



lubricants and special products for cars



eni

eni.com

eni is a major integrated energy company, committed to growth in the activities of finding, producing, transporting, transforming and marketing oil and gas.

eni is an integrated company that operates across the entire energy chain, employing some 78,000 people in 90 countries around the world. Scientific research and technological innovation are at the heart of its strategies for sustainable development. Founded sixty years ago, eni today, more than ever, is a close, open and dynamic company. Its key values are sustainability, culture, partnership, innovation and efficiency, which are communicated across the world by a symbol, the six-legged dog.

eni is the leader operator in refining and marketing of petroleum products in Italy. It holds interests in some refining poles in Europe and is engaged in retail and wholesales activities in Central-Eastern European countries.

eni has always been involved in the research and production of high performance motor oils for all types of engines. The huge and well-structured range of eni products is made up of lubricants specially formulated to meet the needs of all kinds of vehicles in all different conditions of roads and climate providing the best answer to drivers' needs.

contents



● motor oils

p. 4

● transmission oils

p. 16



- manual transmission systems

p. 18



- automatic transmission systems

p. 20



● coolants

p. 22



● brake fluids

p. 26

● subsidiary products

p. 28

motor oils

eni i-Sint

This line of high-performance lubricants is designed to meet the needs of modern car fleet. It includes oils designed for the latest generation of engines which are particularly suited for vehicles fitted with anti-particulate filters.

i-Sint engine oils, designed to lubricate most of the existing car fleet, guarantee a high level of reliability in all driving conditions, for all types of cars, from compacts to sports cars, with petrol or diesel engines.

the eni i-Sint range is a complete range of top synthetic and synthetic technology lubricants designed to meet the needs of all kind of engines in different weather and roads conditions thanks to an accurate selection and balance of raw materials.



Which is the best lubricant of the car line?

The "Best" lubricant does not exist. In fact each car model has a specific lubricant which is best suited to its needs, whose characteristics and performance specifications are defined by the car manufacturer.



eni i-Sint lubricants passed all the most severe tests required by the international bodies (API and ACEA) and by car manufacturers thus guaranteeing maximum engine performance and protection; the range includes oils with special additives systems which do not affect the efficiency of the anti-particulate filters (eco-friendly) and also very fluid oils which, if allowed by the car manufacturer, increase fuel economy. eni i-Sint line includes also traditional engine oils, like eni i-Sint 10W-40, intended for conventional vehicles.

The extensive range of engine oils in this family includes modern technological products particularly suited for vehicles fitted with anti-particulate filters (products Mid and Low SAPS, acronym for Sulphated Ash, Phosphorus, Sulphur) and products based on more strengthened technology, such as i-Sint 10W-40, for use in traditional vehicles.



eni i-Sint

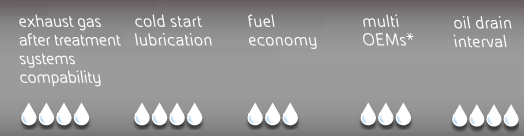
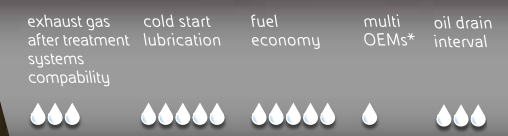


0W-20
API SN, ILSAC GF-5

synthetic technology

5W-30
ACEA C3, VW 504 00 + 507 00, MB Approval 229.51, BMW-LL-04, Porsche C30

top synthetic technology

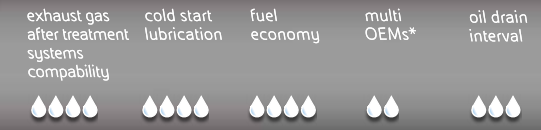
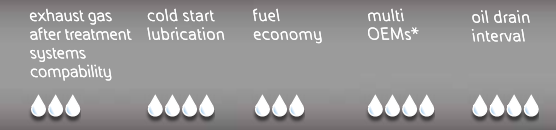


