Eco Fuel Global Ltd.

Overview on EFG Product

An innovative eco-friendly substance/liquid to contribute towards a less polluted world

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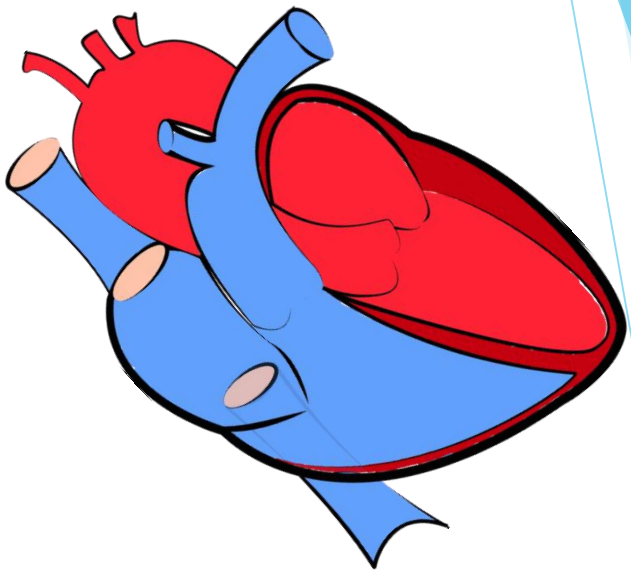
The continuing worldwide challenge

Despite decades of variant efforts by governments worldwide, ***air pollution*** is still considered the main challenge, with air quality that is in continuing decline over the past few years in many countries.

Health & Economic consequences

Union of concerned scientists highlighted that air pollution / poor air quality increases respiratory ailments like asthma and bronchitis, it also heightens the risk of life-threatening conditions like cancer and up to 30K premature death annually, with a ***health care system*** & ***substantial medical costs***.



The key contributors to Air pollution

"Air pollution is caused by solid and liquid particles and certain gases that are suspended in the air. ***These particles and gases can come from car and truck exhaust***, factories, dust, pollen, mold spores, volcanoes and wildfires. The solid and liquid particles suspended in our air are called aerosols."

As described shortly by NASA Climate Kids

Vehicles contribution to Air pollution

"Passenger ***vehicles*** are a major pollution contributor, producing significant amounts of ***nitrogen oxides***, ***carbon monoxide***, and other pollution.

In 2013, transportation contributed ***more than half of the carbon monoxide and nitrogen oxides***, and almost a ***quarter of the hydrocarbons*** emitted into our air."

As stated by Union of concerned scientists

Causes of vehicle's undesired emissions

Deposits

that deteriorate the air / fuel flow through the engine

Eco-friendly fuel additive substance

Fuel additive is a “chemical substance or preparation, added to fuel in concentration typically of less than 1% to impact or enhance desirable properties or to suppress undesirable properties” (Technical Committee of Petroleum Additive Manufacturers in Europe, 2013)

