



Research centre

The **Eni** Research Centre in San Donato Milanese has state-of-the-art laboratories featuring advanced equipment for studying, developing and fully identifying the characteristics of raw materials for high performance lubricants. In line with the company's marketing strategies, the **Eni** research involves performing important technical activities in collaboration with important machinery manufacturers, regulatory authorities and several prestigious Italian universities. The **Eni** Research Centre complies with the UNI EN ISO 9001 standard in relation to the activities of "Applied research, technical support and laboratory analyses in the energy sector: lubricants, additives, bitumens, special products for motor vehicles and for industrial use" and "Production on pilot systems of lubricants, propellants and fuels" (sector EA 34,35 - certificate no. 676).

Quality

Eni Refining & Marketing and Chemicals pursues the goal of continuous improvement through a "Quality Management System" certificated in accordance with the UNI EN ISO 9001:2008 in distribution and marketing of products.



Our commitment to ensure customer satisfaction

The **Eni Refining & Marketing and Chemicals** organization is able to support customers for any need regarding lubrication oils and to consolidate a confidential relationship based on integrated technical support services.



Sales assistance

The **Eni** sales network, present on the territory, provides information on the range of lubricating oils and assists customers in all the product procurement phases.



Technical assistance

Eni technicians are available to help solving any operative issue and can provide their assistance to arrange lubrication guides, to follow the oil charge monitoring and to offer training courses regarding lubrication.

Laboratory assistance

The **Eni** laboratories give their full assistance to customers for the oil charge control by periodic monitoring in order to guarantee the best operating efficiency of lubricated machineries.



Eni spa
Refining&Marketing and Chemicals



Eni lubricants for the food industry



eni

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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 more than 84,000 people in 83 Countries around the world. Our way of doing business, based on operating excellence, focus on health, safety and the environment, is committed to preventing and mitigating operational risks.

Eni Refining&Marketing and Chemicals has always been committed to researching and producing ultra-high performance lubricants and operates in the industrial market in Italy, Europe and various other Countries.

The **Eni** lubricant lines for industry are able to meet all the lubrication needs of industrial plants of any type with a quality level to the top of the market.

Eni places scientific research and technological innovation at the core of its sustainable growth strategies.

Eni Refining&Marketing and Chemicals maintains and reinforces its technical and commercial leadership status in the fields of technology, quality, environmental protection and technical support for its customers.

Eni lubricants for the food industry

Eni has developed a "food grade" line of lubricants capable of meeting the production requirements of the food, pharmaceutical, cosmetics and animal feed industries.

Using **Eni** "food grade" lubricants enables the customer to:

- minimise the risk of food contamination in all the various production phases, as required by the procedures of the HACCP protocol (Hazard Analysis Critical Control Point),
- meet the lubrication requirements of all machines used in the production processes,
- ensure high product quality standards,
- maximise productivity.

The lubricants of the **Eni** "food grade" line are only formulated with raw materials from FDA Group 21 CFR 178.3570* and are approved and registered by the NSF** as H1, i.e. "Authorized where the lubricant may incidentally come into contact with food".

The NSF mark is the guarantee that the product has been approved by one of the best independent certification organisations respected and recognised by consumers, producers and regulation agencies worldwide.

The lubricants of the **Eni** "food grade" line are produced in a plant certified in accordance with the ISO 21469 standard. This international standard defines the hygiene requisites required for the formulation, production, use and handling of H1 lubricants that may accidentally come into contact with products and packaging used in the food, pharmaceutical, cosmetics and animal feed industries.

The lubricants of the Eni "food grade" line:

- Do not contain the main allergens: derivatives from the dairy industry, peanut oil, soy and derivatives.
- Do not contain genetically modified ingredients.
- Do not contain animal derivates.
- Are "Kosher" certified as products that comply with Jewish law.
- Are "Halal" certified as products that comply with Islamic law.

* The F.D.A (Food and Drug Administration) is a US Government organisation that regulates food and pharmaceutical products and aims to protect the health of citizens by implementing regulations that control the introduction of the products under its jurisdiction to the market.

** The N.S.F (National Sanitation Foundation) is a US organisation established in 1944, which verifies and registers the lubricants that are suitable for use in food industries.


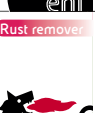





Warnings: it is advisable to store "food grade" lubricants separately from traditional lubricants and chemical products, in an indoor environment and at a temperature between 0° and +40°C.










