

# RUBIA

ENGINE OIL

## It's time to trust your engine oil

**200+**  
APPROVALS  
FROM  
HEAVY VEHICLE  
MANUFACTURERS\*

\*For Rubia range in its entirety



**TotalEnergies**



[lubricants.totalenergies.com](http://lubricants.totalenergies.com)



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# RUBIA

## ENGINE OIL

### Cutting edge R&D in lubricant innovation for over 60 years

TotalEnergies is a leading global manufacturer and marketer of lubricants, with 41 production sites around the world and more than 5,800 employees in 160 countries. TotalEnergies' Lubricants business offers innovative, high-performance and environmentally friendly products and services, developed by its R&D centers, which employ over 130 researchers. TotalEnergies' lubricants division is a key partner for players in the automotive, industrial and marine markets.

### A leading global energy company

TotalEnergies' Marketing & Services business segment offers its professional and private customers a wide range of broad energy products and services—petroleum products, biofuels, charging and related services for electric vehicles, gas for road and maritime transportation—to support them in their mobility and help them reduce their carbon footprint. Every day, over 8 million customers visit our 16,000 service-stations all over the world. As the world's number four in lubricants, we design and sell high-performance products for the automotive, industrial and maritime sectors. We operate in 107 countries, where our 31,000 employees stand close to all of our customers.

### TotalEnergies, a Company Full of Energies

TotalEnergies is a broad energy company that produces and markets energies on a global scale: oil and biofuels, natural gas and green gases, renewables and electricity. Our 105,000 employees are committed to energy that is ever more affordable, clean, reliable and accessible to as many people as possible. Active in more than 130 countries, TotalEnergies puts sustainable development in all its dimensions at the heart of its projects and operations to contribute to the well-being of people.

# Engine oil technology approved by truck manufacturers



\*For Rubia range in its entirety

## Rubia products are tested and approved more than 200 times by Major Heavy Vehicle Manufacturers

(Original Equipment Manufacturers -OEMs-)

These product approvals are the guarantee certificates proving that Rubia products are 100% compatible with the engine technology of the related manufacturers.

### Premium products and tailor-made solutions to increase your operational efficiency

TotalEnergies increases uptime and lower maintenance costs, thanks to its Rubia premium engine oil range, tested in real world conditions during fleet tests and approved by Heavy Vehicle Manufacturers, and its Anac Fleet Management System, based on used oil analysis supported by its technical services team on the field. TotalEnergies develops tailor-made lubricants in its state of art R&D center in France. Products are developed in close collaboration with heavy vehicle manufacturers in order to match their sophisticated and most demanding technical requirements.



# Rubia takes care of your engine



## Engine Longevity: Protection against mechanical wear

Rubia products are developed with special molecules forming a strong film over metal surfaces, reducing mechanical wear in the presence of high pressure and extreme temperatures, improving engine longevity.



## Smoother and efficient engines: Better engine cleanliness

Rubia's advanced active molecules prevent formation of harmful deposits by keeping them dispersed. The products improve the longevity of the engine and make it run in a smoother and more efficient way.



## Longer oil change intervals: Resistance against oxidation

Synthetic base oils with outstanding anti-oxidant additives increase Rubia products' resistance to oxidation, even under extreme temperatures, thus extending oil drain intervals.



## Lower Oil Consumption: Better wear protection and engine cleanliness

Rubia products with special anti-wear additives minimize the amount of engine oil entering the combustion chamber and, by that, reduce oil consumption.



## Fuel economy properties: Excellent protection even with low viscosities

Engine oils can provide Fuel Economy gains via viscosity control and friction reduction. Lowering lubricant's viscosity reduces the overall friction in the engine, delivering Fuel Economy benefits. Rubia FE range is approved by Heavy Vehicle Manufacturers for use in their engines to achieve their FE targets.



## Equipment Longevity, reduced maintenance costs: Compatibility with exhaust gas after treatment systems

With their "low-SAPS" (low sulphated ash, phosphorus and sulphur) technology, Rubia products prevent the clogging of diesel particulate filters (DPFs) and protect diesel engines equipped with post-treatment systems, reducing maintenance costs and protecting the environment.

# Rubia Optima with Inno-Boost Technology



## Ready for the next chapter of engine technology

Rubia products offer excellent engine and after treatment systems protection, with extended drain intervals, for the latest, cleaner engines.

