



NATECO₂

Your Experts in scCO₂-Extraction



www.NATECO2.de



Since 1962

Selection of refined substances



- Algae
- Proteins
- Natural Oils
- Hemp
- Cocoa
- Coconut
- Spices & Herbs
- Medical Plants
- Saw-Palmetto
- Flowers & Berries
- Grains, Seeds & Nuts
- Flavours
- Fragrances
- and many more...

Extraction of natural substances using supercritical CO₂

NATECO₂ is a global market leader in **scCO₂-Contract Manufacturing**, with an annual processing capacity of up to 20,000 tons, for a multitude of natural raw materials. For around 40 years NATECO₂ has specialized in extracting natural substances, by using supercritical carbon dioxide. Our supercritical CO₂-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.

Besides extraction, we possess a wide range of alternative CO₂-Techniques, for development of novel processes and products.

Processing Capabilities

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 multiple tons.

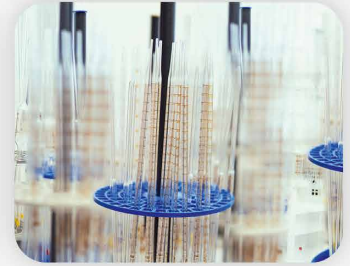
We offer solutions for the following industry branches:

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



NATECO₂

More Service. More Nature.



Additional 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 small-scale productions, is available. The 1,000 bar unit is complemented by a production plant, to guarantee **upscaling** from a number of kilograms to several hundred tons, demonstrating unique capabilities and NATECO₂'s leadership in the area of supercritical CO₂-Extraction.

Optimum preparation of raw materials is crucial in accomplishing efficient extractions. NATECO₂ is well equipped with variously sized **grinding and milling 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**, which is **accredited** acc. to DIN ISO 17025. NATECO₂'s lab is your **Analytical Companion** covering Content Analytics for Food, Feed & Cosmetics, Fat Analytics, Residues &

Contaminants, Method Development & Validation along with Stability Analyses. Our applied procedures comprise specifically developed methods, official methods, as well as intl. ISO-Procedures. A modern, digital Lab Management System enables individual customer access for rapid retrieval of results.

Flexible **blending, standardization, filling, packaging** and **storage** possibilities complement our **service concept**.

Additionally, NATECO₂'s Logistics Team possesses expertise in customs handling and worldwide distributions.

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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. We also 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**.

We correspondingly oblige ourselves to transparent handling of food and feed at a continuously high level. These certifications are complemented by Bio- and NOP-Certificates as well as an FDA-Registration of our operations. In addition, Halal- and Kosher-Certifications are available for selected products.

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 NATECO₂ it's all about CO₂ – the „**green**“ solvent. **Biogenic CO₂** used is generated, as a by-product, through plant fermentation processes and therefore considered absolutely „neutral“, from an ecological balance's point of view.

NATECO₂'s extraction technology ensures its safe and effective application.

Ongoing improvements in production and exemplary recycling processes, result in only **minor losses** of CO₂. 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 environmentally-friendly disposal. Products are not contaminated and can be utilized immediately in corresponding applications.



