

FREY&LAU®



*explore
your
senses*

A modern family-run company

OUR GUIDING PRINCIPLES

With ongoing investment FREY&LAU will continue to expand its reputation as a successful, creative and innovative company in the coming decades.



At FREY&LAU we live out working and acting jointly on a daily basis and in particular serve our customers. The personal commitment of employees and managers, short decision-making processes and the highest demands of all quality standards characterise us.

Competence & innovation

As a traditional company with wide-ranging perspectives FREY&LAU combines expertise gained over decades with continuous ongoing development. Our focus is always on the highest quality standards and product safety in production, development and creation.

Sustainability

Responsible, sustainable activity characterises our decisions on a daily basis as much as all of the decisions relating to long-term planning and investment. This includes healthy work-life balance and the environmentally friendly handling of resources such as water, air and energy.

Management

FREY&LAU is now in its fourth generation of family management. For over 10 years the siblings Dr Maja Zippel and Claas Nendel have led the company and provide closeness, stability and innovative perspectives.

What do we do?



History

- 1836** Pharmacist Heinrich Zeise converts his "Elephant Pharmacy" into a steam factory for essential oils, essences and pharmaceutical tinctures
- 1904** Johannes Frey and Hinrich Lau take over the factory
- 1912** Development and production of fragrances
- 1970** Development and production of flavours
- 1981** Commissioning of a tailor-made rectification system for essential oils
- 1994** New building in Henstedt-Ulzburg for future technological and business expansion
- 1998** Founding of the division trading in aroma chemicals and fragrances
- 2006** Commissioning of an additional vanilla extraction system for conventional, organic (BIO) and Fair Trade vanilla extracts
- 2009** Manufacturing microencapsulated flavours via extrusion technology
- 2013** Expanding our process technology to include fluid bed granulation and spray drying technology micro-encapsulated flavours
- 2017** Presentation of the new corporate design
- 2018** Commissioning of a high-performance, rectification device for essential oils and the new GMP division

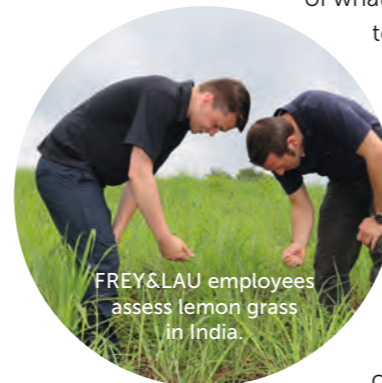
Essential oils

SOURCING, PHARMACEUTICAL AND RECTIFICATION – ALL FROM A SINGLE SOURCE

"Made in Germany" quality – we monitor the complete supply chain from the plant to the fractionated oil and thus achieve the highest quality standards

Sourcing

Product safety starts in the cultivation site and we travel around the world to buy raw essential oils! Responsible and cooperative partnership with suppliers is at the heart of what we do. This is how we are able to ensure reliable supplier relationships and ensure that the products are permanently available. The joint establishment of quality management systems, regular auditing and the qualification and certification of production systems locally with and at our suppliers' locations ensure product safety over the long term.



Oral care

We process our essential oils into unique, natural and fresh bases that act as raw materials for our oral care products. We test and assess aromas using the most recent application technologies. We conduct comprehensive sensory analyses in customer-specific basic recipes. We supply branded manufacturers and producers of trademarked products from the oral care industry globally.

Feed supplements

Good things for animals. We produce key chemicals and essential oils to the GMP+ standard. These feed supplements have a beneficial effect as a result of their antimicrobial characteristics and additional sensory benefits on improving performance, health conditions, ability to be digested and ammonia excretion.



Rectification

Powerful technologies for the finest essential oils. FREY&LAU has rectification systems that are unique around the world and these were developed in-house to ensure that oils are handled carefully.

- Rectification, concentration
- Fractioning: Isolation of key chemicals and unwanted substances
- Purification of essential oils
- Strengthening and optimising fragrances and flavours
- Ensuring consistent quality
- Creation of special essential oil components
- GMP-certified manufacturing of pharmaceutical ingredient characteristics

Pharmaceuticals

Nature as a healer. The healing power of essential oils has been understood for centuries. The natural ingredients of oils have been used up to the present day for various medicines. As part of our permission to manufacture under Section §13 of the German Medicines Act (AMG), we produce on behalf of our customers under GMP I and II and according to our EGST line, offer eucalyptus oil GMP, turpentine oil GMP, peppermint oil GMP and various other ingredients.

In 2018 we completed another important innovation step: the set up and commissioning of the new high-performance rectification system.





Fragrances

FROM THE INITIAL IDEA TO THE FINISHED FRAGRANCE

Our fragrance compositions characterise emotions, experiences and memories.

We prepare your successful products. Our perfumers create fragrances to your requirements including market observations and the latest trends. The final products therefore awaken wonderful emotions, become experiences with a pleasant scent and remain in the consumers' memory.

Fragrance design centre

In our modern fragrance design centre perfumers, evaluators and application technicians work hand-in-hand. The special expertise of these fragrance specialists is found in all of our perfume oil compositions. Our fragrances are comprehensively tested for their individual ability to be used, stability and authenticity in detailed application experiments.

Fragrances in use

Fragrances are highly complex compounds that have different olfactory effects depending on their bases as well as how they are used. Alcoholic solutions such as room fragrances and eau de toilettes, emulsions such as creams and candles or dry granulates such as washing powder place different demands on the fragrance recipes. Our expertise is in the development of fragrances for your specific application.