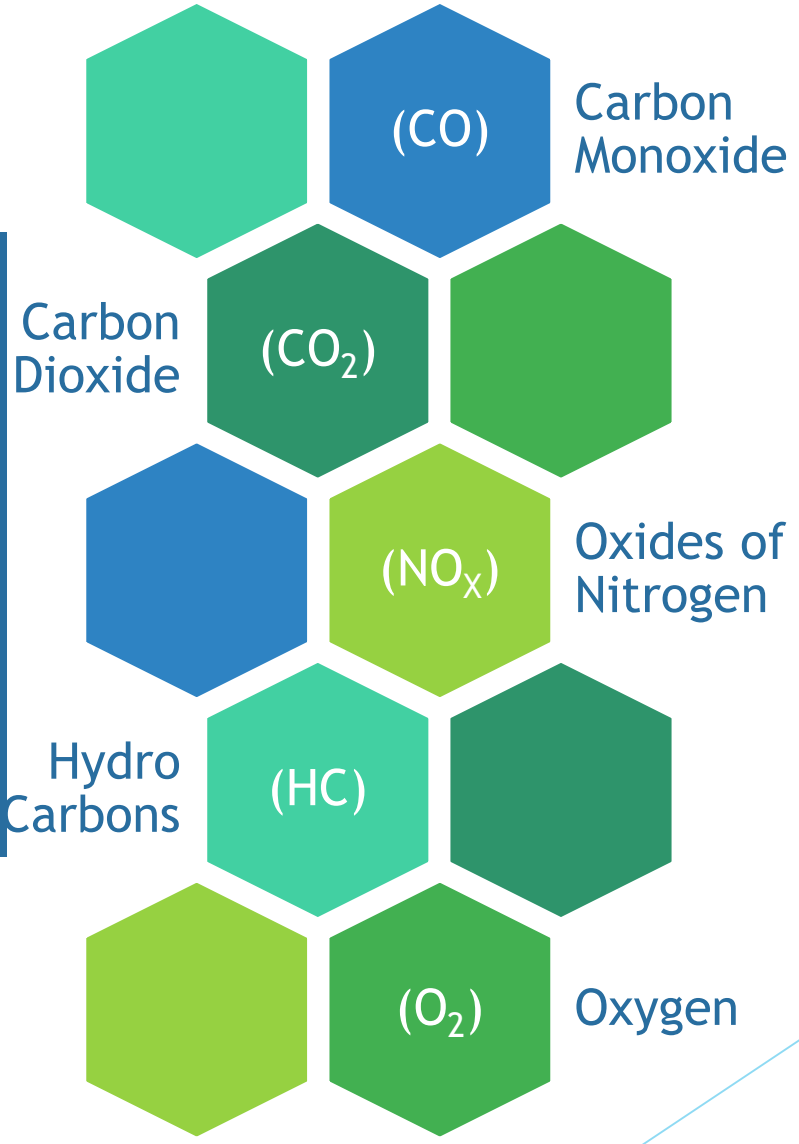
The substance function

Improves tail-pipe emissions by removing detrimental deposits from engine, fuel system and exhaust system

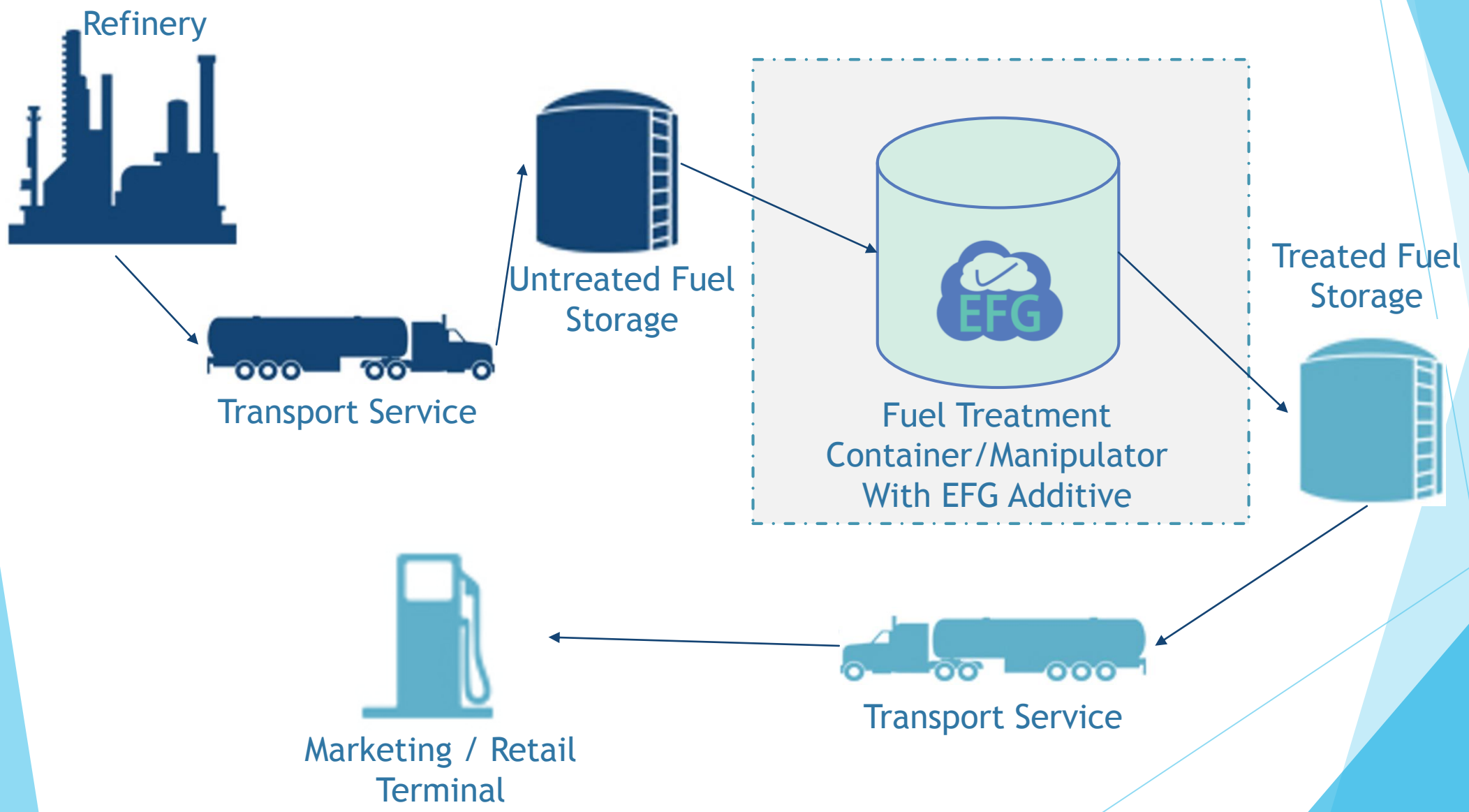
- Keeps entire engine fuel system clean
- Prevents formation of deposits
- Forms protecting films
- Helps to keep metal surfaces clean

