



PALM-BASED TOCOTRIENOLS



Tocotrienols can naturally inhibit estrogen, a hormone that stimulates division of breast cancer. Early clinical trials have shown positive results in preventing and treating breast cancer.





MARGARINE WITH REDUCED SATURATED FATTY ACIDS, TEXTURE WITH PALM-OIL BASED STRUCTURAL FAT

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Margarine with reduced saturated fatty acid with palm oil-based structural fat



This margarine blend engages the exclusive use of palm oil-based structural fat which has superior structuring ability

ADVANTAGES

- Reduced saturated fatty acids levels below commercial retail margarines
- Trans fatty acid free trans fat
- Plant based
- Cholesterol free
- Suitable for vegetarians

Margarine with less than **20%** saturated fatty acids



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PALM-BASED SPREADABLE CREAM CHEESE

NUR HAQIM ISMAIL

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Cream cheese containing
palm fractions as
alternative fat



ADVANTAGES

- Cost effective
- Reduced processing time
- Equal performance and sensory properties to cream cheese containing milk fat
- Utilization of palm oil for higher value added products
- Tailor made flavour to suit the preference of the customer





MICROENCAPSULATED (POWDERED) TOCOTRIENOL-RICH-FRACTION (TRF)

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Tocotrienol-Rich Fraction
(TRF) with improved
microencapsulation
efficiency



ADVANTAGES

- Good microencapsulation efficiency
- Excellent free radical scavenging activity
- Vitamin E content of 50-90mg/g could be easily encapsulated
- Convenient



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BENEFITS OF PALM-BASED MARGARINE



- 1 Free from trans-fatty acids
- 2 Able to stay semi-solid even at room temperature
- 3 Good margarine texture
- 4 Cholesterol free
- 5 100 % Vegetable oil based
- 6 Suitable for vegan and vegetarian





INSTANT PALM-BASED POWDER BY SPRAY DRYING AND FLUIDIZED BED-DRYING TECHNIQUES

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Palm-based Powder
from Spray Drying



Palm-based powder
from Fluid Bed Drying



Spray Drying Powder



Spray Drying + Fluid
Bed Drying Powder

ADVANTAGES

- Better properties and quality
- Cholesterol-free products
- Contain vitamin E
- Low transportation
- Cost affective
- Longer shelf life
- Convenient to be use

PRODUCT



Improved
santan sawit
powder



Palm based
powder for
beverages



Palm based
dry soup-mix
powder

TECHNIQUE ADVANTAGES

- Less sticky
- Good reconstitution properties
- Higher and desirable wettability with higher porosity
- Good solubility
- Good flowability





PALM-BASED LASSI

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ADVANTAGES



Excellent taste



No cholestrol



Cost Effective



Reduce processing time



Utilisation of palm oil for higher value added products





HIGH GRADE OIL PALM-BASED SODIUM CARBOXYMETHYL CELLULOSE (CMC) FOR FOOD ADDITIVES

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Technology for production of high grade oil palm based sodium carboxymethyl cellulose (CMC) for food additives

Food grade CMC is produced from cellulose extracted from palm oil empty fruit bunches (EFB)



ADVANTAGES

- Good thickening property
- High water retention
- Rapid dispersibility
- Good rheological and stable characteristics
- High viscosity even in low concentration and at low temperature

CMC IS USED AS:

- Thickener
- Binder
- Stabiliser
- Suspending aid
- Flow controlling agent

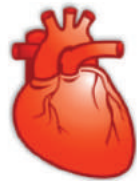


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The Health Benefits of **RED PALM OIL**



Reduces
Cholesterol
Levels



Slows The
Progression of
Heart Disease



Boost
Brain
Health



Rich With
Pro-Vitamin A



Reduces
Oxidative
Stress



Improves
Skin And
Hair Health

