

# Products & Marketing view

## Adicon Co. Ltd.

*Market Development team*



Enzymatic fuel additive  
Combustion assist



Kerosene additive  
for secondary Diesel



**Gas-Adicon**



## Company Profile

Company	Adicon Co., Ltd.
Business segment	-Manufacturing and sales of fuel additives (Diesel /Light Oil, Gasoline, Kerosene, Heavy oil) -Sales of Diesel, Gasoline, Kerosene, Heavy oil, lubricating oil -Management consulting
Founded	July 30, 1986
Corporate Headquarters	Sanho Bldg. 4F, 1-1-28 Sakuragawa, Naniwa-ku, Osaka, Japan 81-06-6561-5850
President	Kinuko Gomi
Capital	10,000,000 yen

### Main suppliers

Chukyo Kasei Kogyo Co., Ltd.	Meiwa Kinzoku Kogyo Co., Ltd.
Mikuni Kinzoku Corporation	Sanwa yuko Co., Ltd.
Tsuchiya Kaorin Kogyo Co., Ltd.	Nisso Shoji Co., Ltd.
Asahi Container Co., Ltd.	

### Main clients

Chukyo Kasei Kogyo Co., Ltd.	Rekisei Shoji Co., Ltd.
Futami Co. Ltd.	New Japan Machinery Corporation
Yamato Kogyo Co., Ltd.	Sojitz Energy Corporation
YKK Corporation	Tokiwa Shoji Co., Ltd.
Nikko Sangyo Co., Ltd.	Iwate Isuzu Motor Co., Ltd.
Mie Isuzu Motor Co., Ltd.	etc.



**Gas-Adicon**



### Main product adoption

#### *Public Construction Industry*

Asunaro Aoki Construction Co., Ltd.[designate]  
 Sato Kogyo Co., Ltd. Shimizu Corporation Taisei Corporation  
 Obayashi Corporation Tobishima Corporation Kumagai Gumi Co., Ltd.  
 Daishou Corporation Maeda Corporation Sankyu Inc.  
 Okumura Corporation The Nippon Road Co., Ltd. Kajima Corporation  
 Tokyu Construction Co., Ltd. Penta-Ocean Construction Co., Ltd.  
 Sumitomo Mitsui Construction Co., Ltd. etc.

#### *Factory Premises Work*

Nippon Steel Corporation YKK Corporation  
 Sumitomo Metal Industries, Ltd. Aichi Steel Corporation  
 JFE Steel Corporation Kobe Steel Ltd.  
 Nakayama Steel Works Ltd. etc.

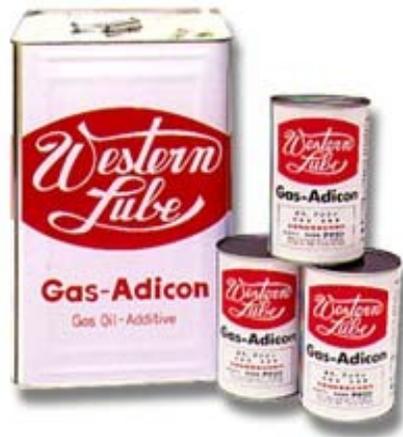
#### *Others*

Japan Fisheries cooperative organizations  
 Japan Agricultural Cooperatives organizations

## Main Products of Adicon

### *ONLY ONE Technology Products*

Kerosene additive  
for secondary Diesel



This product will add viscosity to Kerosene (lamp / heating oil) to be able to use for Diesel engine.

The markets are the countries have large price gap on Kerosene and Diesel.

We are proud of non claim for more than 40 years, and the product has been adopted by major corporations in Japan.

Enzymatic fuel additive  
Combustion assist



This product leads to perfect combustion of fuel, which brings multiple benefits...

- improving fuel efficiency to reduce fuel cost
- improving exhaust quality to reduce pollution
- reducing carbon contamination in systems

This product is produced dissolving special Enzymes into Kerosene, which is a very unique product and does not create collateral air pollution as others.

# Markets and application of Gas-Adicon

## Main feature

Adding viscosity to Kerosene to be able to used for Diesel engine application.

