

Extracting the essence of nature  
since 1962



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Your experts in scCO<sub>2</sub>-Extraction

[www.NATECO2.de](http://www.NATECO2.de)



# Selection of refined substances



- Hops
- Berries
- Seeds
- Herbs
- Flavours
- Cocoa
- Nuts
- Grains
- Natural Dyes
- and many
- Algae
- Natural Oils
- Spices
- Medicinal Plants
- more ...

## Extraction of natural substances using supercritical CO<sub>2</sub>

NATECO<sub>2</sub> is the global market leader in scCO<sub>2</sub>-contract manufacturing with an annual processing amount of several thousand tons of a wide variety of natural raw materials. For more than 30 years now, NATECO<sub>2</sub> has specialized in extracting natural substances, by using supercritical carbon dioxide.

Our scCO<sub>2</sub>-technology achieves concentration and purification of high-value ingredients, by applying moderate

temperatures in an antibacterial and oxygen-free atmosphere, without any harmful solvents. Active components and flavours are preserved, by exposing products to minimum strain.

In cooperation with our customers, our consultancy team develops ideas out of market-ready concepts. Our ongoing innovations guarantee NATECO<sub>2</sub>'s status as world market leader in scCO<sub>2</sub>-based processes.

### We offer solutions for the following industry branches:

- Food & Beverages
- Cosmetics
- Pharmaceuticals
- Food Supplements/Nutraceuticals



## Capabilities & Services

Focusing also on feasibility studies and product developments, we established an R&D-center, applying operating pressures of up to 1,000 bar. As an intermediate step, a pilot plant, which is adequate for R&D-purposes, as well as for small-scale productions, is available. The 1,000 bar unit is complemented by a production plant, to guarantee upscaling from a kilo-gram- to a tons-range, demonstrating unique capabilities and NATECO<sub>2</sub>'s leadership in the area of supercritical CO<sub>2</sub>-extraction.

Furthermore, several industrial extraction lines, with varying capacities from 500 L up to 16,000 L, offer great flexibility for customers, interested in extracting several hundred kilograms up to a multi-tons range.

Optimum preparation of raw materials is crucial in accomplishing efficient extractions. NATECO<sub>2</sub> is well equipped with various multi-sized grinding and drying systems, in order to meet this task. Our high standards regarding product & process safety are guaranteed, rechecked and continuously improved by our in-house, state-of-the-art

laboratory. Determination of a multitude of natural products' substances, for instance vitamins, terpenes or fatty acids, as well as analysis of pesticides' residues, pose important fields of activity. In addition, we offer various analyses for hemp (e.g. cannabinoids, terpenes) and algae (quantifications of carotenoids, e.g. Astaxanthin).

Flexible blending, standardization, filling, packaging and storage possibilities complement our service concept. Additionally, NATECO<sub>2</sub>'s Logistics Team possesses expertise in customs handling and worldwide distributions.

# NATECO<sub>2</sub>



## Certifications

We complemented our existing Quality Management System DIN EN **ISO 9001** by Environmental Management System DIN EN **ISO 14001**. As a food producer we, of course, meet the European and German law requirements concerning food hygiene. Since 2004 we have established an HACCP-Concept, which has proven itself, as well as been integrated in certification of Management System for Food Safety DIN EN **ISO 22000** since 2019.

We correspondingly oblige ourselves, to transparent handling of food and feed, at a continuously high level. These certifications are complemented by Kosher- and Bio-certificates. There already is a Halal-certification, for selected products, in place. Based on customers' request, we are open to further Halal-certifications.

