product range includes Fatty Acids, Refined Glycerine and derivatives such as Soap Noodles. With an experienced team with technical knowhows, Apical provides customers with product customisation, application advice and innovative solutions.

For more information on Apical Group, visit www.apicalgroup.com

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Fatty Acids



APICID

APICID, Apical's Fatty Acid product range is palm based and various chains of fatty acids are produced through the splitting, fractionation and distillation process.

Fatty Acids are used widely in personal care products, cosmetics, detergents, soap, pharmaceuticals, food, lubricants, paints and coating, resins, rubber and plastics, textiles auxiliaries and candles among others.



OUR FATTY ACIDS INCLUDE:

- Caproic Acid
- Caprylic Acid
- Capric Acid
- Caprylic-Capric Acid Blend
- Lauric Acid
- Myristic Acid
- Palmitic Acid
- Oleic Acid
- Stearic Acid
- Triple Pressed Stearic Acid
- Rubber Grade Stearic Acid
- Distilled Coconut Fatty Acid
- Distilled Palm Kernel Fatty Acid
- Distilled Palm Stearic Acid
- Distilled Palm Oil Fatty Acid

Fatty Acid	Majo FA	Product Grade	Approximate Fatty Acid Composition (%)										Nickel (ppm)	FFA (%)	Specifications					
			C6: Caproic Acid	C8: Caprylic Acid	C10: Capric Acid	C12: Lauric Acid	C14: Myristic Acid	C16: Palmitic Acid	C18: Stearic Acid	C18 1: Oleic Acid	C18 2: Linoleic Acid	Others			Acid Value (mg KOH/g)	Saponi- fication Value (mg KOH/g)	Iodine Value (gI2/100g)	Titer (°C)	COLOR Lovibond (Yellow/Red)	COLOR APHA (Hazen)
Caproic Acid 80%	C6-80%	Apicid CC-0680	80 Min	-	-	-	-	-	-	-	-	-	-	-	450 Min	-	3 Max	-	-	-
Caprylic Acid 99%	C8 - 99%	Apicid CA-0899	1 Max	99 Min	1 Max	-	-	-	-	-	-	-	-	-	383-390	384-391	0.5 Max	15-17	3.0Y/0.3R	Max 60
Capric Acid 99%	C10 - 99%	Apicid CP-1099	-	1 Max	99 Min	1 Max	-	-	-	-	-	-	-	-	323-330	324-331	0.5 Max	30-32	3.0Y/0.3R	Max 60
Caprylic - Capric Acid Blend	C8-C10	Apicid CA-0856	0.5 Max	53-63	35-45	1.5 Max	-	-	-	-	-	-	-	-	353-367	355-369	0.5 Max	6 Max	3.0Y 0.3R	Max 60
Lauric Acid 70%	C12-70%	Apicid LA-1270	-	-	1 Max	70-77	22-29	2 Max	-	-	-	-	-	-	265-275	266-276	0.5 Max	32-36	2.0Y/0.2R	Max 50
Lauric Acid 99%	C12-99%	Apicid LA-1299	-	-	1 Max	99 Min	1 Max	-	-	-	-	-	-	-	278-282	279-283	0.3 Max	42-44	1.2Y/0.2R	Max 40
Myristic Acid 99%	C14-99%	Apicid MA-1499	-	-	-	1 Max	99 Min	1 Max	-	-	-	-	-	-	243-247	244-248	0.3 Max	52-54	1.2Y 0.2R	Max 40
Palmitic Acid 80%	C16-80%	Apicid PA-1680	C14 & below = 15 max					80 Min	C18 + C18:1 + C18:2 = 20 Max			-	-	-	212-230	213-231	15 Max	55 Min	15Y/1.5R	-
Palmitic Acid 85%	C16 -85%	Apicid PA-1685	-	-	-	-	-	85 Min	-	-	-	-	-	-	212-222	213-225	15 Max	55 Min	15Y/1.5R	-
Palmitic Acid 98%	C16 -98%	Apicid PA-1698	-	-	-	-	2 Max	98 Min	2 Max	-	-	-	-	-	216-220	217-221	0.3 Max	60-63	2.0Y/0.2R	Max 40
Oleic Acid	C18:1 -75%	Apicid OA-1878	-	-	-	-	-	-	-	75 Min	13 Max	-	-	-	196-204	197-205	86 Min	8.5 Max	15Y/2R	Max 225
Stearic Acid 55%	C18-55%	Apicid SA-1855	-	-	-	3 Max		41-47	52-58	-	-	1 Max	-	-	204-210	205-211	0.7 Max	55.5-57.5	3.0Y/0.3R	Max 60
Stearic Acid 65%	C18-65%	Apicid SA-1865	-	-	-	3 Max		30-36	63-68	-	-	1 Max	-	-	200-206	201-207	0.8 Max	58-61	3.0Y/0.3R	Max 60
Stearic Acid 92%	C18-92%	Apicid SA-1892	-	-	-	-	-	8 Max	92 Min	-	-	2 Max	-	-	194-201	195-202	1 Max	66-69	3.0Y/0.5R	Max 100
Triple Pressed Stearic Acid	C18-42%	Apicid TP-1842	-	-	-	3 Max		55-60	39-45	-	-	1 Max	-	-	206-212	207-213	0.5 Max	54-57	2.0Y 0.2R	Max 50
Rubber Grade Stearic Acid		Apicid RGSA	-	-	-	-	-	-	-	-	-	-	-	-	195 Min	196 Min	8 Max	52 Min	20Y/2R	-
Distilled Coconut Fatty Acid	C8-C18	Apicid DC-1248	0.5 Max	4-8	5-10	46-53	15-21	5-13	4 Max	5-12	3 Max	-	-	-	261-275	262-276	7-12	22-26	5.0Y 0.7R	Max 125
Distilled Palm Kernel Fatty Acid	C8-C18	Apicid DK-1250	-	1-4	1-4	46-52	13-18	7-14	1-4	12-19	1-3	0.5 Max	-	-	248-262	249-263	15-20	22-27	5.0Y/0.5R	Max 100
Distilled Palm Stearine Fatty Acid	C16-C18	Apicid DS-1660	-	-	-	4 Max		56-65	4-7	24-33	4-8	0.5 Max	-	-	207-214	208-215	28-39	47-53	3.0Y/0.5R	Max 100