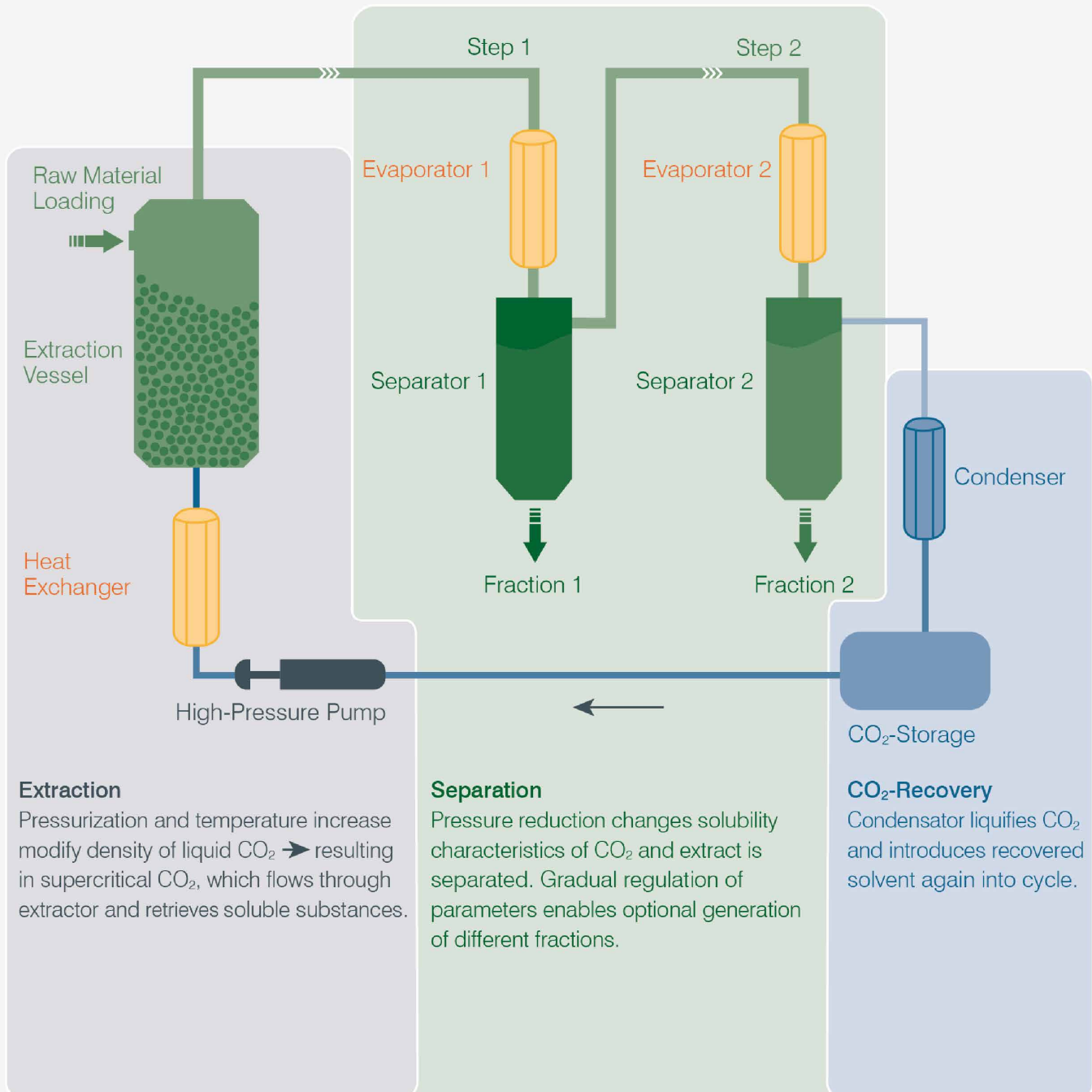


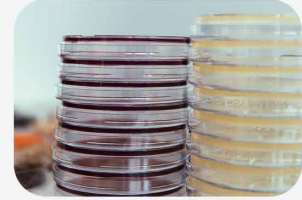
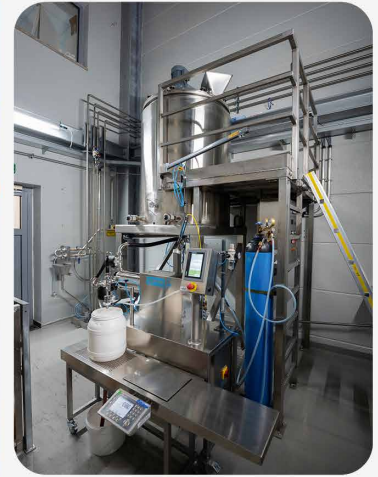
NATECO₂

Extracting the essence of nature



Technical Process Diagram





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



 Hopfenveredlung St. Johann GmbH
 Auenstrasse 18-20 · 85283 Wolnzach
 Phone Central Services +49 8442 66 0
 contact@NATECO2.de · www.NATECO2.de