## Market

The country has price gap on Kerosene and Diesel.

## Examples of business

### 1) Tax saving

In Japan, Kerosene is 32.10 yen more expensive than Diesel. The price difference is Road tax, which is grounded to tax on vehicles with license plate. The tax is not supposed to effected on any Diesel applications but vehicles with license plate to drive on public road.

But unfortunately, Diesel is automatically taxed at the delivery of Diesel from Oil process companies to wholesaler, and it is very difficult to claim the tax return for non tax applications due to the current taxing system.

This product is sold to the application like vehicles in factory premises, heavy construction equipments, boats and agricultural equipments.

### 2) Secondary fuel of Diesel

It's depending on the countries, there are no such taxation and regulation, and Diesel is simply more expensive than Kerosene.

## How to use

Normally, the product is simply added into the fuel tank, the amount of 1/200. 1 litter of Gas-Adicon to 200 litter of Kerosene.

Kerosene additive  
for secondary Diesel



# Markets and application of PEAM

## Main feature

This product leads to perfect combustion of fuel.

- Sludge control in the fuel
- Removing and preventing unburnt-carbon & soot
- Accelerating combustion

## What would be the factors of imperfect combustion?

### Physical factors

- Sludge in the fuel
- Contamination of system by Unburnt-carbon & Soot

### Mechanical & technical factors

- Timing of ignition, etc.
- Air amount adjustment

## Fuel process quality and Sludge problem

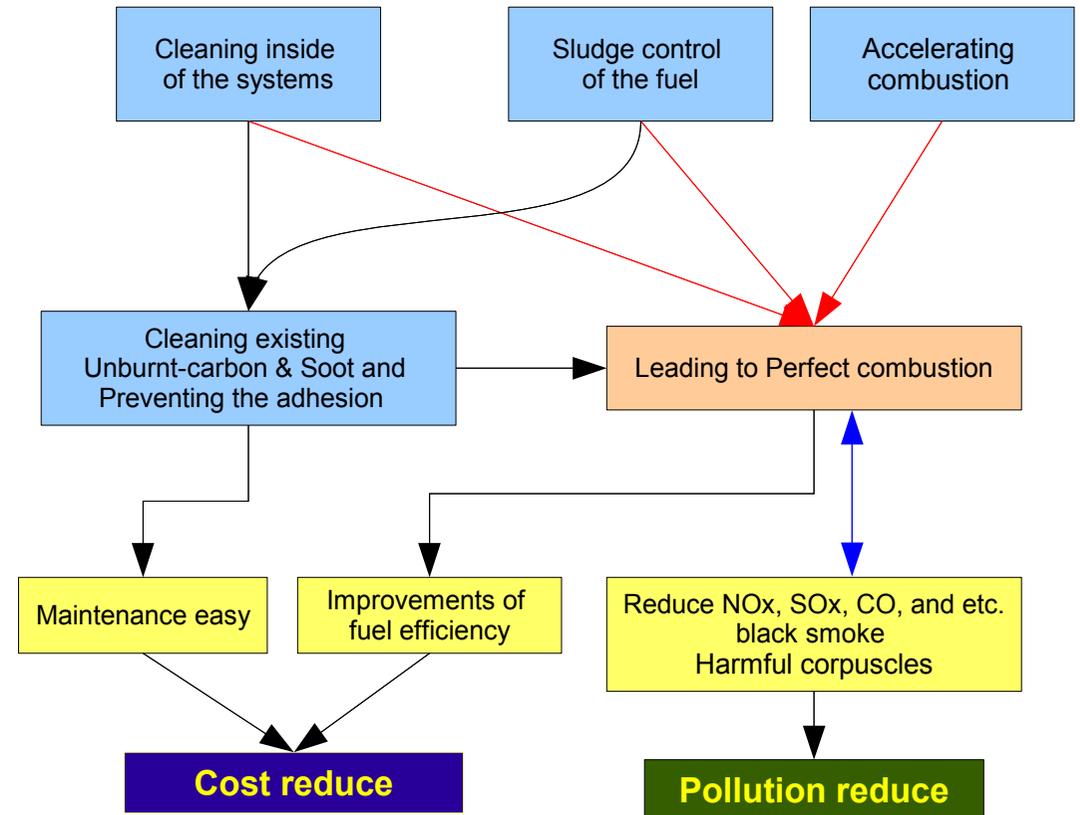
- Contain of the sludge in the fuel is depending on the process technology by country
- Heavy oil contains the most sludge

## Why the size of the product effects are different?

The product has accelerating combustion effect, but the adding amount is 1/10000 of the oil, therefore physically the impact of such effect can not be expected as a solo effect.