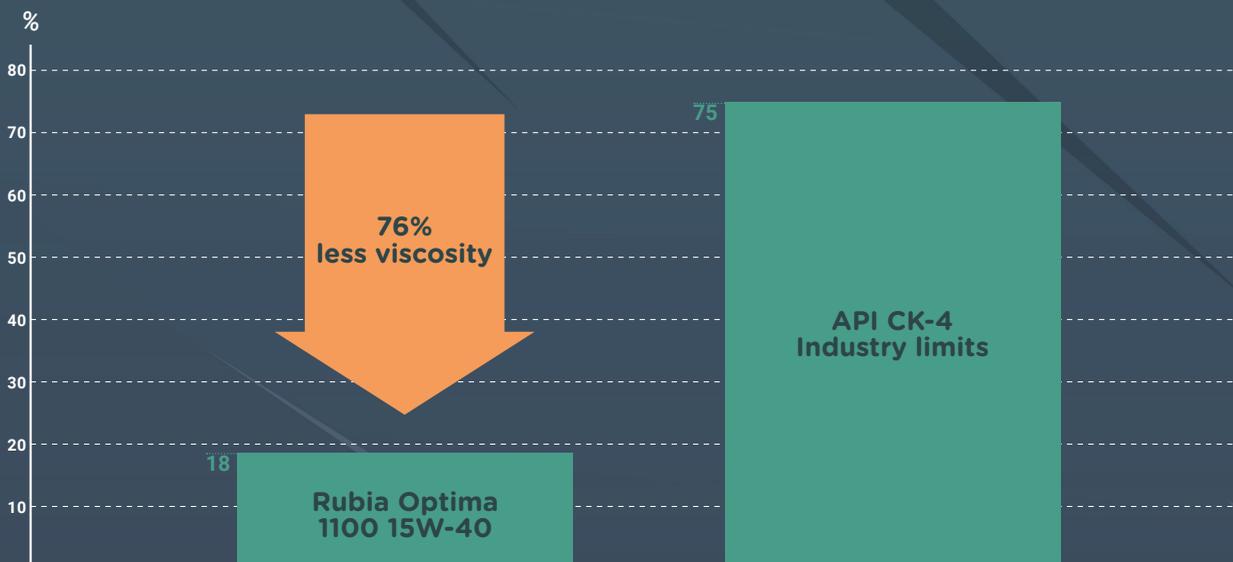
### Benefits of using Rubia Optima with Inno-Boost technology

- Increased uptime and lower maintenance costs
- Exceed API CK-4 and FA-4 specifications
- Longer engine oil life
- Excellent equipment longevity

Rubia Optima products, formulated with Inno-Boost Technology, incorporate right combination of strong anti-oxidant molecules. These active molecules inhibit the radical formation and keep hydrocarbon chains intact. As a result, the engine oil viscosity remains stable and engine oil keeps its properties for longer time.

**Up to 76% improvement against oil viscosity increase compared to API CK-4 Industry Limits.\***

\*Volvo T13 Test (KV 40 Viscosity Increase 300-360h)



# Rubia product range

**200+**  
APPROVALS  
FROM  
HEAVY VEHICLE  
MANUFACTURERS\*

\*For Rubia range in its entirety

ENGINE OIL TECHNOLOGY



## Rubia Optima with Inno-Boost technology

is engineered and approved for the latest technology engines and offers excellent engine longevity with extended oil drain intervals.

### API FA-4 Specification:

- Most advanced API Specification
- Exceptional Fuel Economy benefits: Rubia Optima range with its API FA-4 products prove extra fuel economy properties thanks to Total's innovative oil technology. These products have lower High Temperature High Shear (HTHS) viscosity (between 2.9cP and 3.2cP) than conventional fuel economy products (at 3.5cP and above). Reducing HTHS from 3.5 to 3.0cP would bring an extra 0.5% of Fuel Economy compared to conventional Fuel Economy products on average according to the leading Heavy Vehicle Manufacturers.
- For newer engines with limited backward compatibility. Please follow manufacturer recommendations.

