

DP Lubrificanti S.p.A.

Informational Brief



The Company

The company

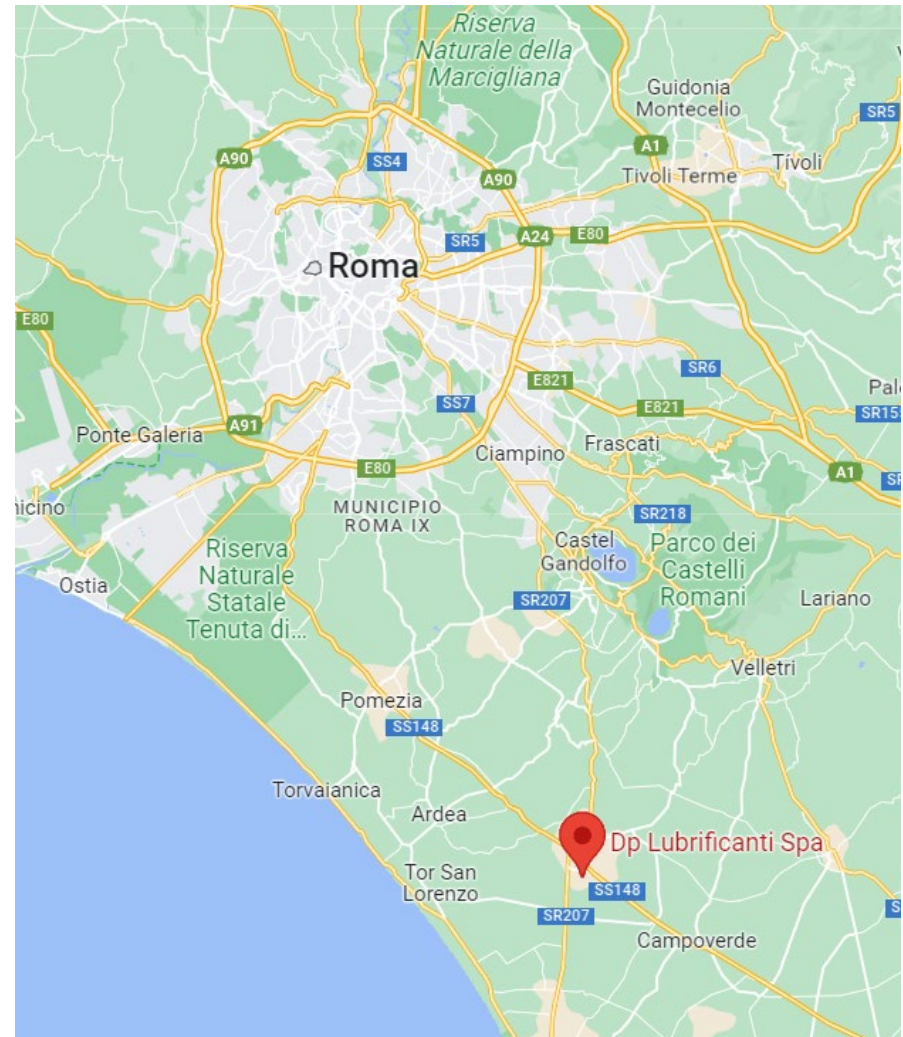
DP Lubrificanti S.p.A. is a leading company in environmental protection and in the production of biofuel (Biodiesel).

Its historical and continuous presence in the market, quality production and GHG savings positions it among the most reliable and appreciated in the biofuel sector.

The company is located in Aprilia (50km south of Rome), covers an area of 4 hectares. The facilities include a vegetable or animal oil refining unit, a biodiesel plant able to produce up to 150.000 ton/year and also another unit for the production of electricity.



Company location



Our Mission

The DP Lubrificanti project was born at the beginning of the 2000s, with the scope of producing a biofuel that would favor the use as raw materials, waste such as used oils originating from restaurant activities (UCO-Used Cooking Oil) rather than raw materials that could compete with food chains (refined soy, rapeseed and sunflower oils), 20 years before what ENI does today in its bio-refineries.