0W-40
ACEA A3/B4, API SN, MB Approval 229.5, Volkswagen 502 00 + 505 00, BMW LongLife 01, Porsche A 40 Renault RN 0700 0710

top synthetic technology

FE 5W-30
ACEA C2, API SN, meets FIAT 9.55535 S1

synthetic technology





eni i-Sint

MS 5W-30

ACEA C3, API SN, MB Approval 229.51, VW 502 00+505 01, BMW LL-04, meets GM dexos 2

synthetic technology



5W-40

ACEA A3/B4, API SM, VW 502 00 + 505 00, MB Approval 229.3, BMW LL01, GM LL-B-025, Porsche A40, RENAULT RN 0700, 0710

synthetic technology



10W-40

ACEA A3/B4, API SN/CF, VW 502 00 + 505 00, MB Approval 229.3

synthetic technology



What is the difference between “synthetic technology” and “top synthetic technology” shown in the i-Sint line lubricants?

The difference is in the technology of the base oils used. In both cases base oils derive from synthesis and chemical transformation processes, which are essential to meet certain performance levels; in “top synthetic technology” products, better quality synthetic base oils are used, which makes it possible to formulate even better “top” performance lubricants.

eni i-Sint

MS 5W-40

ACEA C3, API SN, MB Approval 229.51, VW 502 00 + 505 01, BMW-LL-04, Porsche A40

synthetic technology



TD 5W-40

ACEA A3/B4, API CF, VW 505 00, MB Approval 229.3, BMW LL01, GM LL-B-025, RENAULT RN 0700, 0710

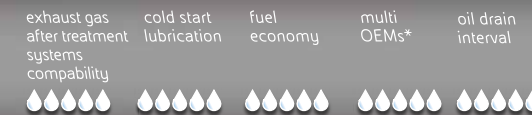
synthetic technology



TD 10W-40

ACEA A3/B4, API CF, VW 505 00, MB Approval 229.3

synthetic technology



eni i-Sint tech

The **eni i-Sint tech** line is aimed at customers looking for **product excellence**, which is able to satisfy the specific needs of some of the world's leading car manufacturers.

Formulated using very high quality bases and highly innovative components, i-Sint tech lubricants are a technological response to the specific requirements of manufacturers.

eni i-Sint tech



0W-30

VW 503 00 + 506 00 + 506 01, ACEA A5/B5-04
Top synthetic long-life lubricant designed for "Model year 2000" engines of Volkswagen group, with extremely high fuel economy, cold start qualities

M 5W-30

ACEA C1, JASO DL-1
Synthetic technology lubricant designed for Mazda engines. Extremely high compatibility with after-treatment systems, very high cold starting properties and fuel economy

ECO F 5W-20

Ford WSS-M2C 948B, ACEA A1/B1, API SN
Synthetic technology lubricant specific for EcoBoost and Duratec Ford engines. It can be used also in other Ford models. Extremely high fuel economy, very high compatibility with after-treatment systems, very high cold starting properties

G 5W-30

GM LL-A-025, GM LL-B-025, ACEA A3/B4-04, API SL/CF
Synthetic technology lubricant designed for General Motors engines. Very high cold starting qualities

R 5W-30

Renault RN 0720 MB 229.51, 226.51 ACEA C4
Synthetic technology lubricant specific for Renault diesel engines. Suitable also for Mercedes models equipped with Renault diesel engines where RN 0720 is required. Extremely high compatibility with after treatment system, very high cold starting properties and fuel economy

F 5W-30

Ford WSS-M2C 913D, ACEA A5/B5
Synthetic technology lubricant designed for Ford engines. Very high cold start and fuel economy qualities

P 5W-30

PSA B71 2290, ACEA C2
Synthetic technology lubricant specific for Peugeot and Citroën engines. Extremely high compatibility with after-treatment system, very high cold starting properties and fuel economy



eni i-Sint professional

The line has been specifically designed for professionals of the sector such as **as mechanics and accessory dealers**. They meet the performance specifications of most important European and American bodies.

