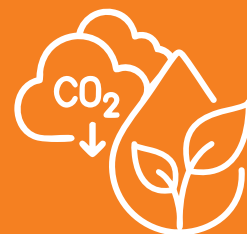


CO₂ EXTRACTION

Highly concentrated, solvent-free
extracts for versatile applications.



CO₂ Extraction – Natural purity and authentic taste

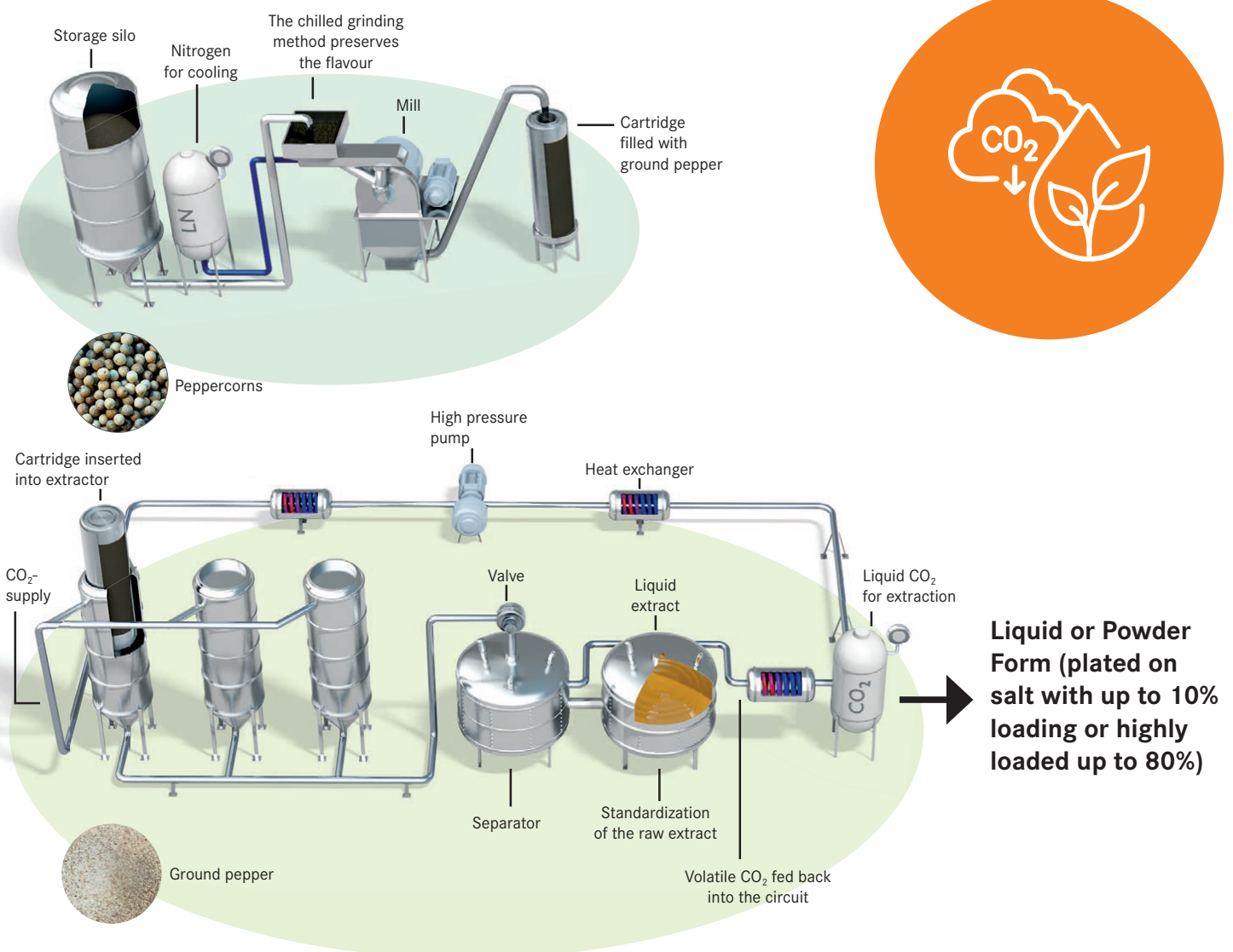
RAPS' CO₂ extraction technology produces highly concentrated, solvent-free extracts from premium herbs and spices. Using a gentle, high-pressure process with supercritical CO₂, the method preserves delicate aromas and functional components while ensuring microbiological safety and purity.

The result: natural, standardised extracts with consistent flavour intensity, low germ counts, and an authentic taste profile – completely free from solvent residues.

