

Introducing The Next Generation of Sustainable Cosmetic Oils

Fermentation-derived oil designed for
high-performance skin and hair formulations



Product Overview

CLEANOil™ is a **biotech-derived emollient oil produced via proprietary yeast fermentation**, offering cosmetic formulators a **sustainable, high-performance alternative** to traditional plant oils.

Developed using Clean Food Group's **CLEAN OilCell™ platform**, the ingredient is produced through **yeast fermentation powered by upcycled food waste such as bread waste**, transforming surplus food into high-value cosmetic ingredients.

The result is a **circular, fermentation-derived oil** delivering **excellent sensory performance, formulation versatility and supply chain resilience** for next-generation beauty formulations.

CLEANOil™ has been **formulation-validated with THG LABS**, supporting its readiness for real-world beauty product development and manufacturing.

"Innovation has the greatest impact when it moves beyond the lab and onto the shelf. THG LABS formulation expertise has helped take Clean Food Group's biotech breakthrough and prove it's commercially viable with real-world product development and scalable manufacturing for the beauty and personal care industry."

THG / LABS

Key Advantages for Beauty Brands

High Performance Skin Feel

- Lightweight emollient texture
- Smooth glide and spreadability
- Non-greasy, fast-absorbing finish
- Silky after-feel

Formulation Versatility

Suitable for a wide range of cosmetic formulations including:

- Serums
- Moisturisers
- Facial oils
- Hair oils
- Conditioners
- Balms and anhydrous formulations

Compatible with **O/W and W/O emulsions**.

Cosmetic benefits

CLEANOil™ is naturally rich in vitamins and Omega-6 and Omega-7 fatty acids, helping to nourish, moisturise and support healthy-looking skin.

Stable and Consistent Ingredient

- Controlled fermentation production
- Consistent quality batch-to-batch
- Excellent oxidative stability

Sustainable by Design

CLEANOil™ is produced through **precision fermentation using yeast** and surplus bread waste as a feedstock, reducing reliance on conventional oilseed agriculture.

Key sustainability advantages include:

- Reduced dependence on agricultural land
- No deforestation-linked crop production
- Controlled fermentation production
- Consistent year-round supply

CLEANOil™ has undergone an independently validated Life Cycle Assessment, confirming up to >90% reduction in GHG emissions vs agricultural oils.



Upcycled Food Waste
Powered by upcycled
food waste



Climate Impact
>90% reduction in GHG
emissions vs agricultural oils



100,000L+
Validated at
commercial scale

Fatty Acid Profile

CLEANOil™ contains a balanced fatty acid composition that supports excellent emollient performance.

FATTY ACID	TYPICAL PROFILE
Palmitic	22%
Palmitoleic	6%
Oleic	60%
Linoleic	8%
Stearic	3%

Typical values. Full technical specification available upon request.

Benchmark Sensory Comparison

PROPERTY	CLEANOil™	OLIVE OIL	JOJOBA OIL
Skin Feel	Silky	Rich	Light
Absorption	Fast	Medium	Fast
Greasiness	Low	Medium	Low
Stability	High	Medium	High

CLEANOil™ offers **comparable sensory performance to widely used cosmetic oils** while enabling **fermentation-derived sustainability advantages**.

Applications

CLEANOil™ is suitable for use across a wide range of **beauty and personal care products**.

Skin Care

- Facial oils
- Moisturisers
- Anti-ageing formulations
- Serums

Hair Care

- Hair oils
- Conditioners
- Leave-in treatments

Personal Care

- Lip care
- Cleansing balms
- Body oils



Product Information

PARAMETER	DETAILS
Origin	Yeast fermentation
Appearance	Clear to pale yellow oil
Odour	Mild
Solubility	Oil soluble
INCI	Available upon request

The Benefits of Fermentation

Biotechnology is rapidly emerging as a **new frontier for sustainable cosmetic ingredients**.

CLEANOil™ enables brands to:

- Reduce reliance on traditional agricultural oils
- Access high-performance bio-based ingredients
- Strengthen sustainability storytelling
- Innovate with next-generation biotechnology

About Clean Food Group

Clean Food Group is a UK biotechnology company developing sustainable oils and fats through fermentation technology. Its proprietary **CLEAN OilCell™** platform enables the production of oils and butters with tailored fatty acid and triglyceride profiles, supporting the development of next-generation ingredients for cosmetic applications.

By converting low-value feedstocks into high-performance oils, Clean Food Group's technology provides a more sustainable and resilient alternative to conventional agricultural oils, enabling innovative ingredients for use across cosmetics, food, and other industrial sectors.

Samples and Technical Support

CLEANOil™ is available for:

- R&D evaluation samples
- Formulation testing
- Pilot production
- Commercial supply

For samples and technical documentation please contact:

Clean Food Group

info@cleanfood.group
cleanfood.group

POWERED BY **CLEAN OilCell™** TECHNOLOGY

cleanbeauty.bio