The quantity of refined soybean, rapeseed and sunflower oils used in the biodiesel plant was quickly eliminated and replaced with saponified fatty acids, a waste product obtained from refining of vegetable oils, and category 1 and 2 animal fats both defined as second-generation raw materials.

Raw Materials

Benefits of using UCO, Fatty Acids and Animal Fats, cat 1 & 2 for biofuel production

Used cooking oils are a poison for the environment: Its inadequate disposal can have harmful effects on the environment by hindering wastewater treatment, can be highly toxic to ecosystems and cause damage to common pipeline systems and public networks.

Fatty acids are a waste obtained from the chemical refining of vegetable oils. The biodiesel supply chain represents an ideal use for this product and because they are in almost all cases inadequate for other supply chains such as zootechnical use.

Category 1 and 2 animal fats, due to their origin, if not used in the biodiesel sector would be sent for destruction by incineration.

These raw materials if introduced into the biodiesel sector guarantee great benefits for the environment such as:

- high GHG savings compared to biofuel produced from potentially edible oils and even higher compared to fossil fuel.
- The reinsertion of these waste in a circular economy system avoids dispersing them in the environment, reducing risk of serious impacts on the ecosystem.
- valorization of waste by transforming it into a new form of ecological fuel.

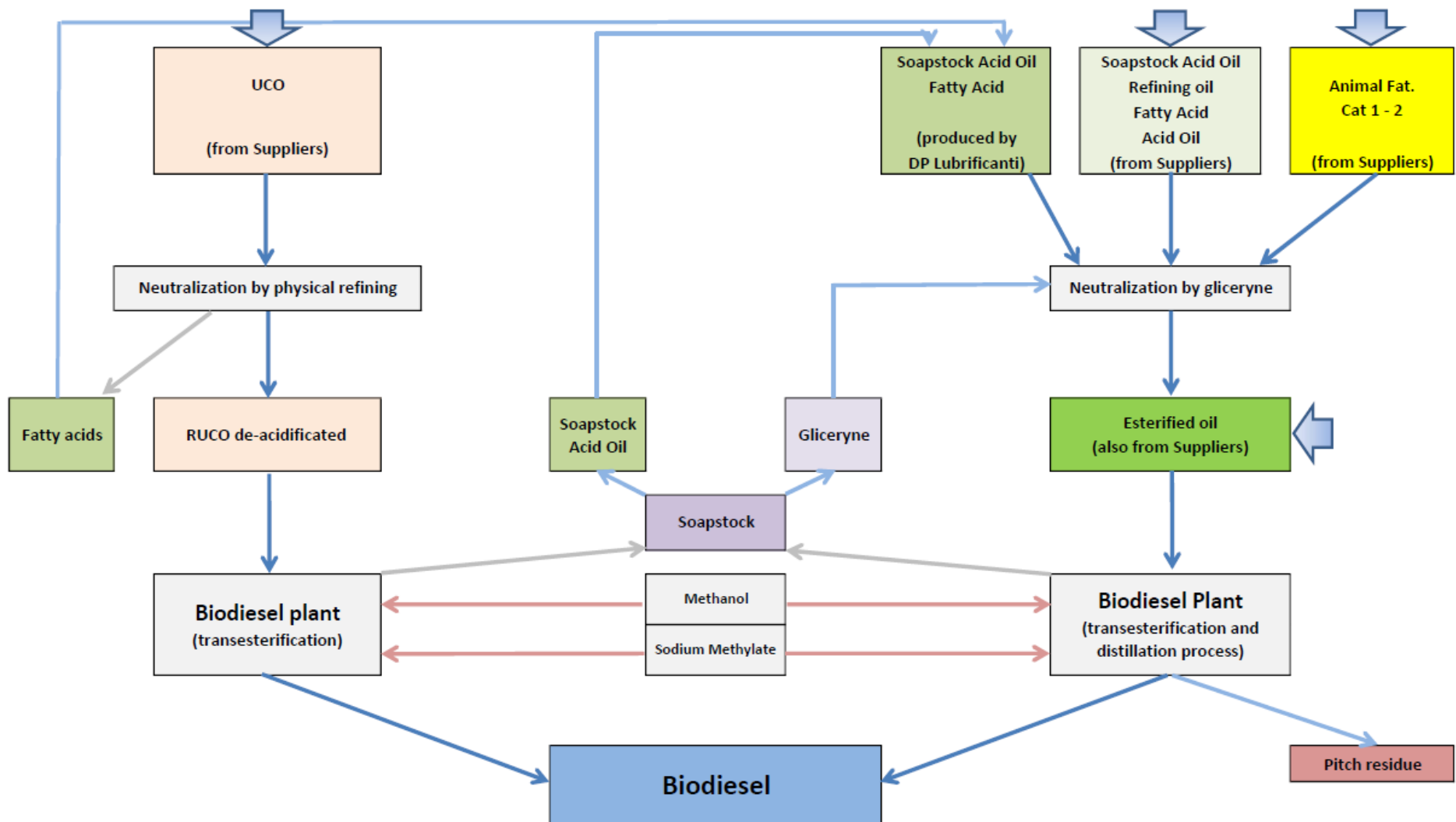
We can define DP Lubrificanti as a precursor about sustainability application in transport, having anticipated by a decade the current European and National provision in terms of GHG savings.