Product name	Base Oil Technology	Extra Fuel Economy	Low-SAPS	International Specifications	OEM Approvals	OEM Meets the requirements of
Rubia Optima 5100 XFE 5W-20	FULLY SYNTHETIC	✓	✓		MAN M 3977	
Rubia Optima 4100 XFE 5W-30	FULLY SYNTHETIC	✓	✓	API FA-4	Volvo VDS-5, Renault Trucks RLD-5, Mack EO-S 5, MB-Approval 228.61	
Rubia Optima 2600 XFE 5W-30	FULLY SYNTHETIC	✓	✓	API FA-4	MB-Approval 228.61	Cummins CES 20087
Rubia Optima 2100 XFE 10W-30	SYNTHETIC TECHNOLOGY	✓	✓	API FA-4	Cummins CES 20087, DDC DFS 93K223	Ford WSS-M2C 214-B1

### API CK-4 Specification:

- Newest API specification surpassing API CJ-4.
- Can be used as replacement of your current engine oil.

Product name	Base Oil Technology	Fuel Economy	Low-SAPS	International Specifications	OEM Approvals	OEM Meets the requirements of
Rubia Optima 1300 15W-40	SYNTHETIC TECHNOLOGY			API CK-4/ CJ-4/CI-4+/ CI-4/CH-4	Cummins CES 20086, DDC DFS 93K222, Mack EO-S 4.5, MB-Approval 228.31, Renault Trucks RLD-3, Volvo VDS4.5, Ford WSS-M2C171-F1	DAF, Iveco
Rubia Optima 1100 FE 10W-30	CONVENTIONAL	✓	✓	ACEA E7, E9 API CK-4/ CJ-4/CI-4+/ CI-4/CH-4	Cummins CES 20086, DDC DFS 93K222, Mack EO-S 4.5, MB-Approval 228.31, Renault Trucks RLD-3, Volvo VDS-4.5, Ford WSS-M2C171-F1	DAF, Iveco
Rubia Optima 1100 15W-40 (Also suitable for CNG/LNG Engines)	CONVENTIONAL		✓	ACEA E9/E7 API CK-4/CJ- 4/ CI-4+/CI- 4/ CH-4/SN	Cummins CES 20086, DDC DFS 93K222, Mack EO-S 4.5, MB-Approval 228.31, Renault Trucks RLD-3, Volvo VDS-4.5, Ford WSS-M2C171-F1	DAF, Iveco

APPROVED BY TRUCK MANUFACTURERS

# Rubia Tir with Pro-Efficient Technology



## Protection approved by professionals, for maximum efficiency

Rubia Tir products are approved by Heavy Vehicle Manufacturers for the great majority of the existing truck park, with a very wide coverage from most demanding EURO VI engines to conventional EURO III engines. The Pro-Efficient Technology, developed by TotalEnergies Research and Development teams, protects and improves the efficiency of professional engines by ensuring reduced mechanical wear and extended oil drain intervals. Meaning longer engine life, less breakdowns and reduced maintenance costs. In other words, increased efficiency and profitability for your business.

### Benefits of using Rubia with Pro-Efficient technology

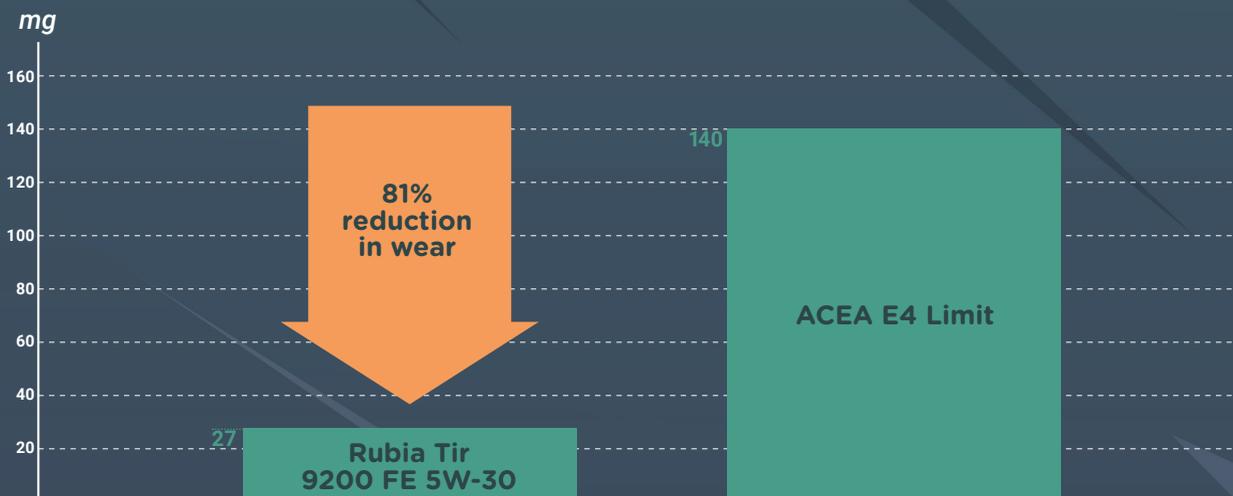
- Increased uptime and lower maintenance costs
- Outstanding protection against mechanical wear
- Longer Engine Life
- Lower oil consumption

