

quality custom manufacturing



NATURE  TRACTS

NatureXtracts, the right Custom Manufacturing Partner for you!

1. State-of-the-art bioprocessing facilities
2. Exclusive and differentiated operating mode
3. Scientific expertise matching with your requirements
4. Technical consultancy to make the design decisions you require
5. Compliance with quality standards and regulatory requirements
6. Delivery capabilities

The flexibility of our equipment makes possible to customize to fit your demands.

This will enable **NatureXtracts** to produce your exclusive essential oil, oligosaccharides or even your lipid or water extracts.





Supercritical CO₂ Extraction

Supercritical CO₂ extraction is a distinguishing and innovative technology for producing high value compounds. It is a high pressure process working at relatively low temperatures (produces high quality extracts since the integrity of temperature sensitive compounds is maintained) and under oxygen absence which will totally preserve the valuable natural extracts.

CO₂ is food grade and considered GRAS (Generally Recognized As Safe), an American Food and Drug Administration designation. Extracts obtained through supercritical CO₂ extraction are, therefore considered suitable to integrate cosmetics and personal care products.

Extracts produced through Supercritical CO₂ extraction are sterile, highly pure, completely free from solvents and need no preservation.

NatureXtracts offers its clients expertise in the extraction of natural compounds for cosmetic and food industries using supercritical CO₂ extraction technology.

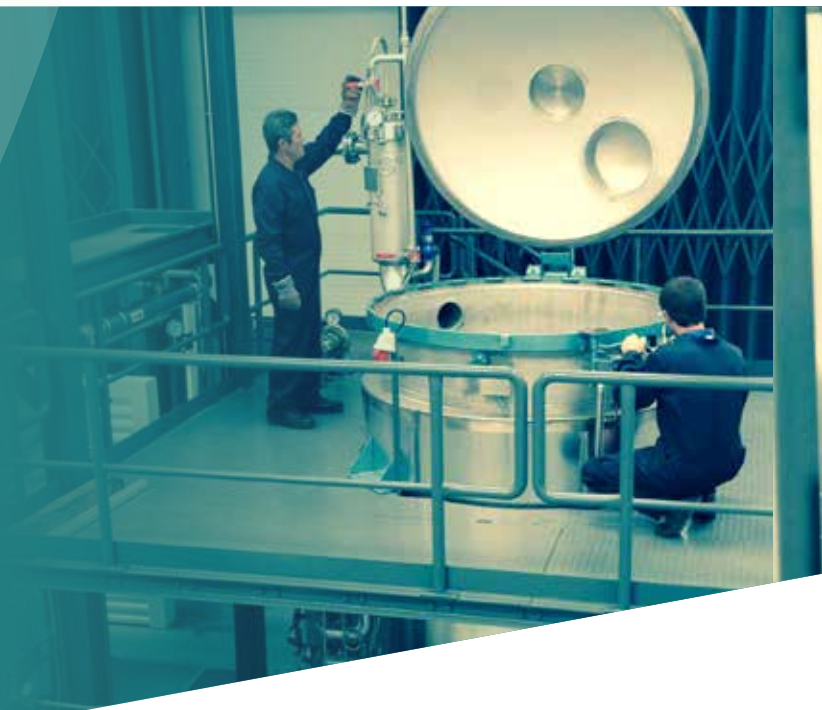
Steam and Hydro Distillation

Steam distillation is commonly used to extract essential oils from vegetable material. In this extraction method, the steam will remove the aromatic molecules from the biological material at a faster rate preventing the oil damage.

The degradation of the essential oil can also be avoided by controlling the temperature and the amount of steam applied to the matrix.

Hydro distillation is one of the most traditional methods of essential oil extraction and hydrolat production. In this process water is used instead of vapor.

In both methods the vapors of the volatile components are carried by the steam to a condenser and valuable therapeutic products are obtained.



The mission of **NatureExtracts** is to promote the concept of biorefinery, producing and exporting products with high added value, using processes with low environmental impact and high technological content.



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Lyophilization

Also designated as freeze drying, lyophilization is a water removal process. In this dehydration technique, products are first frozen and subsequently subjected to conditions of pressure very close to the vacuum, which will enable the sublimation of the water molecules.

The applications of freeze drying are numerous but it's always the right choice when the preservation of temperature sensitive products, particularly those of biological origin, such as enzymes, blood plasma, vaccines is important.

Freeze drying is typically used to preserve perishable materials, to extend shelf life or make the material more convenient for transport.



Bioreactor

Fermentation is a biological mechanism carried out by certain bacteria and yeast and consists in the conversion of sugar into products such as alcohols and acids. For many millennia, we have been taking advantage of this natural process mainly in food production/manufacturing.

Now-a-days, the application of fermentation technology has been expanded to a wide variety of fields such as Pharmaceuticals, Cosmetics and Bioenergy.

Target cell growth, production of fermentation derivatives such as exopolysaccharides and bioethanol, as well as enzymatic hydrolysis are examples of the potential applications of this technology.





Quality

Superior quality has always been the goal of **NatureExtracts!**

NatureExtracts' laboratory is fully-equipped with High Performance Liquid Chromatography and Gas Chromatography systems and UV/ VIS spectroscopy that turns possible the detection of a multitude of different compounds.

You can have confidence in our ability to process your natural ingredients, ensuring reproducibility and providing the required quality documentation.

NatureExtracts will be very pleased to process your raw materials and deliver you high quality tailor-made natural extracts!

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