Fatty Acid	Majo FA	Product Grade	Approximate Fatty Acid Composition (%)										Nickel (ppm)	FFA (%)	Specifications					
			C6: Caproic Acid	C8: Caprylic Acid	C10: Capric Acid	C12: Lauric Acid	C14: Myristic Acid	C16: Palmitic Acid	C18: Stearic Acid	C18 1: Oleic Acid	C18 2: Linoleic Acid	Others			Acid Value (mg KOH/g)	Saponi- fication Value (mg KOH/g)	Iodine Value (gI2/ 100g)	Titer (°C)	COLOR Lovibond (Yellow/ Red)	COLOR APHA (Hazen)
Distilled Palm Oil Fatty Acid	C16-C18	Apicid DP-1644	-	-	-	4 Max		40-48	3-9	35-44	7-12	0.5 Max	-	-	204-210	205-211	46-56	42-48	3.0Y/0.5R	Max 100
Distilled PK-1618 Fatty Acid	C16-C18	Apicid PK-1618M	C14 & below = 4 Max				17-25	6-11	55 Min	7-12	2.0 Max	-	-	195-210	196-211	62 Min	38 Max	-	-	-

Product Code	Packaging Format						
	 Drums	 ISO tank	 IBC	 25kg bag	 Jumbo bag	 Flexitank	 Bulk
Caproic Acid 80%	✓	✓	-	-	-	-	-
Caprylic Acid 99%	✓	✓	✓	-	-	-	-
Capric Acid 99%	✓	✓	✓	-	-	-	-
Caprylic - Capric Acid Blend	✓	✓	✓	-	-	-	-
Lauric Acid 70%	-	✓	-	-	-	✓	✓
Lauric Acid 99%	-	✓	-	✓	✓	-	✓
Myristic Acid 99%	-	✓	-	✓	✓	-	✓
Palmitic Acid 80%	-	✓	-	✓	✓	-	✓
Palmitic Acid 85%	-	✓	-	✓	✓	-	✓
Palmitic Acid 98%	-	✓	-	✓	✓	-	✓
Oleic Acid	✓	✓	-	-	-	✓	✓
Stearic Acid 55%	-	✓	-	✓	✓	-	✓
Stearic Acid 65%	-	✓	-	✓	✓	-	✓
Stearic Acid 92%	-	✓	-	✓	✓	-	✓
Triple Pressed Stearic Acid	-	✓	-	✓	✓	-	✓
Rubber Grade Stearic Acid	-	-	-	✓	✓	-	-
Distilled Coconut Fatty Acid	✓	✓	-	-	-	✓	✓
Distilled Palm Kernel Fatty Acid	✓	✓	-	-	-	✓	✓
Distilled Palm Stearine Acid	-	-	-	-	-	-	-
Distilled Palm Oil Fatty Acid	-	-	-	-	-	-	-
Distilled PK-1618 Fatty Acid	✓	✓	-	-	-	-	✓