Rubia Tir products with their Pro-Efficient technology form a strong protective layer on the metal surfaces avoiding direct contact in between moving engine parts thus minimizing mechanical wear.

Pro-Efficient Technology thanks to its right combination of extra resistant anti-wear molecules and viscosity modifiers helps to maintain the oil film intact even under extreme conditions; resulting in improved engine longevity.

**Up to 81% less mechanical wear compared to ACEA E4 Industry Limits.\***

\*OM 646LA Test (Cam Wear Outlet)





## Rubia Tir with Pro-Efficient technology

was developed closely with professionals. It increases efficiency and profitability of your business by providing excellent engine protection for the majority of the existing truck park – from Euro VI to Euro III engines.



\*For Rubia range in its entirety

### Rubia Tir low saps range

Product name	Base Oil Technology	Low-SAPS	International Specifications	OEM Approvals	OEM Meets the requirements of
<b>Rubia Tir 9900 10W-40</b> <i>(Also suitable for CNG/LNG Engines)</i>	FULLY SYNTHETIC	✓	ACEA E4, E6, E7, E9 API CJ-4/CI-4/CH-4	Cummins CES 20081, Detroit Diesel 93K218, Mack EO-O Premium Plus, MB-Approval 228.51, Renault Trucks RLD-3, Volvo VDS-4, Scania Low Ash	DAF, MAN M 3575/M 3477/M3271-1, Iveco TLS E9,
<b>Rubia Tir 8900 10W-40</b> <i>(Also suitable for CNG/LNG Engines)</i>	SYNTHETIC TECHNOLOGY	✓	ACEA E6, E7, E9 API CJ-4/CI-4/CH-4	Mack EO-O Premium Plus, MB-Approval 228.51, Renault Trucks RLD-3, Volvo VDS-4, Scania Low Ash	Cummins CES 20081, MAN M 3477/M 3271-1, DAF, Iveco TLS E9

### Rubia Tir standard range

Product name	Base Oil Technology	International Specifications	OEM Approvals	OEM Meets the requirements of
<b>Rubia Tir 8800 10W-40</b>	SYNTHETIC TECHNOLOGY	ACEA E4, E7 API CI-4	Mack EO-N, MAN M 3277, MB-Approval 228.5, Renault Trucks RLD-2, Volvo VDS-3	Cummins CES 20078
<b>Rubia Tir 8600 10W-40</b>	SYNTHETIC TECHNOLOGY	ACEA E4, E7 API CF	Mack EO-N, MAN M 3277, MB-Approval 228.5, Renault Trucks RLD-2, Scania LDF-3, Volvo VDS-3, VOITH Class A, ZF TE-ML 23A	DAF, Renault Trucks RXD
<b>Rubia Tir 7800 15W-40</b>	CONVENTIONAL	API CI-4 plus/CI-4/CH-4/SL	Mack EO-N, MB-Approval 228.3, Volvo VDS-3, Renault Trucks RLD-2	Cummins CES 20078, Caterpillar ECF-2, Detroit Diesel 93K214, MAN M 3275
<b>Rubia Tir 7400 10W-40</b>	CONVENTIONAL	ACEA E7 A3/B3 A3/B4 API CI-4/CH-4/SJ	Mack EO-N, MB-Approval 228.3, Kamaz, Renault Trucks RLD-2, Volvo VDS-3	MAN M 3275, MB 229.1 Cummins CES 20078
<b>Rubia Tir 7400 15W-40</b>	CONVENTIONAL	ACEA E7 API CI-4/CH-4/SL	Cummins CES 20078, Mack EO-N, MB-Approval 228.3, Renault Trucks RLD-2, Volvo VDS-3	MAN M 3275, Caterpillar ECF-1a, Iveco T2 E7, DAF, Scania, Isuzu,

# Rubia Fleet with Clean-Shield Technology



## Performance exceeding automotive industry standards

Rubia Fleet range is designed for high mileage trucks operating in very difficult road and fuel conditions.

