

## Evonik launches plant-based squalene to boost vaccine efficacy

- Sustainable alternative to squalene extracted from shark liver oil
- Adjuvant component for parenteral drug delivery applications
- Increases share of next-generation solutions at Evonik

**Essen, Germany.** Evonik has launched a non-animal-derived squalene suitable for vaccines and other pharmaceutical applications. PhytoSquene® is the first known amaranth oil-derived squalene on the market for use in adjuvants in parenteral dosage forms. It meets the demand for a secure commercial supply of non-animal-derived squalene. Non-GMP samples of PhytoSquene® are available immediately with GMP quality to follow in 2023.

With the launch of PhytoSquene®, Evonik offers an alternative to animal-derived squalene, which for pharmaceutical applications is typically sourced from shark liver oil. Preserving biodiversity and ecosystems by reducing the need for animal-derived products is an important focus for Evonik and its life sciences division, Nutrition & Care.

Nutrition & Care has formulated a clear vision to transform more than 70 percent of its portfolio in terms of revenue to next-generation solutions by 2032. Next-generation solutions are based on a thorough portfolio assessment and represent a superior sustainability benefit.

“It is alarming that biodiversity across our planet is declining at a rapid rate. That’s why we are excited about empowering our customers to create products that preserve biodiversity and, at the same time, deliver high-quality treatments to patients,” said Thomas Riermeier, head of the Health Care business line at Evonik.

PhytoSquene® is made from the oil of amaranth (*Amaranthus caudatus*) which is a herbaceous plant cultivated in many parts of

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the world. Being plant derived, PhytoSquene® ensures batch-to-batch consistency, quality and purity. It is compliant with European Pharmacopoeia (Ph. Eur.) specifications and there is no risk of pathogenic transmission. PhytoSquene® is also a solution for patients who cannot use animal-derived products for cultural or religious reasons.

PhytoSquene® is the latest of Evonik's innovations to provide the market with sustainable, non-animal-derived solutions. Earlier this year, Evonik launched the pharma-grade, plant-derived cholesterol PhytoChol®.

Squalene is a natural organic compound that is used as a component in some adjuvant systems. Adjuvants are additives that boost the body's immune response to the active ingredient in a vaccine. They reduce the amount of active ingredient needed, thus making it faster and easier to scale vaccine production, and reducing the chance of any side effects in patients.

As a partner to the pharmaceutical industry, Evonik Health Care has been a leader in advanced drug delivery for decades. It supports pharmaceutical companies worldwide with comprehensive services for developing and manufacturing complex parenteral and oral drug products. This includes pharmaceutical excipients such as polymers and lipids, formulation development and the manufacture of clinical samples, as well as commercial drug products.

### **More information**

<https://healthcare.evonik.com/en/drugdelivery/parenteral-drug-delivery/parenteral-excipients/plant-based-squalene>

### **Company information**

Evonik is one of the world leaders in specialty chemicals. The company is active in more than 100 countries around the world and generated sales of €15 billion and an operating profit (adjusted EBITDA) of €2.38 billion in 2021. Evonik goes far beyond chemistry to create innovative, profitable and sustainable solutions for customers. About 33,000 employees work together for a common purpose: We want to improve life today and tomorrow.

### **About Nutrition & Care**

The focus of the business of the Nutrition & Care division is on health and quality of life. It develops differentiated solutions for active pharmaceutical ingredients,

medical devices, nutrition for humans and animals, personal care, cosmetics, and household cleaning. In these resilient end markets, the division generated sales of €3.56 billion in 2021 with about 5,300 employees.

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