

# Oil Palm: Fractions & Derivatives



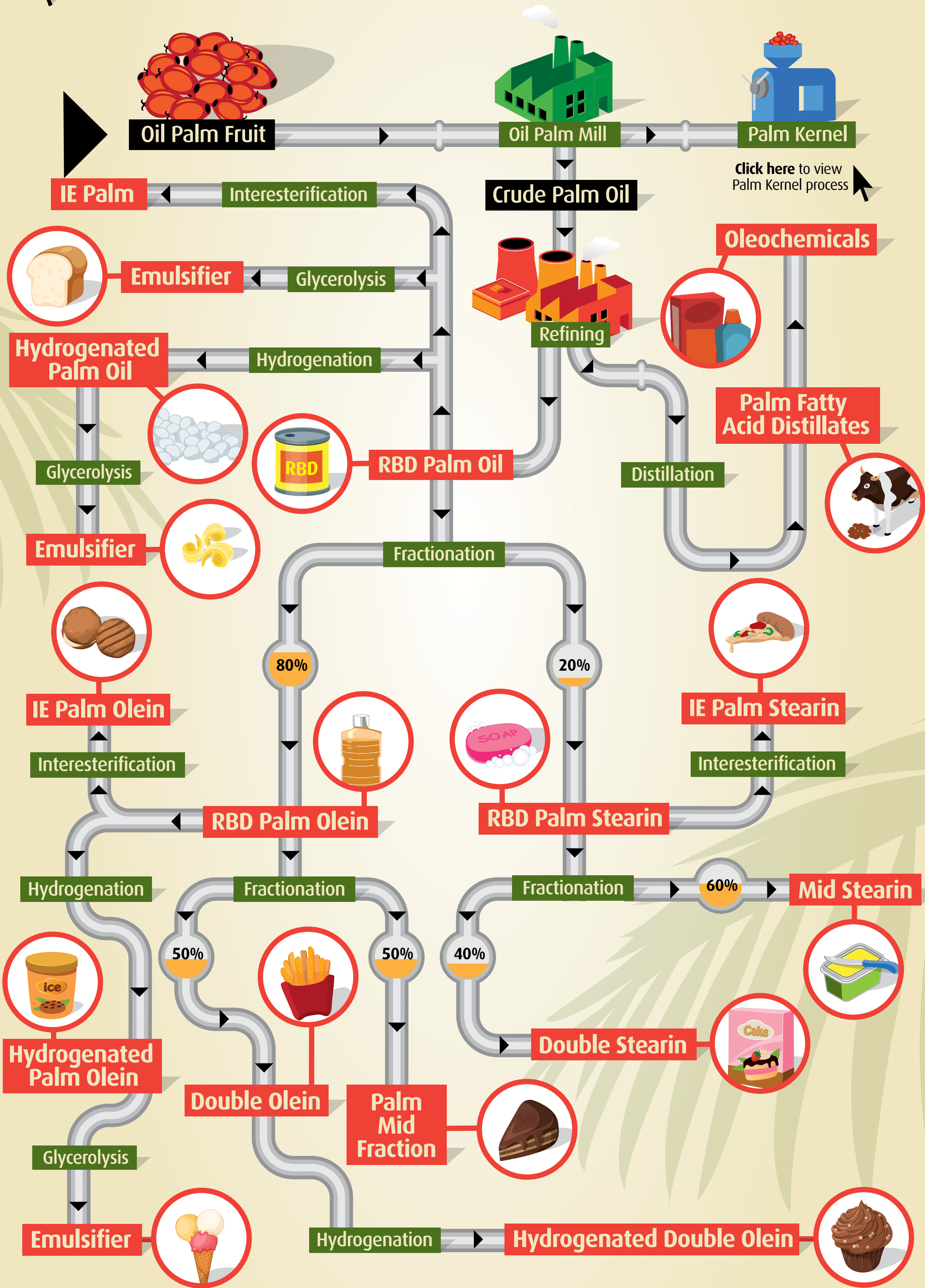
## Palm Oil process

Click on a process or product for additional information.