The applicability of the products in this line depends on the evaluation **and the competence of professionals in the sector**, who can also always rely on the **eni** technical assistance team's support.



eni i-Sint professional

5W-40

ACEA A3/B4-04,
API SL/CF

exhaust gas
after treatment
systems
compatibility



cold start
lubrication



fuel
economy



multi
OEMs*



oil drain
interval



10W-40

ACEA A3/B4-08,
API SL/CF,
MB 229.1 quality,
VW 501 01 + 505 00 level

exhaust gas
after treatment
systems
compatibility



cold start
lubrication



fuel
economy



multi
OEMs*



oil drain
interval



eni i-Base

Series of mineral engine oils for traditional engines featuring high reliability and cleaning of mechanical parts. This line guarantees high engine protection for the entire duration of the oil load.

- eni i-Base professional 15W-40

API SJ/CF

- eni i-Base 15W-40

ACEA A3/ B4-04; API SL/CF; VW 501 01 + 505 00; MB 229.1 quality

eni i-Base

professional 15W-40

API SJ/CF

15W-40

ACEA A3/B4-04, API SL/CF,
MB 229.1 VW 501 01+ 505 00

exhaust gas
after treatment
systems
compatibility



cold start
lubrication



fuel
economy



multi
OEMs*



oil drain
interval



exhaust gas
after treatment
systems
compatibility



cold start
lubrication



fuel
economy



multi
OEMs*



oil drain
interval



What are the ACEA levels for light duty vehicles?

ACEA 2012 specifications include 3 categories classified as A/B, C and E.

The A/B category relates to lubricants for light-duty vehicles both gasoline and diesel; the C (Catalyst Compatible) category is for new generation passenger car engines equipped with exhaust gas after-treatment systems. Lubricants meeting ACEA C specification have a limited chemical contents which may reduce the efficiency of catalytic converter (mid/low SAPS -Sulphated Ash, Phosphorus, Sulphur- content). The E category is for heavy-duty diesel engine oils. Each category contains sub-categories which reflect different performance requirements based on motor and laboratory testing to stand and with chemical-physical features to respect.

	low SAPS	SAPS tradicional		low SAPS	SAPS tradicional
Fluids C1	A1/B1		Viscous	C3	A3/B3
C2	A5/B5			C4	A3/B4

(the above is to be used as a guideline only)

For a correct selection of the performance levels always refer to the instructions in the vehicle's maintenance guide. ACEA specifications are being constantly updated and significant differences could be found from one edition to the following one. For this reason the year should be reported next to the specification (e.g. A3/B4-04); if not reported it refers conventionally to the latest issued.



transmission oils

eni Rotra

eni lubricants for car transmissions have been designed to meet the main application needs for gearboxes and differentials **used in both manual and automatic transmission systems.**

The use of selected components allows the lubricant to offer a **high protection on gears**, in particular those subject to extreme pressures, and to keep the same performances for many kilometres.

Suitable for use in the **latest generation vehicles** as well as traditional ones.



Why are lubricants for transmission systems different from engine oils?

All vehicle transmission systems (gearboxes and differentials) require the use of gears, i.e. coupling of toothed wheels. If the correct lubricant is not used, since gears are often subject to high speeds and very heavy loads, degenerating phenomena may result involving mechanical wear of the metallic surfaces in contact with each other. These negative effects can occur at first with vibration and noise increasing till to the complete system breakage. An effective way to avoid problems is to always use dedicated lubricants that have a different formulation than motor oils since a strong rate of antiwear additives is required.



eni Rotra for lubrication of gearboxes and differentials used in manual transmission systems



eni Rotra

80W-90

API GL-1, API GL-3, FIAT 9.55550
For mildly loaded gearboxes without hypoid type gears

85W-140

API GL-1 API GL-3 FIAT 9.55550
For mildly loaded gearboxes without hypoid type gears