Refined Glycerine



APICERINE

Refined Glycerine is colorless, odorless and sweet tasting. It is widely used in personal care products, cosmetics, pharmaceutical, surface coating, inks, tobacco products, textiles, lubricants, solvent, emollients, thickening agent, urethane, polymers, soap and sweetener (for food & beverage and confectioneries) among others.

It is also used as an intermediate in the production of epichlorohydrin, anti-freeze, and propylene glycol.



Product Specification	APICID G995 USP Refined Glycerine 99.5% USP	APICID G997 USP Refined Glycerine 99.7% USP	Apicid G995 EP Refined Glycerine 99.5% EP	Apicid G997 EP Refined Glycerine 99.7% EP	Apicid G995 BP Refined Glycerine 99.5% BP	Apicid G997 BP Refined Glycerine 99.7% BP
Glycerine Content (%)	99.5 Min	99.7 Min	99.5 Min	99.7 Min	99.5 Min	99.7 Min
Specific Gravity 25/25°C (-)	1.2607	1.2612	-	-	-	-
Color APHA (Hazen)	10 Max	10 Max	-	-	-	-
Water (%)	0.5 Max	0.3 Max	0.5 Max	0.3 Max	0.5 Max	0.3 Max
Residue on Ignition (%)	0.01 Max	0.01 Max	-	-	-	-
Chlorides (ppm)	10 Max	10 Max	10 Max	10 Max	10 Max	10 Max
Sulfate (ppm)	20 Max	20 Max	-	-	-	-
Chlorinated Compounds (ppm)	30 Max	30 Max	-	-	-	-
Fatty Acid & Esters (ml 0.5N NaOH/50g)	1 Max	1 Max	-	-	-	-
Identification A - Infrared Spectroscopy	Passed	Passed	-	-	-	-
Identification B - Limit of DEG & EG	Passed	Passed	-	-	-	-
Identification C - Chromatography	Passed	Passed	-	-	-	-
Individual Impurities (%)	0.1 Max	0.1 Max	-	-	-	-
Total Impurities (%)	1.0 Max	1.0 Max	-	-	-	-
Identification (-)	-	-	Passed	Passed	Passed	Passed
Appearance of Solution (-)	-	-	Colourless	Colourless	Colourless	Colourless
Acidity or Alkalinity (ml 0.1M NaOH)	-	-	0.2 Max	0.2 Max	0.2 Max	0.2 Max
Refractive Index (-)	-	-	1.470-1.475	1.470-1.475	1.470-1.475	1.470-1.475
Aldehydes (ppm)	-	-	10 Max	10 Max	10 Max	10 Max
Esters (ml 0.1 M HCl)	-	-	8.0 Min	8.0 Min	8.0 Min	8.0 Min
Impurities A and Related Substances (-)	-	-	Passed	Passed	Passed	Passed
Halogenated Compounds (ppm)	-	-	35 Max	35 Max	35 Max	35 Max
Sugars (-)	-	-	Passed	Passed	Passed	Passed
Heavy Metals (ppm)	-	-	5 Max	5 Max	5 Max	5 Max
Sulfated Ash (%)	-	-	0.01 Max	0.01 Max	0.01 Max	0.01 Max

Product Code	Packaging Format				
	 Drums	 IBCs	 Flexitank	 ISO tank	 Bulk
APICID G995 USP	✓	✓	✓	✓	✓
APICID G997 USP	✓	✓	✓	✓	✓
Apicid G995 EP	✓	✓	✓	✓	✓
Apicid G997 EP	✓	✓	✓	✓	✓
Apicid G995 BP	✓	✓	✓	✓	✓
Apicid G997 BP	✓	✓	✓	✓	✓



Soap Noodles



APISALT

Soap Noodles are the fatty acids derived either from vegetable oil or animal fats. It is produced from the saponification of neutral fats and oil, neutralisation of fatty acid and saponification of methyl esters. Soap Noodles are used as the main ingredient in soap bars, cosmetic, laundry soap, industrial soap and other specialty applications.

