



PASSIFLORA

UNLOCKING SUPERIOR HEALTH BENEFITS FOR INNOVATIVE
SLEEP AND RELAXATION PRODUCTS

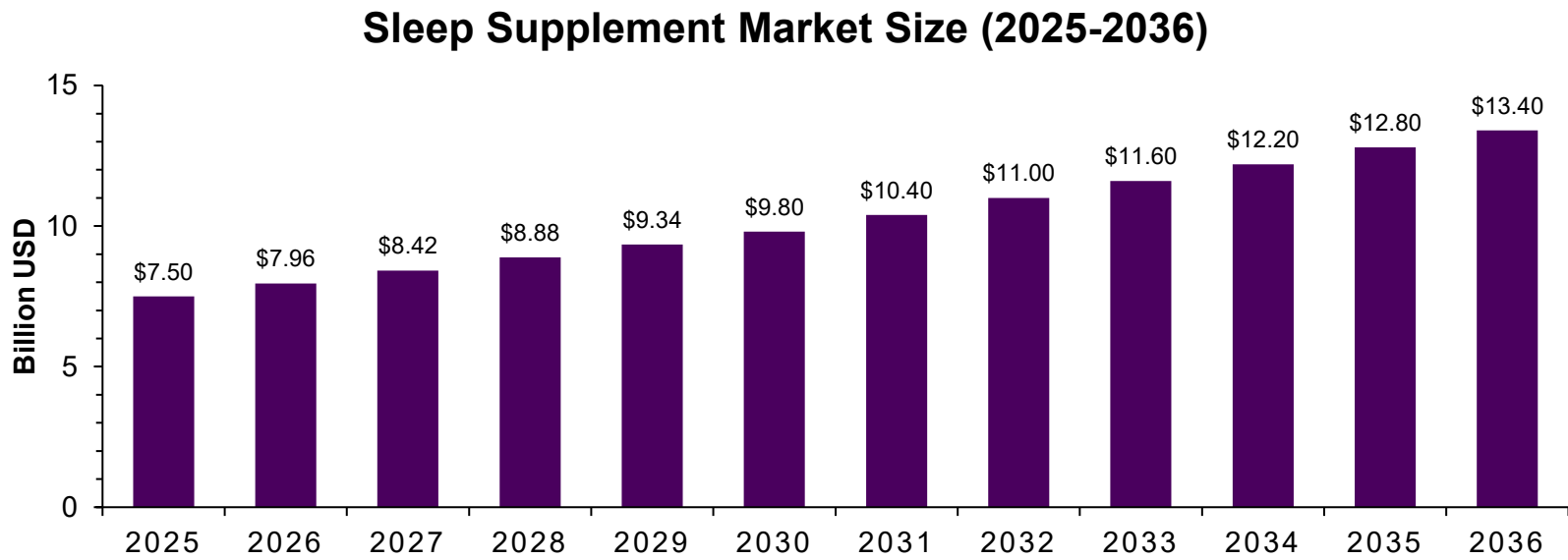
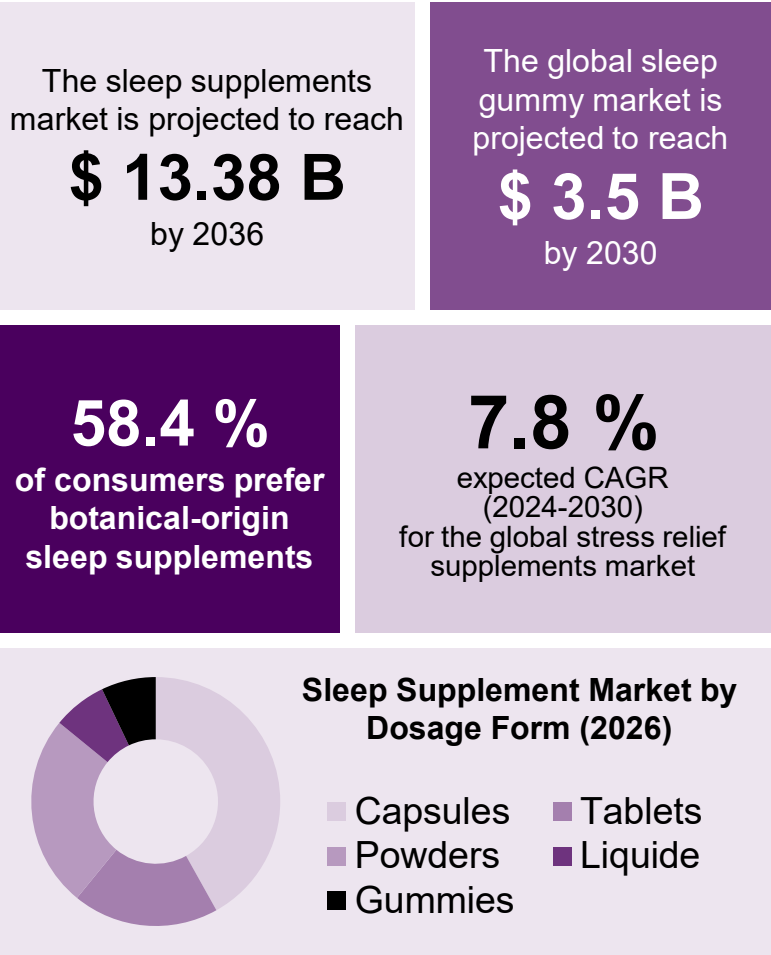
2026