Hy 80W-90

API GL-4 MIL-L-2105 level MAN 341 Typ E1, Z2 ZF TE-ML 2B, 16A, 17A, 19A
VW TL 726 (level) Liebherr Cranes MB 235.1 level
With E.P. (Extreme Pressures) performance, for highly loaded gears

Hy DB 80W

API GL-4 MIL-L-2105 MB 235.1
ZF TE-ML 2B, 17A Liebherr Cranes
E.P. oil for gearboxes and axles with hypoid gears

Hy DB SYNTH 75W-90

API GL-4 MB 235.11 MAN 341 Typ MB
ZF TE-ML 8
E.P. oil for gearboxes and axles with hypoid gears

FE 75W-80

API GL-4+ ZF TE-ML 17A level
Synthetic technology with EP (Extreme Pressure) performance. Optimal characteristics for cold climates

FE 75W-90

API GL-4+ VW 501.50 (G 50)
Synthetic technology with EP (Extreme Pressure) performance. Optimal characteristics for cold climates

MP 80W-90

API GL-5, MIL-L-2105D, FORD M2C 105A, FORD M2C-154A, FORD SQM-2C-9002A/9008A/9101A, CHRYSLER MS-5644, GM MS 9985290, MAN 342 Typ M1, OPEL B 0401010, VW TL 727/726, VOLVO 97310/97313/97314, ZF TE-ML 16B, 17B, 19B, 21A, Liebherr Cranes
With E.P. (Extreme Pressure) performance, for heavily loaded hypoid gears operating under high loads and temperatures

MP 85W-140

API GL-5 MIL-L-2105D FORD M2C 105A FORD M2C-154A FORD SQM-2C-9002A/9008A/9101A CHRYSLER MS-5644 GM MS 9985290 OPEL B 0401010 Volkswagen TL 727/726 VOLVO 97310/97313/97314 ZF TE-ML 16D, 21A Liebherr Cranes
With E.P. (Extreme Pressure) performance, for heavily loaded hypoid gears operating under high loads and temperatures

MP/DB 80W-90

API GL-5 MAN 342 Typ M1 MB 235.0 MIL-L-2105D
ZF TE-ML 16C, 17B, 19B, 21A VW TL 727 Liebherr Cranes
E.P. oil for gearboxes and axles with hypoid gears, approved by Mercedes-Benz

MP/S 85W-90

API GL-5 FORD M2C-154A FORD M2C-105A
MIL-L-2105D ZF TE-ML 05C, 12C, 16E, 21C
E.P. oil with 'limited slip' characteristics for self-blocking differentials (fitted with hypoid gears and wet clutches)

LSX 75W-90

API GL4 GL5 MT-1 MAN 341 Typ E3 Z2 MAN 342 Typ M3 MIL-PRF-2105 E MB 235.8 level MACK GO-J SAE J 2360 SCANIA STO 1:0 ZF TE-ML 02B, 05B, 07A, 08, 12B, 16F, 17B, 19C, 21B Eaton Europe Meritor 076-N
Top synthetic technology, high performance oil for heavily loaded gearboxes and axles, allows very extended oil drains

eni Rotra ATF for lubrication of automatic transmission systems

eni Rotra ATF

ATF II D

GM Dexron II D FORD MERCON ALLISON C4 CAT TO-2 MB 236.6 level MAN 339 typ V1
MAN 339 typ Z1 level ZF TE-ML 04D, 11A, 14A VOITH H55.6335 (G607, Diwa and Midimat Transmissions)
MASERATI BMW RENK DOROMAT Vickers 35VQ25 Liebherr Cranes

For automatic transmissions and power-steering systems requiring GM Dexron IID performance

ATF II E

GM Dexron II E FORD MERCON ALLISON C4 CAT TO-2 MB 236.8 MAN 339 typ V2, Z2 level ZF TE-ML 4D,
9X, 14B, 16L VOITH H55.6336 (G 1363) (Diwa and Midimat Transmissions) VOLVO 97355

