

# EVONIK

## Chemistry the driving force behind Healthy & Sustainable Food



Active in more than 100 countries around the world, Evonik is one of the world leaders in specialty chemicals. Leading beyond chemistry to create innovative, profitable and sustainable solutions for their customers, Evonik is grouped in five divisions — Nutrition & Care, Performance Materials, Specialty Additives, Smart Materials and Technology & Infrastructure.

Constantly developing and expanding its capabilities to meet its customers' expectations, Evonik helps to make modern lives more comfortable, healthier, and more sustainable every day.

First established in Singapore in 1969, Evonik Singapore has currently grown to employ more than 800 personnel here. Local activities had started out as sales, and has since diversified to include production and research. Today, it is the regional headquarters and innovation hub. Producing and supplying regionally, Evonik Singapore is constantly expanding their presence to strengthen the competitiveness of their customers through research and applications.

### DEEP DIVE INTO EVONIK'S NUTRITION & CARE DIVISION

Evonik's Nutrition & Care division revolves around human wellbeing — health and quality of life. Most products are used directly on humans or animals.

One of Evonik's three growth divisions, its business lines are health care, care solutions, and animal nutrition. They are focused on long-term megatrends such as progress in medicine, the aging population, the expanding middle class and, above all, sustainability.

Sustainability is a guiding business principle for Nutrition & Care, specifically fighting climate change, driving circularity, ensuring health and wellbeing, and safeguarding ecosystems.

Evonik also aims to address structural market trends within planetary boundaries, offering effective and accessible health-care, and through climate- and nature-positive food systems.

### INNOVATION GROWTH FIELDS & EVONIK'S ASIA RESEARCH HUB IN SINGAPORE

Evonik's research and development activities are aligned with six innovation

growth fields, three of which are related to healthcare and wellbeing — sustainable nutrition, healthcare solutions, and advanced food ingredients.

Another example of Evonik's drive for innovation is their investment in the Tissue Engineering team. Housed in the Evonik Asia Research Hub Singapore, its research on cell and tissue engineering has facilitated and progressed the development of products that address unmet needs in regenerative medicine. This includes animal-free biomaterials and cell culture ingredients, as well as biomimetic in vitro models that can be applied for testing and as grafts.

### VALUING SYNERGY TO ENCOURAGE INNOVATION AND SUSTAINABILITY

The organisation's portfolio most efficiently utilizes ingredients, technological platforms and asset sharing to create innovative and sustainable solutions quickly.

With their Nutrition & Care division, Evonik holds most market-leading positions due to its ability to understand complex systems. Evonik's thinking goes beyond chemistry, working instead on interfaces between chemistry, biotechnology, medicine, nutrition, physiology and engineering, enabling the organisation to develop holistic solutions, which the world urgently needs in this new, disrupted healthcare system.

Evonik has also developed Next Generation solutions to address sustainability



focus areas that are directly linked to United Nations Sustainable Development Goals.

**Fight Climate Change** – Evonik's Precision Livestock Farming offers higher efficiency in feed material use, lower emission of nitrogen to air and water, and lower antibiotic interventions and better animal health and wellbeing.

**Drive Circularity** – As an alternative DHA and EPA source, Evonik's Veramaris Algal Oil reduces overfishing, produces zero waste and uses 100% renewable energy in its manufacturing process.

**Safeguard Ecosystems** – Evonik's Biosurfactants Rhamnolipids from a complex fermentation process enable cleaning with performance and reduced skin irritation. Based on deforestation-free raw materials, it uses 100% renewable energy for production.

**Ensure Health and Wellbeing** – As a global development partner and solutions provider for delivery systems for effective drugs and vaccinations, Evonik is a pioneer in the Lipid Nano Particle (LNP) field for mRNA technology.

## SCIENCE AT THE CORE OF HEALTHY FOOD PRODUCTION

### POTASSIUM DERIVATIVES

Potassium is a vital mineral that controls important cell functions. The right dose of potassium helps maintain normal blood pressure and so reduces the risk of heart disease. Most people get half their recommended intake a day while consuming 2-3 times their recommended daily sodium intake. Evonik's potassium derivatives resolve this imbalance, by helping them achieve their potassium intake while reducing sodium intake. As a leavening agent, Potassium Bicarbonate is a healthy alternative to sodium content, to help customers to achieve an improved diet and lifestyle.

## SUSTAINABLE FOOD SOLUTIONS

### ANIMAL FEED

Housed on Jurong Island, Singapore, Evonik's world-scale production complexes for essential amino acid DL-me-



thionine supply about 300,000 metric tons of MetAMINO® to poultry, swine and aquaculture businesses worldwide. Worth a combined investment of about 1 billion euros, these two complexes make up the largest methionine complex in the world within the Evonik network.

The growing consumer affluence in Asia supports the increasing demand for animal protein and producers are focused on more sustainable production of meat, eggs, milk, and fish. Evonik's MetAMINO® plays a key role to support these trends by providing innovative and sustainable solutions in feed additives, and digital software concepts for efficient farm management; making substantial contributions to a holistic approach to healthy animal nutrition and sustainable animal husbandry, while creating added value for its customers.

Audited and certified by TÜV Rheinland, the comparative life cycle assessment has further demonstrated the ecological advantages of Evonik's feed amino acids and feeding concepts compared with common animal nutrition practices.

## STRONG PARTNERSHIPS TO PAVE THE WAY FORWARD

Serving more than 1,000 life science customers worldwide, Evonik Health Care works with 90% of the world's top 50 pharmaceutical companies by enabling development through the provision of cell culture, complex par-

enters, and active pharmaceutical ingredient and intermediaries. Being a worldwide, cross-functional network, it allows for agile, efficient performance ensuring that its stakeholders receive the support they need.

In the first half of 2021, Evonik helped to accelerate the production of Covid-19 vaccines by delivering first batches of the urgently needed lipids for the mRNA-based vaccine to BioNTech months earlier than planned. A few months later, Evonik signed a research collaboration with Stanford University on a technology to deliver mRNA to tissues and organs that goes beyond the capabilities of LNPs. This polymer-based platform complements Evonik's existing portfolio of lipid-based drug delivery, including LNPs.

Evonik has been the recipient of notable accolades over the past years for their excellent work including being the 2020 recipient of the Governor's Bioscience Award (recognition for making significant contributions to the Nebraska bioscience industry); the 2020 recipient of EuroCham Singapore Sustainability Award (Circular Economy) (recognition for exceptional sustainability efforts in Singapore and the region). In 2021, Evonik was voted as "Top CMO Performer" for Capabilities, Compatibility, Expertise, Quality, Reliability and Service by pharmaceutical companies in Life Science Leader CMO Leadership Awards.



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