



Experience the essence of nature

# Welcome to FLAVEX Naturextrakte! Years of Experience with the Best of Nature

We specialize in the gentle production of sensitive plant-based ingredients through the extraction with supercritical carbon dioxide as a natural solvent.

FLAVEX was founded in 1986. Our company has since then continuously grown and has become very successful on the international market. All products are developed, produced and certified at the company's site in Rehlingen-Siersburg/Germany near the borders of France and Benelux countries.

Our CO<sub>2</sub> extracts, which are obtained from herbs and spices, can be used as bioactive ingredients, fragrances and flavors. This way, a highly concentrated form of nature improves your cosmetics, perfumes, food supplements and food products.

## Benefit from the Quality of our CO<sub>2</sub> Extracts

CO<sub>2</sub> extracts are 100 % natural, highly concentrated and already have a good efficacy at a low dosage. Drug/extract ratio of our CO<sub>2</sub> extracts is outstanding. Therefore, your products can profit from a high content of active components.

Our gentle extraction method preserves the valuable active components as well as the sensitive top notes unfolding new fragrance effects.

CO<sub>2</sub> extracts are sterile and do not need any preservation. Many extracts can even help to stabilize your products regarding microbiology and oxidation.

Genuine CO<sub>2</sub> extracts consist only of extract components.

Our organic certified CO<sub>2</sub> extracts as well as our conventional CO<sub>2</sub> extracts meet the strict criteria of natural and organic cosmetic standards (COSMOS, NATRUE).

For a wide range we offer COSMOS certificate or letter of conformity. They are vegan, halal and kosher certified.

## Advantages of our CO<sub>2</sub> Extracts

- ✓ COSMOS certified and approved
- ✓ Certified quality: Organic, Halal and Kosher
- ✓ High stability
- ✓ Long shelf life
- ✓ Fresh authentic top notes
- ✓ Good efficacy already at low dosage levels
- ✓ Free from residual solvents
- ✓ Simple Clean Label Declaration
- ✓ Eco-friendly process



Are you looking for 100% natural and organic plant extracts for your products?  
Please contact us.



since 1986  
**FLAVEX**<sup>®</sup>  
Naturextrakte

Nordstrasse 7 · D-66780 Rehlingen · Germany  
Fon +49 68 35 91 95 0 · Fax +49 68 35 91 95 95  
info@flavex.com · www.flavex.com



# CO<sub>2</sub> Extraction Technology

## The Smart Solution

Carbon dioxide, when under pressure, is a safe solvent that does not leave any residues behind after usage. Supercritical CO<sub>2</sub> is a modern and welcomed substitute for traditional organic solvents.

### Selective and Gentle Technology

By varying the gas density and pressure or by adding ethanol as a co-solvent, we are able to adapt the dissolving power and the selectivity towards the raw material. We use high purity natural carbon dioxide with a volcanic origin from our region with a pressure up to 500 bar above the critical temperature of 31°C (88°F). This gentle process extracts sensitive active substances, flavors and fragrances under the exclusion of oxygen.

### Flexible Method for Extraordinary Quality

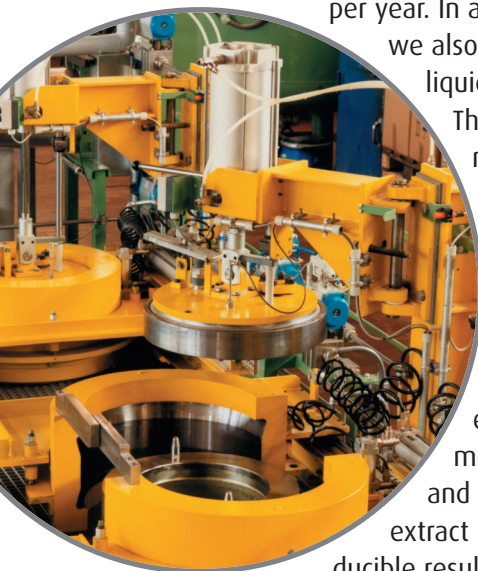
Using a single method, we can obtain from one raw material different extracts. In particular, we differentiate between selective extracts as a replacement for steam distillates and total extracts, which are comparable to hexane extracts.

Supercritical CO<sub>2</sub> extraction leads to an extraordinary quality in which sensitive components are preserved. Compared with products using other manufacturing processes, our CO<sub>2</sub> extracts impress with their natural flavor, a more fresh and authentic scent and a higher active ingredient content.

### State of the Art Extraction Plants - Tailor-Made Solutions for your Requirements

We run several extraction machines on a laboratory, pilot and production scale. Their capacity ranges from a few kilograms to several tons of input material per day with a total of about 1400 tons of botanical raw material per year. In addition to solid material, we also extract and fractionate liquids.

The FLAVEX extraction machines represent the latest state-of-the-art and are constantly being optimized, maintained regularly and reviewed by supervisory authorities. The plants are equipped with the most modern control technology and this ensures a reliable extract production and reproducible results.



### Plant Raw Materials - Top Quality Right from the Start

We source herbal materials from all continents. Identity, availability and quality are fundamental criteria for purchasing our raw materials. Moreover, we use various supply sources to ensure that our extracts are constantly available for you.

Our large raw material stock is equipped with air and humidity control regulation as well as pest monitoring. The capacity is about 700 tons of botanical raw materials. This corresponds to nearly half of the company's annual consumption. This increases delivery reliability and allows us to purchase raw materials at the best possible time. The gentle preparation of the starting material has a decisive influence on extraction efficiency and extract quality.

### Refining the Essence of Nature

The raw supercritical CO<sub>2</sub> extract is further processed by gentle physical methods like homogenisation, filtration or centrifugation. The entire production process, including analytical in-process controls through our quality management, is performed in-house through an integrated system of specialized divisions. In doing so, different departments work hand in hand. Each individual step is traceably documented.



### Quality Control - To Be on the Safe Side

Our quality control is a vital part in the production of highest quality authentic botanical extracts. FLAVEX has their own state-of-the-art laboratory as well as qualified experienced employees in order to analyse and evaluate raw materials and extracts.

