CO_2 EXTRACTION

Natural purity & authentic taste



raps.com

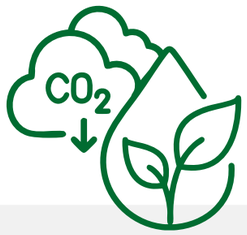
CAPTURING THE VARIETY NATURE PROVIDES

Pure. Efficient. Future-ready ingredients.

At RAPS, we unlock the full potential of herbs and spices through advanced supercritical CO_2 extraction technology. Our gentle, high-pressure process captures the most delicate aromatic and functional components while preserving the authentic character, flavour, and functionality of every botanical.

The result is highly concentrated extracts with true-to-nature taste, consistent flavour intensity, low germ counts, and maximum purity – clean-label solutions produced with exceptional resource efficiency and completely free from solvent residues.

Available in both liquid and powder form, our extracts ensure easy handling and flexible integration into industrial applications. They offer a natural, efficient alternative to conventional flavour systems while delivering a higher level of standardisation than raw spices and herbs.



High-pressure extraction with supercritical CO_2

Our state-of-the-art process allows us to deliver consistent, clean and natural extracts that form the backbone of reliable formulations and blends.

- ✓ Supercritical CO_2 as extraction medium
- ✓ Gentle process to preserve volatile components
- ✓ Closed-loop system (CO_2 recycled)
- ✓ Liquid & powder formats available

Versatile applications

From savoury foods and meat products to dairy, beverages and beyond, RAPS CO_2 extracts bring the authentic character of herbs and spices into a wide range of applications. Their high concentration, consistent quality and true-to-nature sensory profile enable precise and efficient formulation while helping manufacturers achieve reliable taste performance from batch to batch. Available in liquid and powder formats, our extracts can be used as stand-alone ingredients or integrated into seasoning systems and customised ingredient solutions – offering flexibility for different processes, product concepts and application requirements.



Sauces, dips & condiments

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



Meat & poultry, sausage products

- Marinated or seasoned meat products
- Sausages, grilled sausages & specialities
- Fillings, toppings & sauces for meat & poultry
- Plant-based meat alternatives & hybrid meat products



Fish & seafood products

- Marinated or seasoned fish & seafood products
- Fillings, toppings & sauces for fish & seafood
- Fish cakes, sticks & other snacking formats
- Plant-based alternatives



Convenience & frozen food

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



Dairy products

- Fresh cheese, cream cheese & curd cheese
- Processed cheese
- Dairy-based dips & spreads
- Butter & cream products (e.g. crème fraîche, mascarpone, herb butter)



Beverages & tea

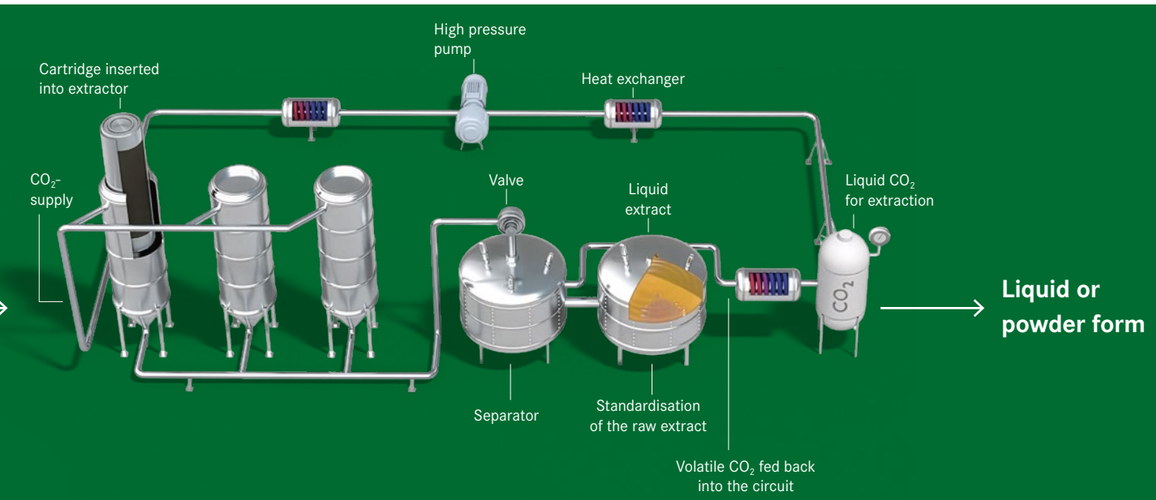
- Ready-to-drink & hot tea, coffee
- Juice & botanical drinks
- Smoothies & shots



Further applications

- Pet food & feed
- Nutraceuticals
- Personal care
- and many more





Broad & flexible portfolio

Discover our broad portfolio of clean-label product solutions – from rosemary antioxidant systems to ginger extracts – combining natural authenticity with technical reliability.