Rubia Fleet products exceed the performance standards defined by the American Petroleum Institute (API) and the European Automobile Manufacturers' Association (ACEA), and meet the requirements of major Heavy Vehicle Manufacturers. Thanks to their Clean-Shield Technology, Rubia Fleet products keep engines cleaner even in the presence of hi-sulphur fuels, ensuring engine protection against mechanical wear and making engines run more smoothly for a longer time.

### Benefits of using Rubia Fleet with Clean-Shield technology

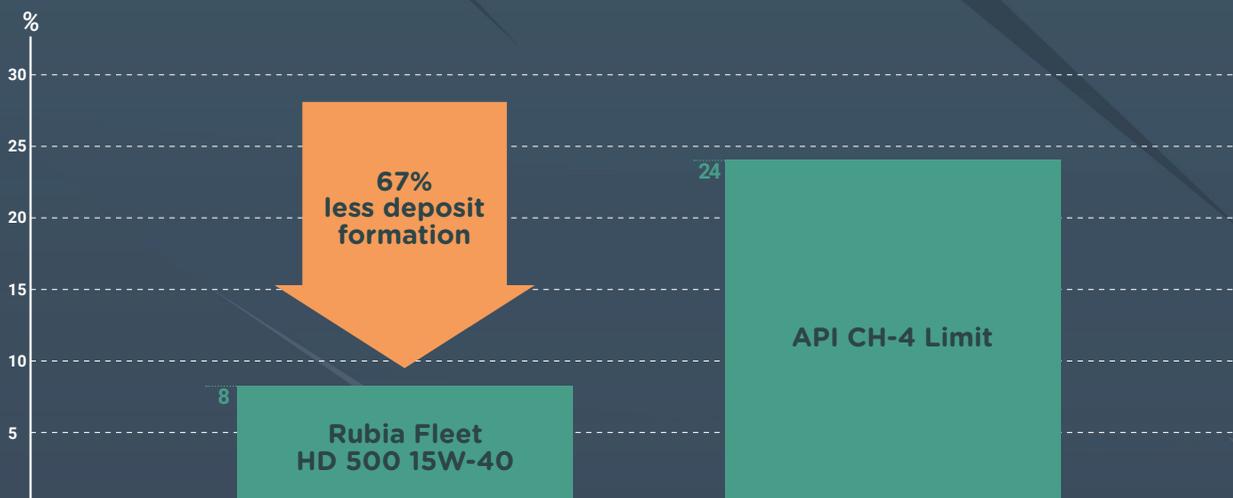
- Keeps engine parts clean
- Exceeds API and ACEA Specifications
- Longer engine life
- Lower oil consumption

The Rubia Fleet range, using high level of active detergent molecules, will allow to neutralize acidic species and protect the engine against corrosion.

Clean-Shield Technology with its high TotalEnergies Base Number (TBN) content is specially designed to keep the engine parts clean and to ensure protection against corrosion and wear, making your engines run more smoothly for longer time.

**Up to 67% less deposit formation compared to API CH-4 Industry Limits.\***

\*Cat 1K Test (Top groove fill)





## Rubia Fleet with Clean-Shield technology

is engineered for high mileage trucks operating in very difficult conditions, and keeps engines cleaner even in the presence of hi-sulphur fuels.

Product name	International Specifications	OEM Meets the requirements of
Rubia Fleet HD 500 15W-40, 20W-50, 10W-30	API CH-4/SJ	Mack EOM, MAN M 3275, MB 228.1, Renault Trucks RD/RD-2, Volvo VDS-2
Rubia Fleet HD 400 15W-40, 20W-50	API CG-4/SH	Mack EO-L, MAN 271, MB 228.1, Volvo VDS
Rubia Fleet HD 300 15W-40, 20W-50, 10W-30, 15W-50	API CF-4/SG	MAN 271, MB 228.1, Volvo VDS
Rubia Fleet HD 200 15W-40, 20W-50, 20W-40	API CF/SF	
Rubia Fleet HD 200 SAE 10W/30/40/50	API CF/SF	

# Rubia Fuel Economy

Rubia Fuel Economy products are specially formulated to maximize fuel economy properties without compromising on the engine protection.