Top synthetic technology oil for automatic transmissions and power-steering systems,
delivers exceptional performances and allows very extended oil drains

ATF III

GM Dexron III G FORD MERCON ALLISON C4 M.B. 236.1
MAN 339 typ V1, Z1 level VOITH 55.6335 (G 607, Diwa and Midimat
Transmissions) ZF TE-ML 04D, 11B, 14A VOLVO 97341

For automatic transmissions and power-steering systems requiring
GM Dexron IIIG performance

ATF VI

GM DEXRON VI FORD MERCON LV

Top synthetic oil for latest technology automatic transmissions,
featuring an exceptional low viscosity at low temperatures. It complies
with most severe performance levels issued by the main international
manufacturers

ATF MULTI

GM Dexron III H ALLISON TES-295 FORD MERCON V MAN 339 Typ V1, Z2 MB-Approval 236.9 MB 236.3, 236.5, 236.6, 236.7,
236.10, 236.11 BMW LT 71141, LA 2634, ETL 7045, 8072B VW G 052 025 G 052 990 ZF 03D, 04D, 14B, 17C VOLVO Std 1273,4
AISIN JWS 3309 CHRYSLER ATF+3, ATF+4 JASO M315 Type 1A TOYOTA T-III, T-IV NISSAN Matic D, J, K LAND ROVER (N402)
HONDA Z1 KIA SP-III SUBARU ATF Plus, ATF-HP MAZDA ATF M-III, M5 JAGUAR Idemitsu K17

Top synthetic oil for automatic transmissions fitted on modern vehicles produces by most vehicles' manufacturers
modern vehicles produced by the world leading manufacturers

Is the same lubricant allowed to be used for manual and automatic transmissions?

Automatic transmissions are very complex systems where the lubricant must guarantee a deal of functions which greatly differ from each other: activates the torque converter, protects the gears engagements, provides the correct friction characteristics inside the multidisc clutches, and hydraulically activates the gearshift. Since in an automatic transmission the lubricant is normally subject to higher temperatures than into a manual system, a very high thermal-oxidative stress occurs which only a specifically formulated lubricant (called 'ATF': 'Automatic Transmission Fluid') can effectively fight.

Why is the viscosity grade given for manual transmission lubricants and not for ATFs?

Similarly to what happens for engine oils, SAE (Society of Automotive Engineers) also assigns a viscosity grade for car transmission lubricants based on viscosity values measured at high (100 °C) and low temperature. The most frequently found grades include 80W-90, 75W-90 and 85W-140. Since the viscosity of all ATFs is very similar and is not representing a significant distinctive feature, the indication of the viscosity grade is usually omitted.



coolants

eni Antifreeze

eni Antifreeze products are ideal for use in the most modern vehicles since they help guarantee an effective coolant action for engines, including very high-powered engines; it also offers maximum protection against corrosion.

All products are **highly biodegradable** thanks to their 'NAP free' formula (Nitrites, Amines and Phosphates Free).

- eni Antifreeze Extra
- eni Antifreeze Plus
- eni Antifreeze Spezial
- eni Antifreeze Ready

eni Antifreeze

Extra

CUNA NC 956-16 (ed. 12)

- suitable for most vehicles
- great value for money

Plus

VW TL 774 C, MAN 324 Typ NF, MB 325.0, NATO S-759, ASTM D 3306, BMW, OPEL, VOLVO, MASERATI

- concentrate liquid coolant, effective protection from corrosion and prolonged drain intervals