Lubricants oils

Products	Type	Viscosity ISO VG	Applications	Advantages	International Specifications
Hydraulic and pneumatic systems oils					
Tilia 	Pharmaceutical white oil	15 22 32 46 68 100	- Hydraulic systems. - Pneumatic systems. - Small gearboxes.	- High viscosity index - High anticorrosion, antiwear, antioxidant properties.	NSF H1 Kosher - Halal
Tilia 	Synthetic oil	32 46 68 100	- Hydraulic systems. - Applications at low and high temperature. - Small gearboxes.	- High viscosity index. - Excellent cold behaviour and excellent thermal oxidation stability. - High anticorrosion, antiwear, antioxidant properties.	NSF H1 Kosher - Halal
Compressor oils					
Tilia 	Synthetic oil	46 68 100	- Air compressors. - Vacuum pumps (ISO VG 100).	- Wide operating temperature range. - High viscosity index. - Excellent resistance to oxidation. - High antifoam performance. - High thermal stability. - Excellent anticorrosion and antiwear properties.	NSF H1 Kosher - Halal
Gear oils					
Ribes 	Synthetic oil + Pharmaceutical white oil	150 220 320 460 680	- Gears. - Plain and rolling bearings. - Slideways and conveyor belts.	- Excellent antiwear and EP properties. - Excellent anticorrosion and antioxidant properties. - Good cold behaviour.	NSF H1 Kosher - Halal
Ribes 	Synthetic oil	150 220 320 460	- Gears. - Plain and rolling bearings. - Slideways and conveyor belts.	- Wide operating temperature range. - Excellent antiwear and EP properties. - Excellent anticorrosion and antioxidant properties. - Outstanding cold behaviour.	NSF H1 Kosher - Halal
Chain oils					
Myrtus 	Synthetic oil	150 220 320	- Chains and conveyor belts. - Slideways. - Plain and rolling bearings.	- High penetration capacity and adhesivity. - Wide operating temperature range (-25/+180°C). - Low tendency to leave residues at high temperature. - High anticorrosion, antiwear and antioxidant properties.	NSF H1 Kosher - Halal
Myrtus 	Synthetic oil	320	- Chains and conveyor belts. - Slideways. - Plain and rolling bearings.	- High penetration capacity and adhesivity. - Recommended for use at extreme temperatures (250°C). - Low tendency to leave residues at high temperature. - High anticorrosion, antiwear and antioxidant properties.	NSF H1 Kosher - Halal

Lubricants aerosol

Products	Type	Applications	Advantages	Range of use	International Specifications
Ribes 	Multipurpose synthetic lubricant	- Connections, chains, slideways, conveyor belts, small gears and bearings.	- Wide operating temperature range. - High long-term protection against corrosion. - Good antiwear properties. - High oxidation stability. - Good resistance to water washout.	-50/+180°C (after solvent evaporation)	NSF H1
Ribes 	Rust remover and anticorrosion synthetic lubricant	- Loosens extremely rusty screws and nuts. - Rust removing - Long-term corrosion protection.	- Deep penetration through rust. - Resistant to humidity and condensation. - Excellent anticorrosion and antiwear properties.	-50/+180°C (after solvent evaporation)	NSF H1
Ribes 	Silicone lubricant	- Connections, chains, slideways, seals and components operating in a wide range of temperatures. - Release agent and protective agent for plastics surfaces.	- Wide operating temperature range. - Extreme compatibility with plastic materials. - Water and steam repellent. - Good resistance to chemical products. - Good protection against oxidation and corrosion.	-50/+200°C	NSF H1
Rubus 	Multipurpose EP synthetic grease	- Slideways, chains, conveyor belts, hinges, small gears and bearings, also loaded, operating in a wide range of temperatures, in wet environments and in the presence of water or steam.	- High penetration ability, non-hardening and non-stick. - Excellent resistance to wear and loads. - Excellent adhesivity. - High protection against corrosion and resistance to water washout and steam. - Excellent thermal and mechanical stability at low and high temperatures.	-45/+180°C (peaks 200°C) (after solvent evaporation)	NSF H1
Lavanda 	Fast solvent-based lubricant	- Removal of dirt, oil residues, grease and sludge from surfaces tools and machinery.	- Penetrates deep through dirt, grease and sludge. - Evaporates easily, dries quickly without leaving residues on the surfaces.	-30/+40°C	NSF H1