EVANIUM

OPTISOLV[®]
TECHNOLOGY

THE MARKET OPPORTUNITY

Demand is rising for innovative delivery formats and botanical ingredients in the booming sleep and relaxation supplements market



- Consumers are increasingly choosing **natural, plant-based sleep aids over synthetic options** due to perceived safety and gentleness, with rising demand for clean-label products, prioritizing transparency and simple ingredient lists
- **Multi-functional blends** are growing as consumers seek combined sleep, relaxation, and stress support in one product (e.g., in combination with melatonin)
- **Innovative dosage forms like gummies, stickpacks, and RTD liquids** are expanding as consumers look for more convenient and enjoyable ways to consume sleep and relaxation products

SOURCES: [Passiflora Incarnata Flower Extract Market Size 2034](#) | [Global Passion Flower Extracts Market Growth 2033](#) | [Passion Flower Extracts Market Size & Trends 2025](#) | [Stress Relief Supplements Market Report 2030](#) | [Passiflora Incarnata Extract Market Forecast 2026-2033](#) | [Sleep Supplement Market 2026-2026](#) | [Global Stress Relief Supplements Market](#) | [Insomnia Supplements Market \(2025 - 2033\)](#) | [Sleep Gummy Market](#) | [Stress Relief Supplements Market](#) | [Sleep Aid Beverage Market](#) | [Gummy Supplement Market \(2024-2031\)](#) | [The Sleep Supplement Market \(2026-2036\)](#)

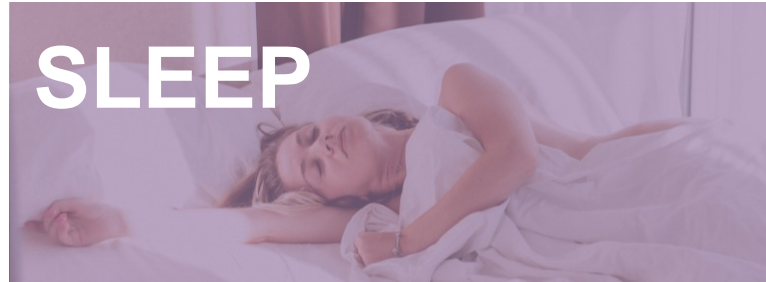
Passiflora is a well-tolerated, effective ingredient that helps reduce stress and anxiety levels and improves sleep quality



Passiflora **reduced subjective stress** levels** (Perceived Stress Scale: -27.9 % against baseline), **improved general psychological health**** (GHQ-12 score: -35.9 % against baseline), and reduced **serum cortisol levels*** (-17.2 % against baseline) within 30 days ¹

* p < 0.05 compared to respective baseline
** p < 0.05 compared to respective placebo

(1) Harit, M K et al., *Cureus*, 2024.



Passiflora herb **improves subjective sleep quality**** within 7 days, validated by polysomnography ($t(40) = 2.70$, $p < 0.01$) ²

Passiflora **prolonged total sleep time** ($+23.05 \pm 54.26$ min Passiflora vs. -0.16 ± 53.12 min placebo) in adults with insomnia disorder** within 2 weeks ³

(2) Ngan, A and Conduit, R, *Phytotherapy Research*, 2011.
(3) Lee J, et al., *International Clinical Psychopharmacology*, 2020.