Ready

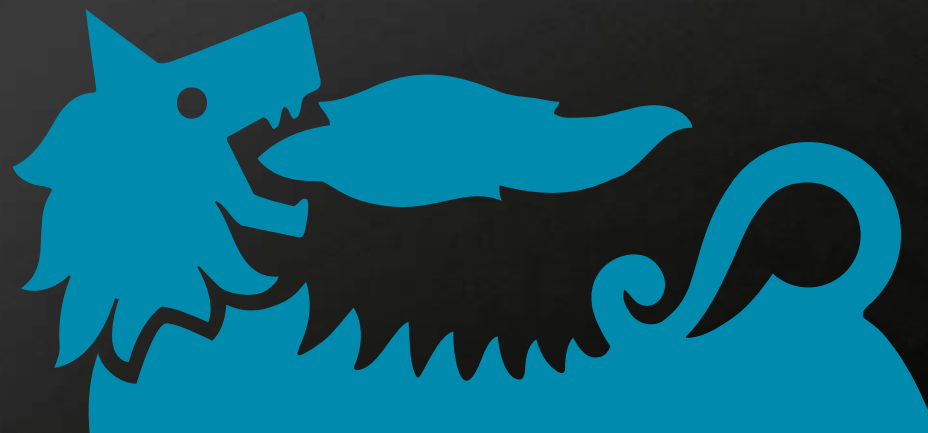
VW TL 774 C, MAN 324 Typ NF, MB 325.0, NATO S-759, ASTM D 3306, BMW, OPEL, VOLVO, MASERATI

- ready-to-use liquid coolant
- effective protection from corrosion and prolonged drain intervals

Spezial

VW TL 774 D/F (G12/G12+), MAN 324 Typ SNF, MB 325.3, NATO S-759, ASTM D 3306, BS 6580, FORD WSS-M97B44-D, DEUTZ 0199-99-1115/2091, OPEL GM 6277M, RENAULT 41-01-001/Q Type D, FW Heft R443, O-Norm V 5123

- concentrate liquid coolant
- excellent, fully organic technology (O.A.T. Organic Acid Technology) protection from corrosion and notably prolonged drain intervals





Coolant or 'antifreeze'?

Car cooling systems are designed to remove the heat produced by the internal combustion of the engine so that it can correctly operate in all seasons without altering or damaging its components. The systems are composed of closed circuits where a liquid flows, whose main function is to transfer heat from hot parts (engine) to the cool area (radiator) and, in order to prevent serious damage to the coolant itself, must withstand freezing at low temperatures and boiling at temperatures over 100 °C.

Although this definition has steadily become of common use, giving to coolant the name 'antifreeze' is restrictive since it only underlines one of the many [characteristics that a good coolant must possess](#).

Its functions are various, indeed: to protect the circuit from corrosion; to prevent the formation of deposits, to inhibit wear (cavitation) damaging the pump; to be compatible with hardness of the dilution water used to prevent precipitation of solids; to guarantee chemical compatibility not just with the metallic materials but also with the seals and rubber materials in general.



Brake fluids

eni Brake fluid

For the best braking system performance in the most extreme conditions, **eni Brake fluids** are the ideal solution. Even for racing, **eni** Brake Fluid products guarantee a prompt and effective braking action.

Their special formula makes it possible to prevent dangerous vapour lock and to keep the braking circuit in perfect working order thanks to the anti-corrosion properties for metals and chemical compatibility with rubber seals.

eni products comply with the severe performance standard issued by FMVSS116 DOT (Department Of Traffic) adopted by OEM's and that can be found in the maintenance booklet of the vehicles.

- eni Brake fluid DOT 3
- eni Brake fluid DOT 4
- eni Brake fluid DOT 4 plus
- eni Brake fluid DOT 5.1

eni Brake fluid



DOT 3

FMVSS 116 (DOT 3), SAE J 1703, ISO 4925 (class 3)

DOT 4

FMVSS 116 (DOT 4), SAE J 1704, ISO 4925 (class 4)

DOT 4 Plus

FMVSS 116 (DOT 3), SAE J 1703, ISO 4925 (class 4), FERRARI, MASERATI, VW-AUDI

DOT 5.1

FMVSS 116 (DOT 5.1), ISO 4925 (class 5-1)

Why is brake fluid important and what is it used for in a car?