Lubricants greases

Products	Type Thickener	NLGI grade	Applications	Advantages	Range of use	International Specifications
Rubus 	Pharmaceutical white oil - Aluminium complex	000 00 0 1 2	- Plain and rolling bearings. - Loaded bearings of conveyor belts. - Chains, joints, gaskets and seals. - Gears and gearboxes.	- Excellent sliding properties. - Good resistance to loads. - Good water washout resistance. - High anticorrosion and antioxidant properties.	-15/+120°C	NSF H1 Kosher - Halal
Rubus 	Synthetic oil - Aluminium complex	000 00 0 1 2	- Multipurpose EP greases for all types of bearings. - Loaded bearings of conveyor belts. - Gears, gearboxes, slideways, joints, gaskets, seals and chains.	- Excellent performance and stability at high and low temperature. - Excellent resistance to loads. - Good water washout resistance - High anticorrosion and antioxidant properties. - Very good pumpability at low temperature.	-40/+140°C	NSF H1 Kosher - Halal
Rubus 	Pharmaceutical white oil - Inorganic	00 2	- Conveyor belts, components and bearings not loaded of bakery industry, olive mills, of bottling industry and wine-making companies.	- Transparency and absence of colour and odour. - Excellent adhesivity. - Insoluble in water. - Good thermal stability.	-25/+100°C (NLGI 00) -20/+120°C (NLGI 2)	NSF H1 Kosher - Halal
Rubus 	Pharmaceutical white oil - Inorganic	2	- Release agent for grills and oven dishes for bakery products, cakes and pasta. - Lubrication of knives and cutting boards for fruit, vegetables and meat. - Bearings and components operating in direct contact with the food. - Suspended chains and conveyor belts.	- Transparency and absence of colour and odour. - Excellent adhesivity. - Insoluble in water.	-20/+120°C	NSF 3H Kosher - Halal
Rubus 	F.D.A. silicone oil - Inorganic	3	- Taps, valves, fittings in plastic materials and rubber. - Insulating grease. - O-rings, domestic taps, expansion valves exposed to high or low temperature. - Electrical cables and wires. - Pumps for potable water.	- High stability and resistance to high temperature. - Insoluble in water and steam. - Excellent resistance to chemical agents. - Compatible with elastomers, rubbers and plastic materials. - Very good protection against oxidation, and corrosion.	-50/+220°C	NSF H1 Kosher - Halal
Rubus 	PFPE - PTFE	2	- Bearings, gears, slideways and chains operating at very high temperatures also with high loads. - Components operating in aggressive environments. - Rubber and plastic materials.	- Excellent stability at high temperature. - Excellent resistance to loads. - High resistance to water washout and steam. - Chemically inert and resistant to strong acids and bases, halogens, alkaline baths, solvents and aggressive agents. - Compatible with elastomers, rubbers and plastics. - Good anti-corrosion properties.	-35/+250°C (peaks 270°C)	NSF H1 Kosher - Halal
Rubus 	Synthetic oil - Anhydrous calcium	2	- Bearings, slideways, gears and chains operating in cold and wet environments.	- High protection against corrosion. - Excellent adhesivity and water pressure resistance. - Good antiwear properties.	-30/+120°C	NSF H1 Kosher - Halal
Rubus 	Pharmaceutical white oil - Calcium complex	1,5	- Bearings, open gears and components loaded and subjected to vibrations, and shocks. - Chains and components operating in aqueous or semi-immersed environments.	- Very good adhesivity. - High resistance to loads, vibrations and shocks. - High thermal and mechanical stability. - Excellent resistance to water washout. - High protection against corrosion.	-20/+140°C (peaks 150°C)	NSF H1 Kosher - Halal
Rubus 	Pharmaceutical white oil Calcium sulphionate complex	2	- Bearings, open gears and components loaded and subjected to vibrations, and shocks. - Chains and components operating in aqueous or semi-immersed environments. - Fan bearings and electric motors.	- Excellent resistance to loads, vibrations and shocks. - High thermal and mechanical stability. - Excellent adhesivity, water washout resistance and protection against corrosion.	-25/+140°C (peaks 180°C)	NSF H1 Kosher - Halal

For further information on applications and features of products see **Eni** technical and safety data sheets.