APISALT, Apical's soap noodles is vegetable based and derived from palm. Our product range includes the following and the selection depends on a customer's formulation and products.

VEGETABLE OPAQUE SOAP BASE

- 8020S / 8021S
- 7525S / 7030S

Standard vegetable soap with various oil composition, comprising of a blend of palm and palm kernel. The whiteness and high colour stability ranks this soap base.

NATURAL SOAP BASE

EDTA free soap that is often used as the new green soap base for cosmetics and toiletries product.

LUXURY SOAP BASE

Soap base with high lauric content that promotes high and dense lathering compared to standard soap.

CUSTOMISED SOAP BASE

Commercial and customised formula can be developed depending on preferred application properties.



Sustainability, the heart of our business



Apical2030

Apical2030 is our strategic sustainability initiative that maps the future direction for the Group.

Anchored to meaningful social and environmental impacts, Apical2030 focuses on four strategic pillars namely Transformative Partnerships, Climate Action, Green Innovation and Inclusive Progress.



5Cs Business Philosophy

Sustainability is our way of thinking, being and running our business. We are guided by our 5Cs business philosophy of doing what is good for the community, country, climate, customer and only then, will it be good for the company.

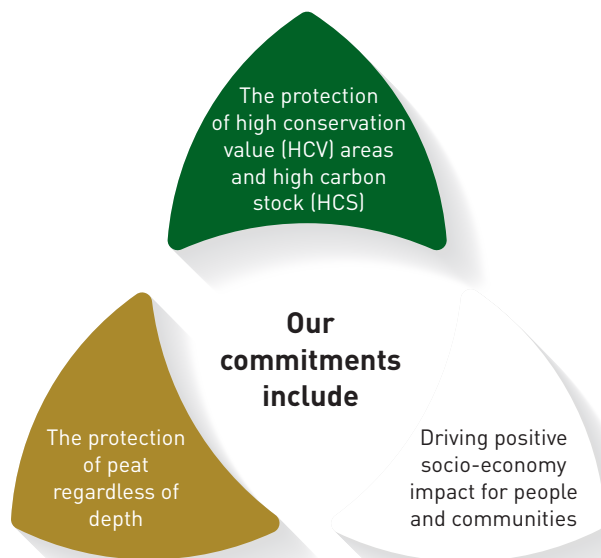




Apical Sustainability Policy

Our Sustainability Policy outlines our commitment to ensuring sustainable practices are adopted across the entire value chain of our palm oil production, from cultivation to processing and delivery to end users.

We work to ensure that our suppliers comply with our sustainability commitments, local laws and regulations. We will source our supply only through networks that are transparent and traceable.