## Sustainability

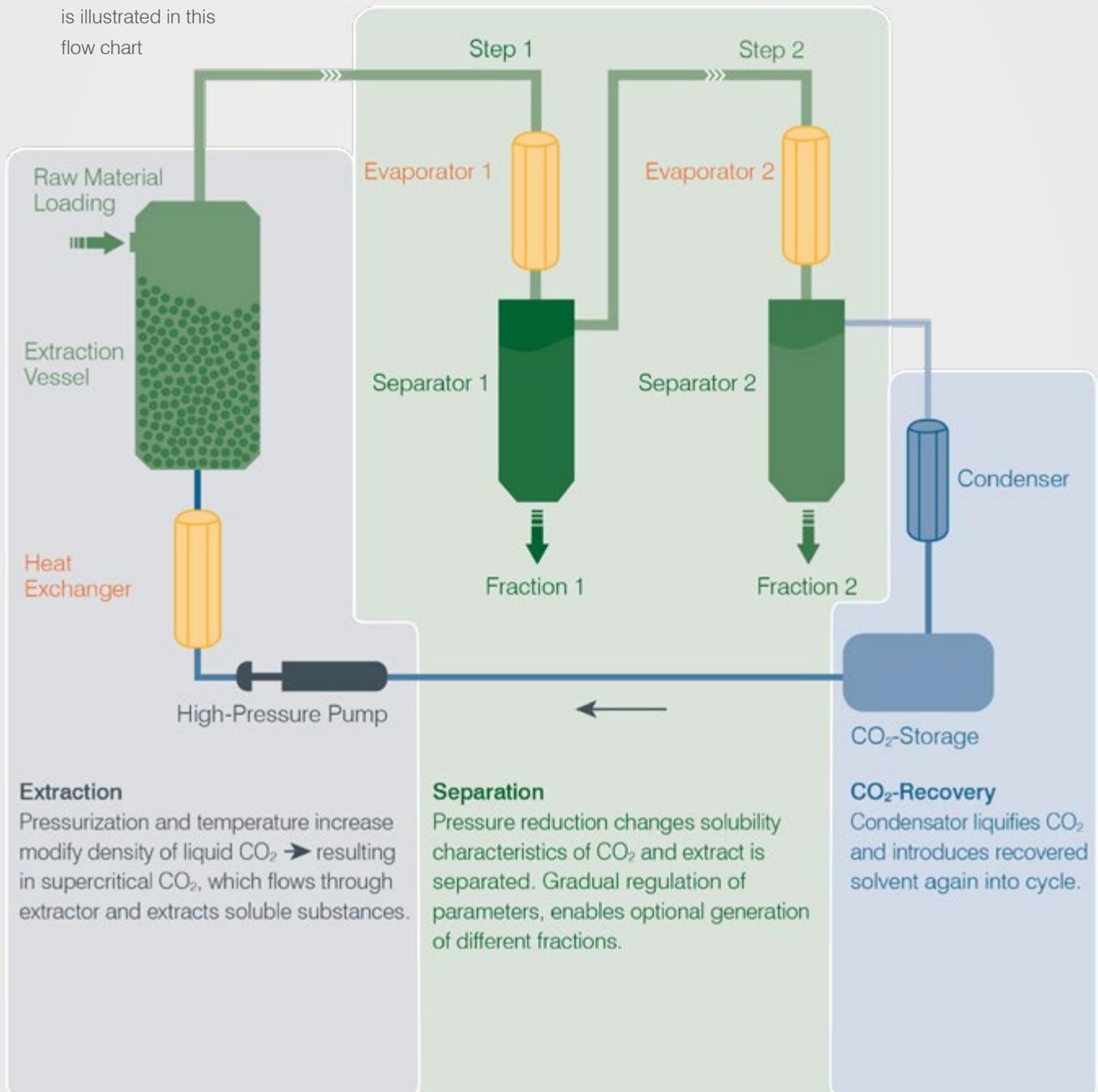
In accordance with our company's policy, we understand that „sustainable management“ means careful handling of ecological resources, to protect society and the environment. At NATECO<sub>2</sub> it's all about CO<sub>2</sub> – the „green“ solvent. Biogenic CO<sub>2</sub> used is generated, as a by-product, through plant fermentation processes and therefore considered absolutely „neutral“, from an ecological balance's point of view. NATECO<sub>2</sub>'s patented extraction technology ensures its safe and effective application. Ongoing improvements

in production and effective recycling processes, result in only minor losses of CO<sub>2</sub>. Additionally, this proprietary high-pressure technique enables omission of organic solvents, which are often classified as toxic and lead to enormous efforts and costs, when dealing with their environmental-friendly disposal. Products are not contaminated and can be utilized immediately in corresponding applications.



## Technology

Technical process is illustrated in this flow chart



# NATECO<sub>2</sub>



**Now it is your turn to choose  
the essence of nature!**



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