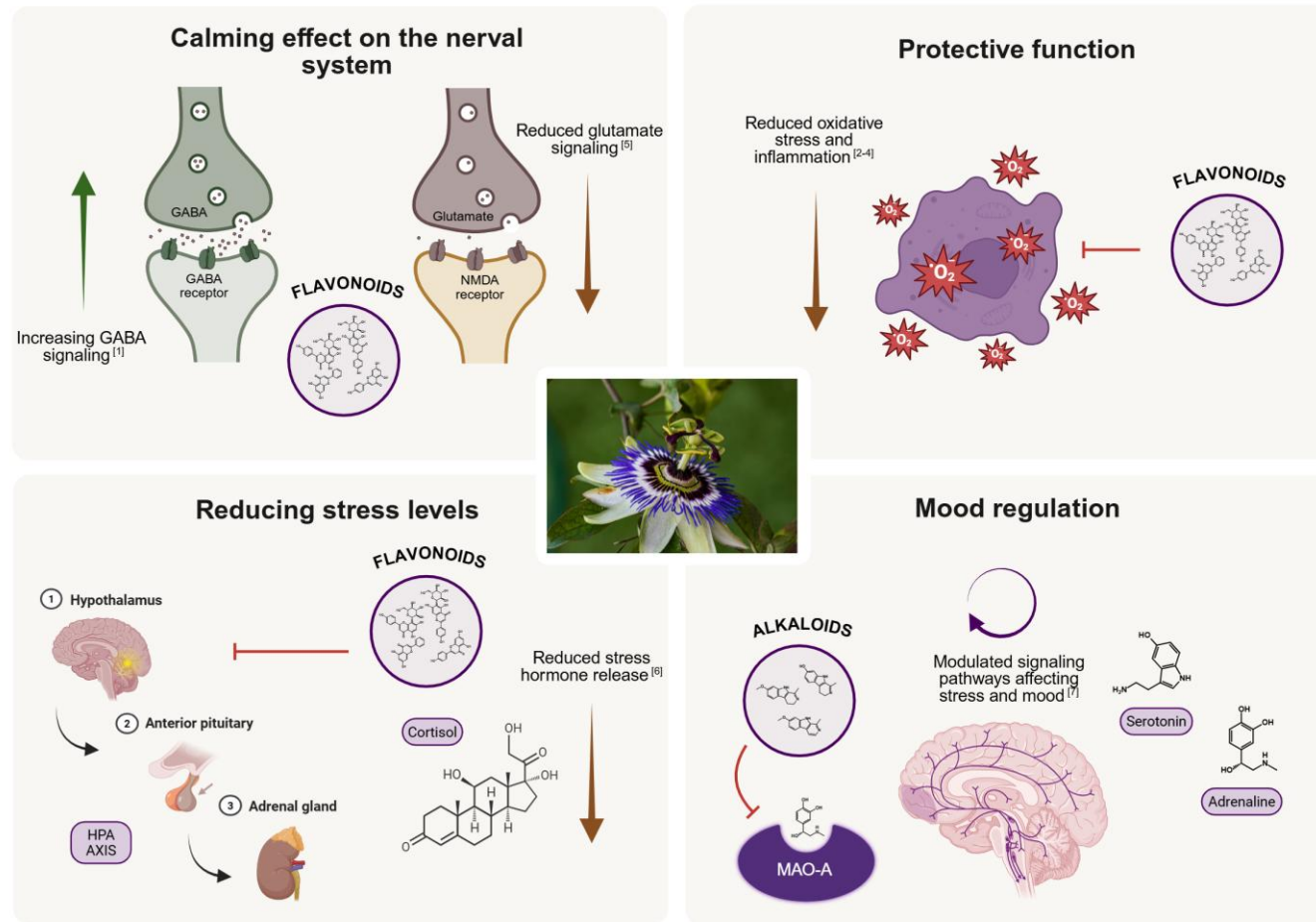


Passiflora applied 30 min prior to surgery in a single dose worked as a safe and effective alternative to midazolam to **reduce** (preoperative) **anxiety levels without interfering with memory formation** ⁴

(4) Dantas, L-P et al., *Medicina oral, patologia oral y cirugia bucal*, 2017.