The substance emissions' improvement

Tail-pipe exhaust emissions' improvement is observed through a significant change across 5 types of gases



Life cycle of fuel additive (before/after treatment)



EFG Pilot test (Standard Vs Treated Fuel)

Pilot test was conducted by Unitec Institute of Technology, Auckland, New Zealand

- Test Vehicle: 1998 Nissan Pulsar - ODM 241,539 KM
- Fuel Type: 91 RON
- Emission tester: AVL Series 4000
- Test at speed: Cruising engine speed 2000 +/- 10rpm
- Treated fuel does not mix with added substance due to density differences
- Car run distance on treated fuel with AC and electrical devices ON to load the engine: 250 km before repeating emission test

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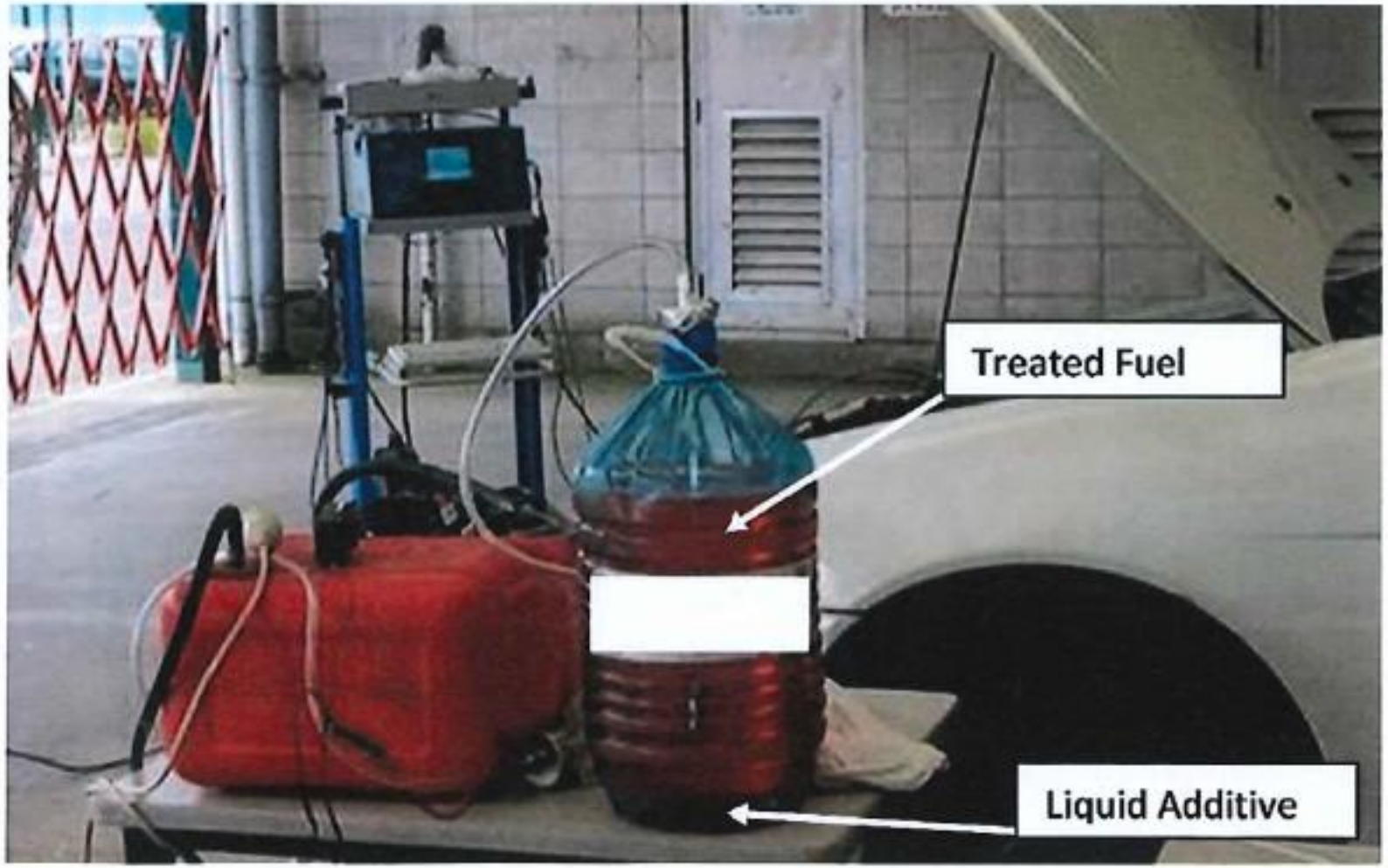