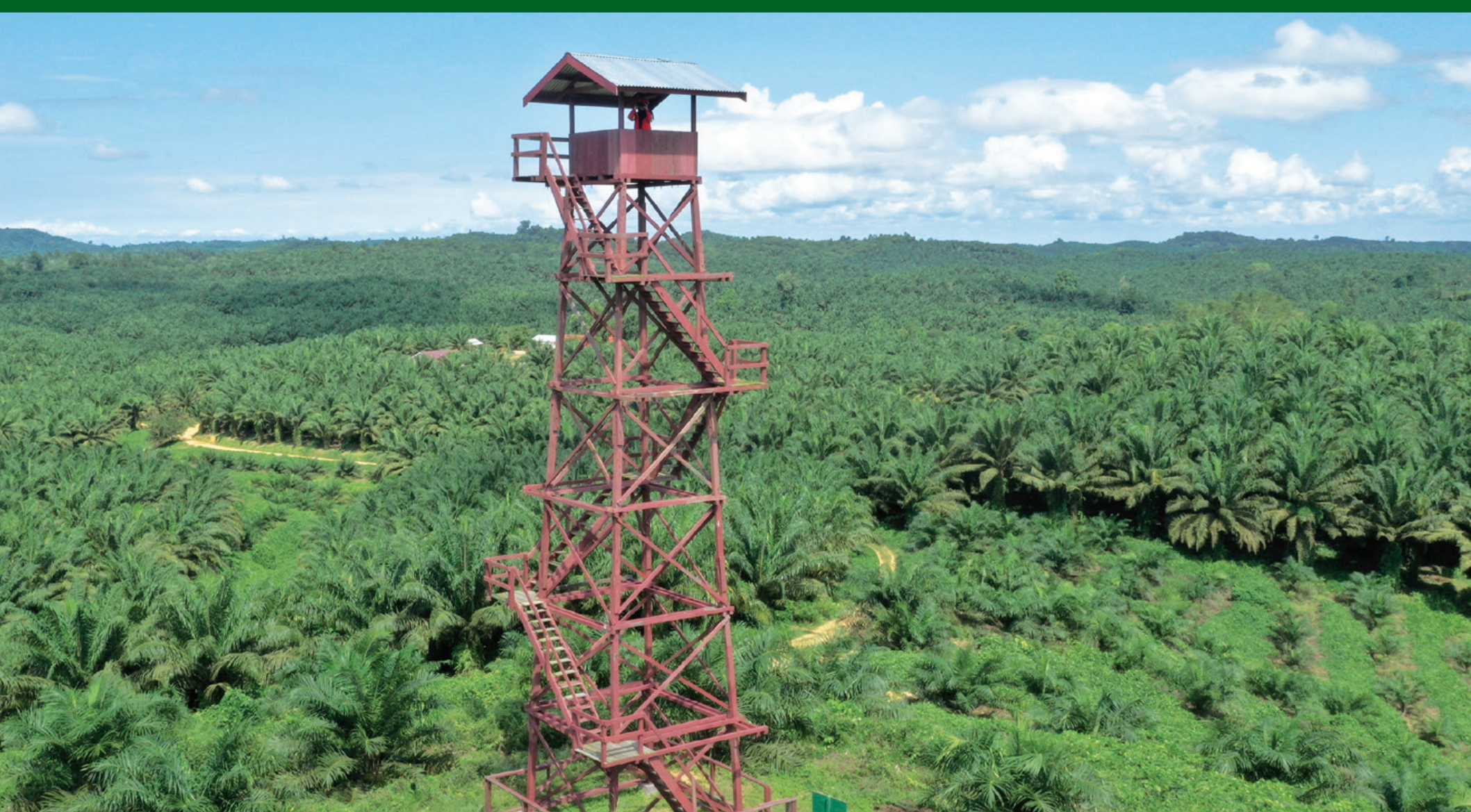
A-SIMPLE Framework

Apical Sustainability Implementation (A-SIMPLE) Framework is our mechanism to ensure the effective implementation of our Sustainability Policy.

A-SIMPLE Framework includes the following components:



View our **Sustainability Progress Dashboard** on Apical's website for more information on the progress of our Sustainability Policy, our anchor programmes, and our sustainability transformation journey.



Partner with Apical to explore the many palm-derived oleochemicals for everyday products. Contact us at salesoleo@apicalgroup.com

Our Locations

OLEOCHEMICAL PLANTS

PT Apical Kao Chemicals

Q946+CRV, Jl. Raya Lubuk Gaung
Sungai Sembilan
Kota Dumai, Riau, 28826
Indonesia

PT Kutai Refinery Nusantara

Jl. Teluk Waru RT. 09, Kel. Kariangau
Kec. Balikpapan Barat - Kota
Balikpapan
Kalimantan Timur
Indonesia

PT Sari Dumai Oleo (Dumai)

Jl. PU Lama
Kel. Lubuk Gaung
Kec. Sungai Sembilan
Kota Dumai 28826
Indonesia

PT Sari Dumai Oleo (Marunda)

Jl. Fak-Fak Blok A No. 47
KBN Marunda, Cilincing, Jakarta Utara
DKI Jakarta 14150
Indonesia

PT Sari Dumai Sejati

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Desa Kapuas Batu VIII, Pulau Buaya
Tanjung Balai, Sumatera Utara
Indonesia

PT Padang Raya Cakrawala

Jl. Tanjung Priuk No. 30, Teluk Bayur
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