## Why would you choose Rubia Tir Fuel Economy engine oil?

	<p><b>Over 20 years of Fuel Economy Experience</b> TotalEnergies has been developing FE products since the 1990's. Today, a third of TotalEnergies engine oils sold worldwide is formulated with FE technology</p>
	<p><b>Fuel Economy Partnerships with OEMs</b> Rubia Tir Fuel Economy range is developed in close cooperation with key OEMs. Therefore, the range is fully approved for use in their engines to achieve FE targets of the OEMs.</p>
	<p><b>Fuel Economy Lubricants for every application</b> Our wide range of FE solutions are suited for every application, including engines, gearboxes and axles.</p>
	<p><b>Tested on Real Roads and Certified for Fuel Savings</b> TotalEnergies Fuel Economy lubricants are tested on actual fleets operating in real-world conditions, and certified by independent testing organizations such as TÜV Rheinland, UTAC, and Millbrook.</p>

## Rubia Fuel Economy range

Product name	Base Oil Technology	Fuel Economy	Low-SAPS	International Specifications	OEM Approvals	OEM Meets the requirements of
<b>Rubia Tir 9900 FE 5W-30</b> <i>(Also suitable for CNG/LNG Engines)</i>	FULLY SYNTHETIC	✓	✓	ACEA E4, E6, E7, E9 API CJ-4/CI-4/CH-4	Mack EO-O Premium Plus, MAN M 3677, MB- Approval 228.51, Renault Trucks RLD-3, Volvo VDS-4, Scania LDF-4	Cummins CES 20081, DAF, Iveco TLS E6, Ford WSS-M2C213-A1, MAN M 3477/M3271-1
<b>Rubia Tir 9200 FE 5W-30</b>	FULLY SYNTHETIC	✓		ACEA E4, E7	Mack EO-N, MAN M 3277, MB- Approval 228.5, Renault Trucks RLD-2, Scania LDF-3, Volvo VDS-3, Voith Class A, Isuzu Recommended Lubricant (2020)	Cummins CES 20076/77, DAF, Iveco TFE
<b>Rubia Tir 8900 FE 10W-30</b> <i>(Also suitable for CNG/LNG Engines)</i>	SYNTHETIC TECHNOLOGY	✓	✓	ACEA E6, E7, E9 API CJ-4/CI-4/CH-4	Mack EO-O Premium Plus, MB-Approval 228.51, Renault Trucks RLD-3, Volvo VDS-4	Cummins CES 20081, MAN M 3477/M 3271-1, DAF, Iveco
<b>Rubia Tir 7400 FE 10W-30</b>	SYNTHETIC TECHNOLOGY	✓	✓	ACEA E7 API CI-4/CH-4	MB-Approval 228.3, Cummins CES 20078, Volvo VDS-3, Renault Trucks RLD-2, Mack EO-N	MAN M 3275, Detroit Diesel DFS 93K215

# Anac Transport

A preventive maintenance tool and fleet management system:

- ☑ Lifetime extension of your equipment park
- ☑ Reducing Total Cost of Ownership (TCO)
- ☑ Optimising reliability and performance

## What is the TotalEnergies Analyse Compared?

Anac Transport is a preventive maintenance tool and a fleet management system based on used oils analyses ensuring a **significant reduction of the TCO** of the customer by:

- preventing possible breakdowns,
- following regularly the condition of the lubricant and the wear of the mechanical components,
- reinforcing the lifetime and the reliability of the machines,
- optimizing the drain intervals safely.

Our professional clients are active in the automotive sector (road transport or non-road transport), industry and marine (internal and international markets). The Anac diagnostic service is provided worldwide by TotalEnergies subsidiaries to end users.

## Anac Transport

How does Anac generate the diagnosis and propose remedial actions?