The size of the product effects will be different depending on the amount of contain sludge in the fuel and existing unburnt -carbon & Soot contamination in the systems.

The total effect will be multiple result of Sludge control in the fuel, Removing and preventing unburnt-carbon & soot and Accelerating combustion.



# Markets and application of PEAM - 2

## How to use

Normally, the product is simply added into the fuel tank, the amount of 1/10000. 1 litter of PEAM to 10000 litter of any kind of fuel.

## Markets

- **Vessel** (please see below “Fuel process quality and sludge”)
- Vehicle
- Diesel engine
- Boiler
- Agriculture
- Heavy duty equipment
- Incinerator
- Thermal

## Vessel

Vessel uses Heavy oil, which contains more sludge in general. Especially for the vessels, requires refueling at different ports at different country, are commonly facing problems with sludge control. Also, the larger sludge content creates more contamination in the system. Today, many ports requires vessels certain exhaust control for authorization of docking.

## Vehicles

The size of effect is depending on the sludge amount in the fuel and contamination in the systems. For example, one of our client confirmed average of 10-15% improving the gas millage on taxis in Phillipine. The exhaust improvements can be confirmed quite easily, which also proving the improvements on combustion. Private car, Trucks and Buses are also same principal.

## Fuel process quality and Sludge

- Contain of the sludge in the fuel is depending on the process technology by country
- Heavy oil contains the most sludge

## Diesel Engine

The effects were confirmed in Europe approx 20 years ago, and now China Railway is on testing and confirmed good results in mid report.

## Boiler, Incinerator and Thermal

Generally, heavy oil and coal are used on these applications. The effect impacts are very much expected on fuel saving and exhaust control. PEAM will make coating layer inside of chamber to bring the effects and does not require frequent injection by every hour like others, which needs extra investments for the special injection system.

## Heavy duty equipments and Agriculture

PEAM is used for construction industry and agriculture facilities for fuel saving purpose. Especially, agriculture facility concerns common fuel smell on the crops.

## Retail marketing

Some of clients diluted PEAM with 10 times of Kerosene and bottled in own label for marketing, on pricing and volume presentation.

Some of house heating oil wholesalers in Japan mixes PEAM into their tank and sells as special treated heating oil with less fuel smell.



# The active materials of PEAM

PEAM was developed by Biochemical technology in Japan,  
Ferment microbe in especially composed kerosene based culture solution.

The active materials of PEAM are produced by symbiotically cultured 2 different characters of microbes in our especially composed kerosene based culture solution.

## 1) Group of enzymes

(Sludge dispersion effect)

Disperse the sludge preventing the sludge particle forming to grow the size

- Dispersing sludge gradually
- Reducing Soot and Carbon slag
- Controlling corrosion of parts and equipments
- Preventing black smoke
- Reducing harmful factors SO<sub>x</sub>, NO<sub>x</sub>, CO and etc.
- Cleaning (Oil tank)

## 2) Esters

(Combustion accelerating effect)

After culturing, we specially process intramolecular-esterification. Those Esters are stable, but when combusting petroleum, Esters will be dissolved and produce peroxide material, which accelerate combustion.

- Accelerating combustion
- Accelerating complete combustion

## 3) 4-Acetylcyclohexane

(Removing sludge, carbon and soot effect)

This material is a newly found material through our technology of culturing, which removes sludge & unburnt hydrocarbon and reducing soot as the main purpose of the product.

- Improving fuel efficiency and saving fuel
- Improving anti-knocking
- Prevent producing hard slug at high temp. area

### Contact info

## Adicon Co. Ltd.

Market Development team

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