Our specialities

- ✓ Organic-suitable & certified CO_2 extracts
- ✓ High-purity / high-potency variants & oleoresins
- ✓ Tailor-made extract combinations & blends



CO_2 extracts, liquid, oil-/water-soluble
Dosage: 0,1 - 0,5 %

Example:
Allspice, cardamom, cinnamon, coriander, ginger, nutmeg, pepper, rosemary and more

Selective raw materials such as ginger as water-soluble solution



CO_2 extracts, powder form
Plated on salt (or other carriers) with up to 15 % loading
Dosage: 0,3 - 1,5 %

Example:
Allspice, caraway, cloves, coriander, mace, pepper, thyme and more



Functional extracts, liquid or powder form, oil-soluble, conventional/ solvent-based
Dosage: 0,1 - 1,5 %

Example:
Rapsolution Antioxidant (rosemary), Rapsolution Natural Colouring (paprika, turmeric), chili (pungency control)



Custom blends, liquid or powder form, oil-soluble
Dosage: 0,1 - 0,5 %

Example:
Various blends of CO_2 extracts, conventional extracts or extracts and herbs or spices (e.g. type Chai), custom solutions



Herbal oil concentrates (high purity, 100 % natural)
Gentle cold pressing method to preserve natural taste profiles of the raw material

Example:
Arugula, basil, oregano

KEY PRODUCT BENEFITS

Gentle extraction method

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

Standardised quality

Reproducible results and consistent compositions ensure uniformity in your formulation; excellent solubility and dispersion in end-applications (mainly oil-soluble).

High microbiological safety

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

Authentic taste & complexity

Concentrated, true-to-nature taste profiles with a strong sensory impact even at low dosages; higher flavour intensity compared to raw spices and herbs; preserving more volatile aromatic components than solvent-based extraction methods.

No solvent residues

100% clean-label extracts with CO_2 as the only extraction medium.

Customised solutions

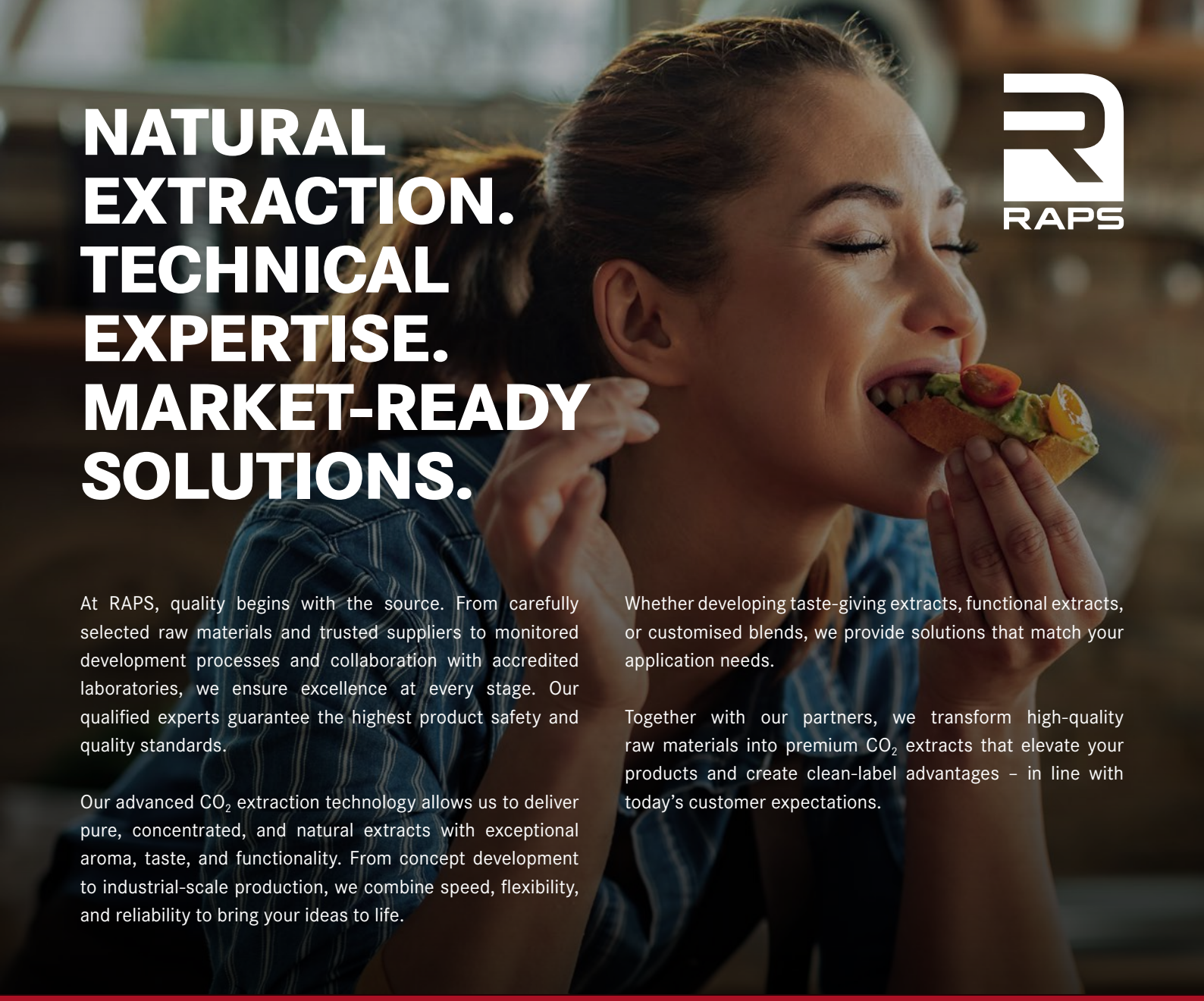
Tailored extraction parameters and blends designed precisely to your product needs.

Sustainable by design

CO_2 is fully recyclable within the process, supporting both environmental and regulatory goals.

High efficiency

Efficient dosing and cost-in-use advantages as well as extended shelf-life compared to raw spices.



NATURAL EXTRACTION. TECHNICAL EXPERTISE. MARKET-READY SOLUTIONS.

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 CO_2 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 CO_2 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 CO_2 extracts can bring natural innovation and added value to your product developments.

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