The diagnosis and related corrective measures are provided by the Anac Transport system, which is based on:

- **40 years of experience** and contribution to the Anac database, **over 7 million analyzes on 1 million monitoring organs**,
- **Customers feedback** on successful remedial actions,
- **A comparison between the measured values and the wear references** thanks to algorithms excluding variable parameters such as oil level or drain intervals.

## Preventive maintenance tool for your vehicle fleet

A single analysis to cover all of your needs by ensuring optimal technical performance.



### Reduces downtime of your fleet.

Prevention of possible mechanical breakdowns.



### Increases the lifetime of your vehicle.

Decrease of the risk of excessive wear of the mechanical component.



### Optimizes the maintenance.

Control of your maintenance budget.



### Reduces the Total Cost of Ownership (TCO).

Optimization of the amortization of your vehicle park.

**Differential**

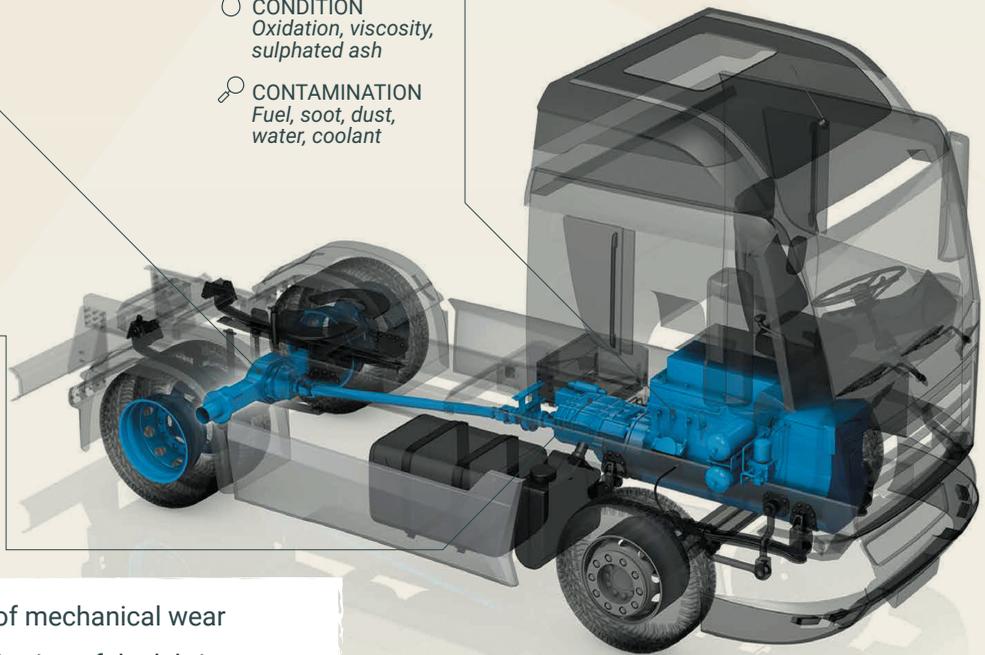
-  WEAR
-  CONDITION  
Viscosity
-  CONTAMINATION  
Dust, water

**Transmission**

-  WEAR
-  CONDITION  
Viscosity
-  CONTAMINATION  
Dust, water

**Engine**

-  WEAR  
Wear rate
-  CONDITION  
Oxidation, viscosity, sulphated ash
-  CONTAMINATION  
Fuel, soot, dust, water, coolant



-  Measurement of mechanical wear
-  Condition monitoring of the lubricant
-  Measurement of possible contaminations

**Support and partnership**

Thanks to our local implementation, we are committed to optimize your productivity and reduce your maintenance costs.

**Innovation and Research**

TotalEnergies invests in cutting-edge technologies to find raw materials that always bring you more energy savings.

**A major actor**

Our production facilities, our supply chain and our commercial presence over 150 countries enable us to deliver a complete line of lubricants to meet all your needs.

**Quality and environment**

The ISO 9001 quality certification of TotalEnergies Lubrificants guarantees a long-term commitment in this area. From creating a new product, our R&D teams develop formulations to minimize the risks of toxicity and the environmental impact.

**OEM and references**

TotalEnergies Lubrificants works with manufacturers and OEMs to create high-tech products, ensuring optimum performance and protection for your machines.

**reasons to choose TotalEnergies**





**TotalEnergies**

[lubricants.totalenergies.com](https://lubricants.totalenergies.com)