Renewables and Oleo-chemicals

For industrial producers working with renewable feedstock, we offer tailor-made solutions that range from studies and licenses to complete turnkey facilities.

At Air Liquide Global E&C Solutions, we have extensive experience in the conversion of renewable feedstock to bulk chemicals for the energy, food and chemical sectors.

Our technological offer encompasses complete process units, as well as innovative concepts to convert oils to high-grade intermediate oleo-chemicals such as fatty acids, fatty alcohols, methyl esters and pharma-grade glycerin.

Of note, our plants feature innovative systems for energy recovery as well as sophisticated process combinations, providing dually beneficial effects on your business and the environment. These plants are optimized to keep your initial capital as well as ongoing operating costs as low as possible.

Our joint venture in the Asia Pacific region established in 1992 between Lurgi and its local partner Jebsen & Jessen in Kuala Lumpur, Malaysia, was designed to serve the needs of our customers in this region, easing access to local project execution support, the fabrication of equipment and engineering services. Most plant references to date have focused on oil seed extraction, natural oil refining, biodiesel and oleo-chemicals.

Conversion of agricultural feedstock

We understand how to efficiently transform raw products from farming into higher value intermediates or final products for food and fine chemical production. This includes oil seed processing among which crushing, extraction and oil refining, including dry fractionation of the trigycerides as well as oleo-chemical downstream conversion to fatty acids, fatty alcohols, methylesters and glycerols.

Oilseed processing

For oilseed processing, we have a well known technology that will meet your specific challenges in the recovery of oil from customary oilseeds such as soybeans, rapeseed, sunflower seeds, sesame, palmkernel and peanuts.

Oil and fat refining

Our range of oil and fat refining technologies include different physical and chemical refining processes that will be adapted to your specific demand, the particular feedstock, the requirements of the desired end-product as well as further downstream processes.

These processes include chemical refining (neutralization); various methods of enzymatic & chemical degumming; continuous and semi-continuous deodorization; and stripping of fatty acids; among many more.

Oleo-chemicals

We are the market leader for the conversion of fats and oils to oleo-chemicals going to the food, chemical and energy sectors. These oleo-chemicals include fractionated fatty acids. methylesters. fatty alcohols, and glycerol.

Our processes include spitting of oils; fractionation, distillation and hardening of fatty acids; treatment of glycerol water; glycerol distillation & purification to pharma quality; among several others.

Renewable chemicals and fuels

From glycerin refining systems, to biodiesel and bioethanol, we are one of the forerunners and leading promoters of renewable chemicals and fuels.

With higher yields for lower costs, our oleo-chemical technologies, especially to fatty acids, fatty alcohols and methalesters (biodiesel), offer a decisive competitive edge over other biodiesel production processes.

Oleochemicals Portfolio