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Introduction

Malaysia is producing about 39% world palm oil production with nearly 15.4 million tons annually. The palm oil is not only rich with carotenoids, it also one of vitamin E source, helpful for prevention of oxidative deterioration. Currently, many down-stream products from this oil has been study including production of foods & beverages, cosmetics, healthcare and biodiesel. As another alternative to increase palm oil added value, the utilization of the oil in culinary field is presented in this work. The palm oil is formulated as cooking aerosol specifically for light cooking, baking, barbeque and grill. The light cooking and baking formulation is applied to culinary utensils as anti-sticking agent and minimization for usage of fats. The barbeque and grill are two seasoning aerosol for foods in order to enhance flavors and presentation of the dishes. The product is foreseen to be applied in home kitchen, picnic & outdoor and hotels as a clean and helpful culinary assistance.

Motivation

Global Vegetable Oil Market

208.6 M

metric tons by 2020

Global Industry Analysts, Inc. (2016)

Market Value

USD190 B

by 2020 *Mordor Intelligence (2016)*



	HIGH OLEIC SOYBEAN OIL	CANOLA OIL	PALM OIL	SUNFLOWER OIL
Available Acreage	U.S.: 6,000,000 by 2023*	U.S.: 736,000 Canada: 19,500,000	U.S.: 0 Worldwide: 94,000,000	U.S.: 1619,000
Taste Profile	Neutral flavor profile	Neutral to greasy	Nearly tasteless after processing	Mild and pleasant flavor
Stability (OSI**)	Highest OSI	Medium OSI	High OSI	Medium OSI
Market/Uses	Baked goods, frying	Bottle cooking oil, dressings, frying	Prepackaged baked goods	Snack foods
Oil Price for Customers	Average	Average	Most economical oil	Considerably more expensive



Methodology



Palm Oil

Inventive Step



Formulation of food grade Palm-O-Lite



Bottling

Normal Practice



With Palm-O-Lite



Potential Applications



Outdoor Grilling



Food Aid Preparation



Bakery



Food Truck Vendor



F&B Dressing

Analysis

Nutritional Information		
Serving Size: 100g		
	Per Pack (100g)	Per serving (0.05g)
Energy (kcal)	881	0.44
Carbohydrate (g)	1.9	0.00095 (0)
Protein (g)	0.5	0.00025 (0)
Fat (g)	96.9	0.048 (0)

Benefit / Advantages

- Continuous supply of raw material
- Fat intake control
- Easy to use
- Malaysian Sustainable Palm Oil (MSPO)

Patent

Patent Submitted for Evaluation
 Title - Palm-O-Lite: Palm Oil Based Aerosol for Culinary Applications

Award

Gold Medal, Creation, Innovation, Technology & Research Exposition (CITREx 2018), Universiti Malaysia Pahang