The braking system is one of the most important parts for ensuring the safety of a car: it must have a high reliability and able to operate fast and with maximum efficiency.

The systems are composed of closed circuits filled with a specific liquid, whose function is to transmit the impulse of the braking action given by the driver to the brake pedal. The brake fluid circulates through the circuit until reaching the device (braking caliper) which, through direct contact with the wheel disc, makes it possible to perform the braking.

In the case of high speed, racing, long descents or heavy loads, intense and prolonged braking can occur: consequently the braking circuit and brake fluid are subject to significant increase in temperature. Therefore, one property of the brake fluid is to possess a high boiling point value to prevent the formation of vapour bubbles under these conditions. Since these bubbles can be compressed, they inhibit the propagation of the braking force causing the braking action failing. Further properties of the fluid include compatibility with the materials of the braking circuit, notably the seals, and resistance to oxidative processes that could affect performance durability.



subsidiary products

- **eni LHM Super**

special hydraulic fluid formulated for power-steering systems, suspensions and and brake systems of Citroën vehicles but suitable also for all those applications where manufacturer prescribes the use of an LHM type product. It provides an high and long lasting protection against the corrosion of the hydraulic systems even in rigid temperature conditions.

- **Grease MU, Grease MU EP, Grease LC and Grease SM** products range of high quality level for different and long lasting applications, very high protection;

- **Grease LCX and Grease MSX 2/460** a new range of synthetic greases for high temperature, suitable for extreme operative conditions.

- **eni CHF**

special synthetic fluid designed for power-steering systems, leveling systems, suspensions of those vehicles where the manufacturer prescribes the use of a CHF type synthetic fluid. It protects effectively from corrosion and thank to its high oxidative stability it provides long lasting performance even in rigid temperature conditions.

How can I find out which oil I should use for my vehicle?

Visit the eni website - eni.com - and click on:

- **products > automotive lubricants > find the right lubricants for your vehicle**

Enter the information requested and click on list oil type. A page will be displayed with the full list of suitable oils recommended by eni.

Where can I buy i-Sint products ?

At specialist car dealers and eni/Agip service stations.

The screenshot shows the 'eni Lubricant search' page. At the top, there's a language dropdown set to 'English' and links for 'log in' and 'eni.com'. The main heading is 'eni Lubricant search'. Below it, 'Option 1: vehicle search' is selected. It features a text input field for 'Make, model, type:' and a yellow 'search for vehicle' button. 'Option 2: look for your vehicle in our database' is also visible. This option includes a dropdown for '1. Category' (set to 'Choose a category'), and text inputs for '2. Make', '3. Model', and '4. Type'. A yellow 'List oil type' button is positioned to the right of these inputs.

10 reasons why with eni

1 sustainability

Respectful use of resources, be it people be it the environment. For example eni is also using re-refined base oils to produce certain lubricants where applicable.

2 trust

More than 60 years of experience in the lubricant business around the world.

3 internationality

eni lubricants are successfully sold in more than 100 countries.

4 world-class workforce

Working with eni means working with its highly motivated people committed to providing solutions to all customers every day.

5 research & development

More than 200 employees in research and development including the collaboration with the main research institutes in this field ensure eni's high-technology-position.

6 high-quality

Our products are based on a careful selection of the best raw material and additives in order to grant the best performing products.

7 integrated production cycle

eni produces finished products as well as its own base oils and additives.

8 customer care

Our personal mission is listen, understand and fulfil our customers' needs, hence involve them in our decision making process.

9 service

eni is committed to excellent and efficient service and high customer orientation with the aim to create value for all partners involved.

10 made in Italy

Italy's well renowned tradition and culture of design to improve the quality of life is a fundamental part of our thinking and products, so we are proud to export 'italianity' to all parts of the world.



Ι. ΚΑΣΙΜΑΤΗΣ Α.Ε.Ε.Ε.

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