MECHANISM OF ACTION

Passiflora modulates GABA and glutamate signaling as well as neurotransmitter and cortisol pathways, leading to calming effects



Passiflora's natural compounds display a variety of health benefits:

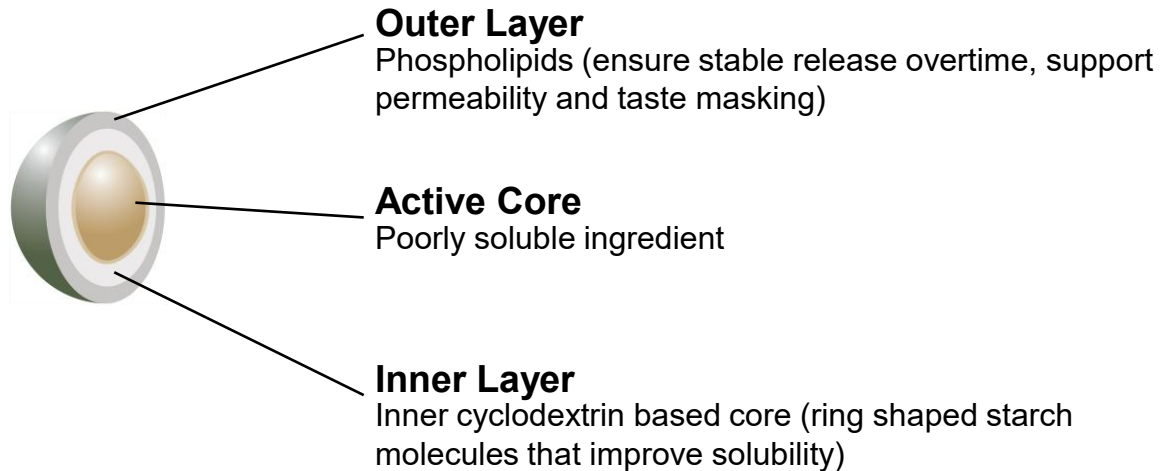
- They have a **calming effect on the brain** by modulating GABA receptors, which reduces anxiety and promotes relaxation ¹
- They may **protect human cells** from damage caused by stress, inflammation, or aging – supporting overall brain health ²⁻⁴
- They **reduce the activity of glutamate**, a chemical that can overstimulate the brain, helping protect it from stress or damage ⁵
- They may **lower stress by reducing the release of hormones** that trigger cortisol ⁶
- They **can affect other brain systems involved in mood and relaxation**, such as serotonin and adrenaline ⁷

SOURCES

- (1) Appel, K et al., *Phytotherapy Research*, 2011.
- (2) Amini, F et al., *Journal of Traditional and Complementary Medicine*, 2023.
- (3) Ożarowski, M., and T. Karpiński. *Current pharmaceutical design*, 2020.
- (4) Dehghani, M A et al., *Brain Research*, 2025.
- (5) Jawna-Zbońska, K et al., *Phytotherapy Research*, 2016.
- (6) Harit, M K et al., *Cureus*, 2024.
- (7) Jafarpoor, N et al., *J Herbmед Pharmacol*, 2014.