Key:

Process

Product



# Oil Palm: Fractions & Derivatives



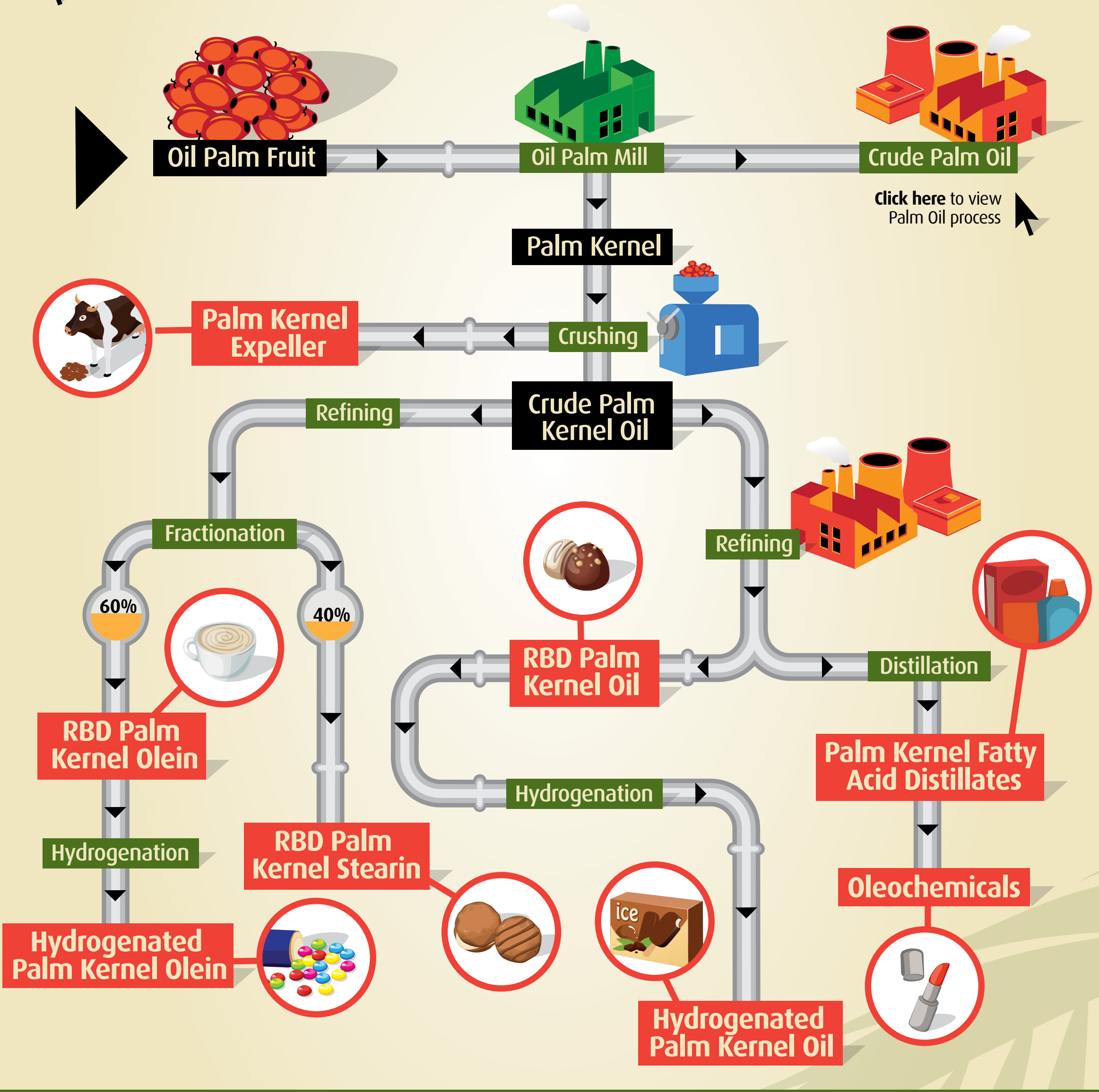
## Palm Kernel Oil process

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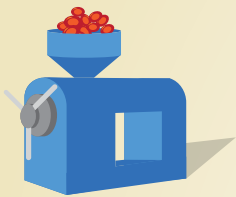


# Processes



## Mill Process

Fresh Fruit Bunches (FFBs) are sterilized and stripped. The fruit is pressed to separate the oil from the 'cake' (a mixture of kernel and fibre). The oil is then purified and clarified.

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## Crushing

The kernel is cracked to remove the palm kernel shell (Palm Kernel Expeller or PKE) and the kernel is crushed and pressed to produce Palm Kernel Oil or PKO.

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## Refining (RBD: Refined, Bleached & Deodorised)

Oil is refined to remove colour, odour and flavour.

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## Fractionation

Liquid Palm Olein and solid Palm Stearin are separated. This is achieved by using crystallisation techniques followed by a membrane filter process.

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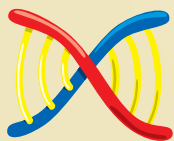
## Interesterification (IE)

Oils are reformulated to produce different properties. Carbon chains are separated from the glycerine anchor and reattached in a different formation to create oils with improved properties for specific uses in the food industry.