Natural perfume oils

Natural cosmetics are the fastest growing segment in the cosmetics market. FREY&LAU has been developing creative and authentic fragrances for more than 15 years. We fall back on our natural raw materials, extracts and essential oils for this. We offer such certification standards as NaTrue, Cosmos and BDIH.



New developments are worked into applications in our sensory centre and checked for olfactory characteristics in fragrance cabins.



Pouring candles in the application technology to check the stability of fragrance components in wax.



Flavours

A QUESTION OF GOOD TASTE

Discover the individual variety and innovative technologies of our flavours.

Our flavours give your products an individual character and a unique note. Based on our excellent knowledge we produce intriguing liquid and solid flavours for different applications.

Flavour design centre

With a strong team of creative flavour experts, highly competent application technologists and market experts, we develop fashionable flavour experiences for our customers. Our innovative flavour technologies cover such processes as fluid bed granulation, extrusion and spray drying.

Aromas in use

Each application places special demands on the flavours that will be used. From heat stability in baked goods and good solubility in tea, to the simple processing in the supply chain – customer demands for our developers are varied. Even in the development phase our flavours are comprehensively checked to match the individual requirements and to perfect the taste of your product.

Vanilla extraction

On our extraction systems we create vanilla extracts in conventional, organic (BIO), NOP or Fair Trade quality.



Development of flavour samples in our comprehensively equipped application technology



Raw materials

FRAGRANCES & FLAVOURINGS – THE BASIS OF OUR ACTIVITY (AND TRADE)

As professional developers of flavours and fragrances, we know the special requirements of our customers.

Our successful trade in raw materials has a reliable foundation. We have access to a global selection of qualified and reliable supply sources, efficient supply chain management with regular audits and visits to manufacturers, as well as consistent quality control of all raw materials on offer in-house. Our comprehensive inventories ensure prompt delivery to our partners at the best possible quality. As a result of our experience over many years in developing flavours and fragrances, we know the special requirements.



Quality and safety

WELL SUPPORTED ON ALL ISSUES RELATING TO QUALITY

Our customer-oriented, quality service is an expression of the high quality claim that goes throughout our company from sourcing via product development to manufacturing and delivery.

Analytics

In our highly modern laboratory we conduct GC, GC-MS and isotope analyses as well as other extensive analyses in order to fulfil the quality and safety requirements.

Regulatory

Our strength is the predictive implementation of new regulatory requirements. This is supported by our involvement in the aroma association DVRH (national IFRA association),

the German aroma association DVAI and the European Federation of Essential Oils EFEO. Raw materials as well as new and ongoing developments of products are checked for their application in our development departments. We see the use of exclusively safe ingredients in our products as a matter of course. The comprehensive and active registration of raw materials under REACH, transparent hazardous material communication through labelling and meaningful safety data sheets are key elements of our quality policy.

Quality management & certificates

Our integrated quality management system is orientated to all of the relevant industry standards. The most common standards are:

- GMP (a standard for pharmaceutical ingredients)
- FSSC 22000 (food industry certification)
- GMP+ (animal feed industry certification)
- BIO (European Organic Regulations)
- Natural cosmetics (incl. Cosmos, EcoCert)
- Kosher



Technologies

INNOVATIVE FLAVOUR GRANULATES

Our developments are always the right choice for application in your products.

CAPSO® extrusion technology

Our flavour extrudates are found under the product names CAPSOPEARL®, CAPSOLEAF®, CAPSOSTICK® and CAPSOFLAKE®. The flavour granulate can be used reliably and in versatile ways. The key advantages of the granulates produced using the extrusion process are long expiry dates, very good dissolving characteristics and thermal stability. The different shapes and colours permit wide-ranging uses in a variety of applications, such as tea, comprimates or baked goods and pastries.

CAPSOGRAN® fluid bed granulation

Using a dual material nozzle, solid suspensions are sprayed in an aerosol. The high heat exchange vaporises the solvent instantly, thus creating a flavour granulate. By continuing this process, particles are built up in layers. The protective process used in the fluid bed procedure permits

particularly high loads even with sensitive, volatile flavours. Such parameters as grain size and remaining humidity can be targeted specifically in this procedure.

CAPSOSPRAY® spray drying

The spray drying process is used to make fine to slightly agglomerated powder with long expiry dates. A suspension is sprayed into a fine aerosol causing the solvent to vaporise. The direct cooling of the powder makes this process particularly gentle. It is ideally suited to high flavour loadings and sensitive components.

A selection of colours and forms of our flavour granulates.



Sustainability

SUCCESSFULLY LIVED OUT ON A DAILY BASIS

For us sustainability is not just an empty term but rather is something that we actively implement in all areas.

Purchasing and sourcing

We build on long-term characteristics and know our footprint because we record our CO₂ emissions when cultivating plants to obtain essential oils. This also includes training and developing suppliers on the appropriate safety and hygiene standards.

Employees and society

We actively promote healthy work-life balance and the health of our employees. Company sports and events strengthens the feeling of togetherness. Initial, additional and ongoing training are essential for the long-term existence of the company. We invest in a targeted way in ongoing training and are involved in various associations for training and research. As a recognised training organisation, we train our junior employees ourselves.

Energy and development

All premises have an intelligent light management system. This detects whether there are people in the room and controls the lighting to match the external light penetration. Heat recovery and the use of modern condensing and steam boilers with higher efficiency rates protect natural resources.

Nature and the environment

New environmental protection standards for exhaust air ensure the constant monitoring of values and efficient catalytic cleaning. Waste water passes through an oil separation system in order to exclude contamination. External testing institutions and authorities regularly check the water quality. The cleaning of tanks, mixing containers and systems takes place using water vapour and without the use of solvents or detergents.





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