The use of biofuel produced by DP Lubricants in transport cut CO2 emissions in the atmosphere of over 175,000 tons.

A Virtuous Process

The DP Lubrificanti has a virtuous process:

the production of biodiesel implies the collateral production of various by-products and wastes and for each of which a reuse has been identified inside and outside the company by optimizing the process maximizing product outputs and minimizing the production of industrial waste sent for disposal.



PRODUCTS

Biodiesel

Biodiesel production is the core business of DP Lubrificanti.

It is sold to the main players in the petroleum business. The diesel for consumers has around 10% of biodiesel in energy content.

DP Lubrificanti mainly operates in the Italian, however, in case of opportunity, is also open to the European market



The biofuel produced complies with EN 14214 specification.

Depending on the raw materials sent for processing, a distillation phase is necessary at the end of the biodiesel production process in order to make the product complies with legal specifications.

A Virtuous Process

PRODUCTS

Electricity Production

The DP has 2 generators for the production of electricity, each one with a capacity of 1 megawatt.

One of the two engines is fed with biogas produced by biodigesters and the electricity produced is fed into the sales network to the GSE (Electricity Services Operator)

The second one, powered by methane taken from the grid, produces electricity used internally at the plant. This second generator is certified as C.A.R. (high efficiency cogenerator). In fact, the fumes produced by it are used for the production of steam at 10 Bar reused in the plant while the heated water is used to heat the tanks of raw materials and final goods.

Distillation residues

Is the by-product obtained from the distillation of biodiesel.

Is sold in northern European countries and used as fuel for the production of heat and / or electricity.

Fatty Acids

During the process we have the production of 2 kinds of fatty acids:

From the refining of UCO, and from the production of biofuel (soapstock acid oil). These 2 kinds of fatty acid are both classified at the origin as a waste, treated inside the plant, and then reintroduced as a raw material.

Glycerine

It is the main waste product obtained from the transformation of oils into biodiesel.

Glycerin has a triple possibility of use:

- used internally for the neutralization of fatty acids,
- sold to customer for NON-pharmaceutical industrial use
- sent to one of the two anaerobic biodigesters for the production of biogas.

Looking at the Future

Looking at the future

DP Lubrificanti S.p.A., as it has done since its birth, is constantly looking for continuous improvement about the impact of its activities on the environment and the efficiency of its production processes.

So, the next projects are focused on:

- the installation of a park of photovoltaic panels, able to produce 500 KW or more
- the realization of a biodiesel plant by enzymatic pathways that would significantly reduce methane consumption as it bypasses the neutralization step of the oils that requires process temperatures around 200 ° C