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## Hydrogenation

A means of increasing the melting point of oils using Hydrogen gas.

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## Glycerolysis

The process of creating emulsifiers by adding glycerine. Emulsifiers facilitate the mixture of oil and water.

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## Distillation


A method of separating mixtures based on differences in volatility of components in a liquid mixture.

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# Products



## RBD Palm Oil

Melting point: 35°C 


Properties: balanced fatty acid composition

Uses: bakery fats, biscuit fat, foodservice frying oils

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## RBD Palm Olein

Melting point: 20°C 


Properties: liquid at room temperature

Uses: snack food manufacture, cooking oils

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## RBD Palm Stearin:

Melting point:: 48°C 


Properties: solid at room temperature

Uses: pastry fats, margarines, soap manufacture

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## Double Olein (or Super Olein)

Melting point: 10°C 


Properties: liquid frying oil, a good replacement for hydrogenated fat, good resistance to oxidation

Uses: foodservice frying oils

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## Palm Mid Fraction

Melting point: 25-30°C 


Properties: solid at low temperature but melts quickly

Uses: ganache type confectionery fillings, biscuit fillings, frying oil

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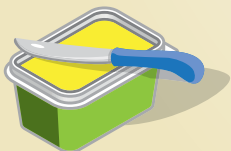
## Double Stearin

Melting point: 60-62°C 


Properties: very hard, easy to flake or powder

Uses: soup dry mixes, cake dry mixes

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## Mid Stearin

Melting point: 30°C 

Properties: mid range melting point

Uses: hard Stock for margarine

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## Palm Kernel Expeller (PKE)

Properties: good source of fibre and minerals including phosphorous, copper, zinc and manganese

Uses: animal feed

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# Products



## RBD Palm Kernel Oil

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**Melting point:** 26-28°C 


**Properties:** highly saturated fat, semi-solid at room temperature, good melting properties, good lathering properties

**Uses:** confectionery, ice cream, soap formulas



## RBD Palm Kernel Olein

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**Melting point:** 22-25°C 


**Properties:** low melting point, generally hydrogenated

**Uses:** coffee whiteners



## RBD Palm Kernel Stearin

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**Melting point:** 32-33°C 

**Properties:** low melting point, good oxidative stability

**Uses:** confectionery, biscuit cream, ice cream, chocolate coatings



## Palm Fatty Acid Distillate (PFAD)

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**Uses:** animal feed, detergents



## Palm Kernel Fatty Acid Distillates (PKFAD)

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**Uses:** animal feed, detergents



## Oleochemicals:

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**Properties:** a replacement for petrochemicals

**Uses:** detergent, biofuel



## Hydrogenated Palm Kernel Oil (HPKO)

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**Melting point:** 36°C 

**Properties:** high in saturates, rapid melt down for good flavour release

**Uses:** ice cream, confectionery, chocolate coatings, soap, cosmetics, biofuel



## Emulsifier

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**Properties:** facilitates the mixture of oil and water, significantly improving the texture of many foods. Also helps to maintain quality and freshness, preventing the growth of mould which would happen if the oil and fat separate.


**Uses:** margarine, low fat spread, biscuits, cakes, ice cream, bread, etc.

# Products



## Hydrogenated Palm Olein

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Melting Point: 42°C 


Properties: good melting properties

Uses: dairy fat alternatives



## Hydrogenated Double Olein

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Melting Point: 36°C 


Properties: good melting properties

Uses: confectionery fillings



## Hydrogenated Palm Oil

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Melting Point: 42°C-65°C 


Properties: high melting point

Uses: distilled emulsifier manufacture, flaked and powdered Fats



## Hydrogenated Palm Kernel Olein

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Melting Point: 41°C 


Properties: High Stability, able to powder

Uses: confectionery coatings, coffee creamers and whiteners



## IE Palm

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Melting Point: 42°C 


Properties: improved crystallisation

Uses: dry mixes



## IE Palm Olein

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Melting Point: 38°C 


Properties: improved crystallisation

Uses: confectionery, biscuit filling fats



## IE Palm Stearin

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Melting Point: 50°C 

Properties: flaked fats

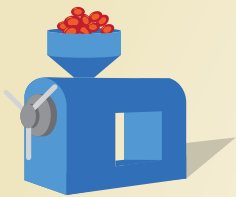
Uses: pizza dough

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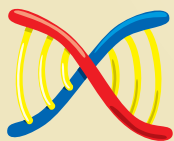
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