EFG Pilot test (Significant Results)

Results reported by Unitec Institute of Technology, Auckland, New Zealand - Oct 4, 2016

At Idle Engine Speed (RPM 730)	Standard Fuel	Treated Fuel	% Difference
Air/Fuel Ration or Lambda	1.0038	1.0030	-0.08%
Carbon Monoxide (CO) % Volume	0.592	0.350	-40.88%
Carbon Dioxide (CO2) % Volume	14.10	14.48	2.70%
Oxygen (O2) % Volume	0.716	0.480	-32.96%
Hydro Carbons (HC) ppm HEX	298.4	217.4	-27.14%
Oxides of Nitrogen (NOX) ppm Volume	469.8	335.8	-28.52%

At Cruising Engine Speed (RPM 2000)	Standard Fuel	Treated Fuel	% Difference
Air/Fuel Ration or Lambda	0.9912	0.9938	0.26%
Carbon Monoxide (CO) % Volume	0.500	0.376	-24.80%
Carbon Dioxide (CO2) % Volume	14.72	14.74	0.14%
Oxygen (O2) % Volume	0.186	0.128	-31.18%
Hydro Carbons (HC) ppm HEX	60.6	15.4	-74.59%
Oxides of Nitrogen (NOX) ppm Volume	330.8	94.0	-71.58%

Pilot test results: Substantial positive effect on tail-pipe exhaust emissions

Possibly due to more complete oxidation of Hydrocarbons

Indicates more efficient engine operation

Indicates more complete utilization of O2 as an oxidizing agent in the combustion process

Indicates a lower concentration of unburned or partialy burned fuel in the exhaust

Possibly due to decreased temperature of the combustion process

EFG Actual test (Standard Vs Treated Fuel)

Actual test was conducted by Unitec Institute of Technology, Auckland, New Zealand

- Test Vehicles: 5 cars with the years of manufacturing ranging between 1994 and 2006 and ODM reading between 112,004 KM and 264.001 KM
- Fuel Type: 91 RON / Standard
- Emission tester: AVL Series 4000
- Test at speed: Cruising engine speed 2500 +/- 50rpm
- Treated fuel does not mix with added substance due to density differences
- Car run distance on treated fuel based on normal driving condition on a highway: 250 km before repeating emission test

EFG Actual test (Comparative analysis of results)

Results reported by Unitec Institute of Technology, Auckland, New Zealand - Aug 7, 2018

Test car model, year of manufacturing, odometer reading	Idle engine speed					Cruising engine speed				
	Parameter									
	CO, %vol	CO_2, %vol	O_2, %vol	HC, ppm HEX	NO_x ppm vol	CO, %vol	CO_2, %vol	O_2, %vol	HC, ppm HEX	NO_x ppm vol
	Relative change, % and its statistical significance, Yes/No									
Toyota Camry 2000 246,487 km	+ 7.9 [1] No	+ 0.5 Yes	- 33.2 Yes	- 7.9 Yes	- 13.3 No	+ 3.1 No	+ 0.1 No	- 68.0 No	- 24.8 Yes	- 25.5 Yes
Volkswagen Golf 2001 186,299 km	- 6.1 [1] Yes	+ 0.4 No	- 9.4 Yes	- 7.1 No	- 7.7 Yes	- 30.8 Yes	- 0.1 No	+ 9.9 No	- 7.9 No	- 2.1 No
Mitsubishi Chariot 1994 239,131 km	After the test run the engine could not maintain the required 750 RPM					- 15.6 No	+ 0.8 No	- 29.0 Yes	- 20.5 Yes	- 14.3 Yes
Mitsubishi Galant 1999 264,001 km	+ 7.6 No	- 0.3 No	- 30.0 Yes	- 11.1 No	- 27.7 Yes	+ 8.8 No	- 0.3 No	- 11.6 Yes	- 18.8 Yes	- 17.1 Yes
Volkswagen Passat 2006 112,004 km	- 50.0 No	- 0.6 Yes	+ 2.7 No	- 17.3 No	+ 25.0 No	+ 16.7 No	- 0.3 No	- 30.8 Yes	+ 76.8 Yes	+15.0 No

Results **do not carry an importance** due to statistical insignificance.

Results **do not carry an importance** because the relative change of the parameter was too small (less than 1%).

Results **carry a limited importance** due to the registered values approached the lower limit of the measurement range and the actual change was close to the resolution capability of the testing equipment (0.01% for CO)

Results **carry a limited importance** because the registered actual change was within the allowed environmental level of the parameter (below 20 ppm for HC)

Results **are important** and statistically verified

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