This state-of-the-art process allows us to deliver consistent, clean, and natural extracts that form the backbone of reliable formulations and blends. Our CO₂ extracts are ideal for sensitive applications such as sausages, sauces, baked goods, delicatessen salads, soups, cheese, and beverages. From rosemary antioxidant systems to ginger extracts for functional drinks, the technology delivers stable, clean-label flavour solutions that combine natural authenticity with technical reliability.

By transforming liquid extracts into powder form, RAPS also ensures ease of use and flexible integration into industrial processes, providing a natural, efficient alternative to conventional flavour systems and having a higher standardization than raw spices.

High-Pressure Extraction with supercritical CO₂



Key product benefits

⊕ **Gentle extraction method:**

Preserves volatile aroma components and actives for truly natural taste profiles.

⊕ **Authentic taste & complexity:**

Concentrated, authentic taste profiles across multiple applications, even at low dosages; higher taste impact in comparison to raw spices and herbs.

⊕ **Customised solutions:**

Tailored extraction parameters and blends designed precisely to your product needs.

⊕ **Standardised quality:**

Reproducible results and consistent compositions ensure uniformity in your formulation.

⊕ **No solvent residues:**

100% clean-label extracts with CO₂ as the only extraction medium.

⊕ **High microbiological safety:**

Gentle yet hygienic process ensures purity and stability, especially in comparison to raw spices.

⊕ **Sustainable by design:**

CO₂ is fully recyclable within the process, supporting both environmental and regulatory goals.



Versatile applications:



Convenience & frozen food

- Ready meals (e.g. pasta, stews, pizza, salads, chilled soups)
- Single components incl. sauces, marinades and side-packs
- Delicatessen salads, various snacking products



Sauces & condiments

- Sauces (e.g. ketchup, BBQ sauce, mayonnaise, tomato sauce)
- Dips (e.g. hummus, salsa, pesto-type products)
- Dressings & other condiments



Meat and sausage products

- Marinated or seasoned meat products
- Fillings & toppings
- Grilled sausages & specialties
- Plant-based meat alternatives



Fish products

- Marinated or seasoned fish products,
- Fillings & toppings
- Fish cakes & sticks



Dairy products

- Fresh and cream cheese, processed cheese
- Cream products (e.g. Crème fraîche, mascarpone, curd cheese)
- Dips & spreads, butter



Beverages (suitable for oil-soluble extracts)

- RTD & hot tea, coffee
- Juice & botanical drinks, smoothies



Further applications

- Pet food & feed
- Nutraceuticals
- Personal care

Highly concentrated, solvent-free extracts of superb quality that provide taste and functionality for a wide range of applications.

Discover our broad portfolio of product solutions:



CO₂ extracts, liquid, oil-soluble

- Dosage: 0,1-0,5%
- E.g.: allspice, cardamom, chili, cinnamon, coriander, ginger, nutmeg, pepper, rosemary, and many more



CO₂ extracts, powder form, oil-soluble

- Plated on salt with up to 10% loading
- Dosage: 0,3-1,5%
- E.g.: allspice, caraway, cloves, coriander, macis, pepper, thyme, and many more



CO₂ extracts, concentrated powder form (CPF), oil-soluble

- Up to 80% loading
- Dosage: 0,2-1,0%
- E.g.: bell pepper, ginger, olive oil, pepper, roasted onion, turmeric, etc.



Functional CO₂ extracts, liquid or powder form, oil-soluble

- Dosage: 0,1-0,5%
- E.g. Rapsolution Antioxidant (rosemary), Rapsolution Natural Colouring (paprika)



Various blends, liquid or powder form, oil-soluble

- Dosage: 0,1-0,5%
- E.g.: various blends of CO₂ extracts or extracts and herbs or spices (e.g. type Chai)



Herbal oil concentrates (high purity, 100% natural)

- Gentle cold pressing method to preserve natural taste profiles of the raw material
- E.g.: arugula, basil, oregano

Let's create smarter ingredients together.

At RAPS, quality begins with the source. From carefully selected raw materials and trusted suppliers to monitored development processes and collaboration with accredited laboratories, we ensure excellence at every stage. Our qualified experts guarantee the highest product safety and quality standards.

Our advanced CO₂ extraction technology allows us to deliver pure, concentrated, and natural extracts with exceptional aroma, taste, and functionality. From concept development to industrial-scale production, we combine speed, flexibility, and reliability to bring your ideas to life.

Whether developing taste-giving extracts, functional extracts, or customised blends, we provide solutions that match your application needs.

Together with our partners, we transform high-quality raw materials into premium CO₂ extracts that elevate your products and create clean-label advantages – in line with today's customer expectations.

Ready to elevate your formulations?

Contact our RAPS experts today to discover how our CO₂ extracts can bring natural innovation and added value to your product developments.

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 www.raps.com

**FRESH IDEAS.
AUTHENTIC TASTE.
FUNCTIONAL SOLUTIONS.**

