



*Spend Less, Drive More*

# Whitepaper

A Palm Oil-Based Fuel Additive for Enhanced Combustion, Emission Reduction, and Fuel Economy

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## Executive Summary

JimatFuel is an environmentally friendly fuel additive derived primarily from palm oil. Developed by: the late Dr. Wong Khai Ming, the product is designed to improve combustion efficiency, increase engine power, reduce fuel consumption, and lower harmful emissions. It is suitable for both petrol and diesel engines that uses Internal Combustion Engine (ICE).

Independent laboratory tests and field trials indicate measurable reductions in fuel usage (e.g., 14.81% in a marine test) and confirm the absence of heavy metals such as lead, mercury, arsenic, and cadmium.



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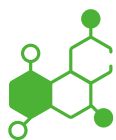
## Product Overview

Attribute	Description
Product Name	JimatFuel
Also Known As	Fuel Additive
Base Ingredient	Palm oil (90% original palm oil substances)
Applications	Petrol (carburettor & fuel injection), diesel engines, marine vessels
Key Function	Breaks down fuel molecules and hydrogen bonds to enable more complete combustion (up to 98% efficiency)
Safety Features	Non-inflammable, contains no solvents, kerosene, or diesel fuel; no heavy metals detected

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## Technical Function & Mechanism

Conventional fuel combustion typically utilizes only 70–75% of fuel, with the remainder released as soot, smoke, or unburned hydrocarbons. When **JimatFuel** is added at the recommended ratio:



It breaks fuel molecules into smaller particles



Increases surface area exposure to oxygen



Enables more complete combustion (up to 98% efficiency)

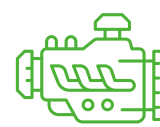
Results include:



Higher energy output per unit of fuel



Reduced exhaust emissions



Cleaner engine components (injectors, spark plugs, fuel pumps)

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## Laboratory Analysis (Certified)

**Source:** Consolidated Laboratory Services Sdn. Bhd. (now part of SGS Malaysia), Lab Report No. CL/M46373/98

Test Parameter	Result
Lead (Pb)	Not detected
Mercury (Hg)	Not detected
Arsenic (As)	Not detected
Cadmium (Cd)	Not detected
pH (diluted 1:500 with unleaded petrol)	5.8

### Fatty Acid Composition (selected):

Component	Percentage (%)
Palmitic (C16:0)	38.93
Oleic (C18:1)	44.71
Linoleic (C18:2)	9.79
Stearic (C18:0)	4.00

*Note: Composition is consistent with vegetable oil/fat profiles.*

Source: SGS Malaysia Analytical Report No. PK25-00462.001

Date: 14/11/2025

<b>Location:</b>	Client Location	<b>Product Description</b>	Fuel Additives - Energy Bio Booster
<b>Sample Source</b>	As Supplied	<b>Sample By</b>	Client
<b>Sample Type</b>	As Submitted	<b>Received</b>	10/11/2025
<b>Sampled</b>	--	<b>Completed</b>	14/11/2025
<b>Analysed</b>	12/11/2025 - 14/11/2025		

Property	Method	Result Units
Flash Point	ASTM D3828 - (Method B)-16a(2021)	198.0 °C
Total Sulfur Content*	ASTM D4294-21	<20 mg/kg
Water Content	ASTM D6304 (Procedure A)-20	0.022 % (m/m)

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## Field Test Results – Marine Vessel

Vessel: Pulau Rawa (RO-RO/Passenger ship)

Fuel Capacity: 14,250 liters

Test Duration: 5 round trips before and after additive use

Condition	Average Load (kg/trip)	Fuel Consumption (liters)
Without Additive	327,985	3,188
With JimatFuel (17kg)	317,561	2,716

### Conclusion:

Fuel consumption reduced by **14.81%** despite comparable load weights.



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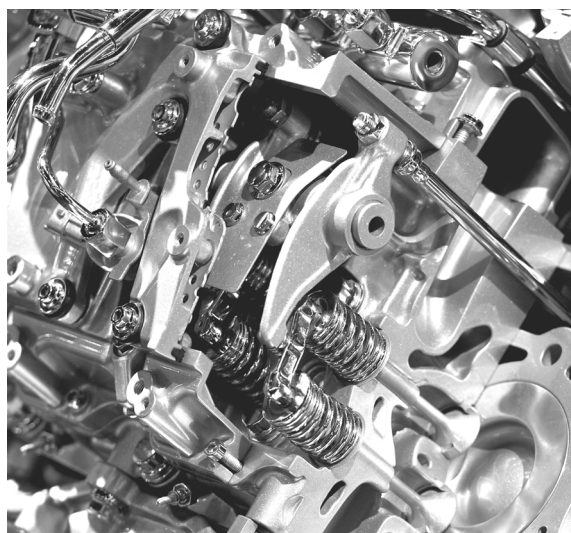
## Claimed Benefits by Engine Type

### For Petrol (Carburetor & Fuel Injection):

- Improved fuel economy through more efficient combustion
- Increased engine power (lab reference: 100 km/h → 120 km/h equivalent performance)
- Cleans injectors, spark plugs, and carburetors
- Extends engine lifespan
- Reduces engine temperature and noise
- Easier cold starting
- Environmentally friendly
- Non-inflammable

### For Diesel Engines (Additional Benefits):

- Reduces black smoke emissions
- Lowers CO, HC, hydrogen sulfate, and NOx emissions
- Cleans fuel pump and delivery system



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## Usage Directions

JimatFuel is safe for All Petrol and Diesel Engine and or All Internal Combustion Engine (ICE).

**Initial Treatment:** Add 2 tablets directly into the fuel tank before refueling during first use to help clean and condition the fuel system

**Maintenance Dose:** Before refueling, add 1 tablets (5g) per 50 litres of fuel

**Note:** For Marine Vessel, we suggest to use JimatFuel Liquid type which are more appropriate for vessel's bunker.

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## Awards & Recognition

Year	Award / Recognition
1997	Bronze Medal – MINDEX/INNOTEX (Fuel Additive Energy Oil)
1998	Gold Medal – 26th International Exhibition of Inventions, Geneva
1998	Malaysia Book of Records (First Palm Oil-Based Fuel Additive)
1998	Gold Medal – Malaysia New Invention (Ministry of Science)
1998/99	Chivas Regal – Malaysia Achievement Unlimited Award
1999	Silver Medal – 27th International Exhibition of Inventions, Geneva Certificate of Acknowledgment – Ministry of Science, Technology & Environment (Malaysia)

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## Safety & Environmental Profile

- Heavy Metals: None detected
- Flammability: Non-inflammable (90% palm oil)
- Solvents/Kerosene/Diesel: None
- Biodegradability: Palm oil-based and environmentally friendly
- Engine Safety: Tested for all engine types; no adverse effects reported

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## Supports

The manufacturer supported by SIRIM Test Report No. MA970121, which demonstrated:

- CO reduction: 27.2%
- Hydrocarbon reduction: 15.1%
- Simultaneous increase in horsepower and fuel efficiency

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## Conclusion

**JimatFuel** is a scientifically formulated, award-winning, palm oil-based fuel additive that demonstrates measurable improvements in combustion efficiency, fuel economy, and emission reduction. Independent laboratory tests confirm the absence of toxic heavy metals, while field trials (such as the 14.81% fuel savings in marine applications) support its effectiveness.

It provides a practical and environmentally responsible solution for both petrol and diesel engines without requiring modifications to existing fuel systems.



*Distributed by: Future X Asia PLT*