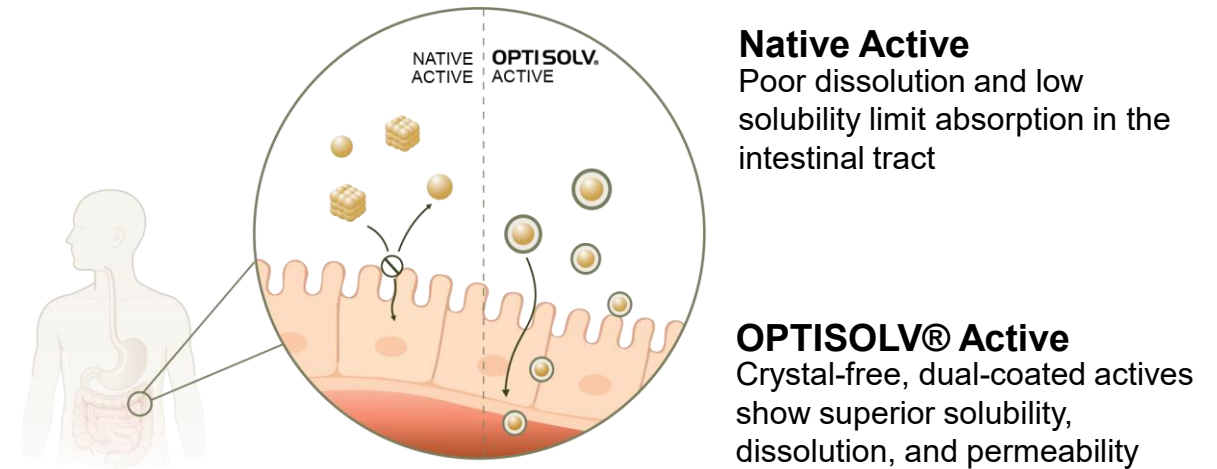
By encapsulating actives on a molecular level, our dual-coating technology OPTISOLV® offers wide-ranging benefits, enhancing the efficacy of ingredients

OPTISOLV® dual-coating technology



OPTISOLV® addresses the key limitations of bioavailability by combining **enhanced solubility** with **improved permeability** through its unique **dual-coating system**.

Native vs OPTISOLV® encapsulated ingredients



Crystal-free stabilization enables **superior absorption**, allowing OPTISOLV® to **outperform conventional technologies** while remaining **fully natural**.

WHY OPTISOLV® PASSIFLORA IS DIFFERENT

OPTISOLV® Passiflora enables a lower dose, masked taste, and fast onset compared to the native extract

The ideal ingredient for innovative formulations



Due to **poor bioavailability** and **solubility**, native passiflora extracts require high doses, while OPTISOLV® Passiflora is dosed at **150–450 mg**.



The native passionflower extract has a very distinctive, **unpleasant smell and taste** (hay-like, wet tobacco), which gets **significantly masked** by the OPTISOLV® Technology



Native passiflora extract **dissolves slowly**, while OPTISOLV® Passiflora dissolves in **under 5 minutes** for **instant absorption** and **quick effect onset**



OPTISOLV® dual-coating enables the next generation of innovative sleep and relaxation products

The difference our technology makes for Passiflora

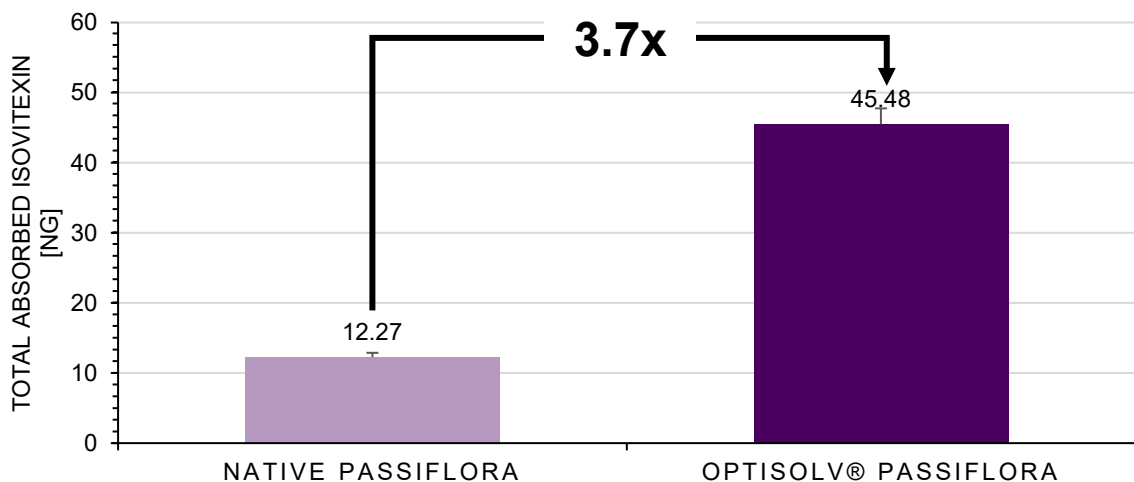
- **Increased water solubility** by more than 10x and increased absorption by 3.7x, resulting in lower dose
- Instant release for **quick effect onset**
- Significantly **improved taste profile** and stability, evidenced by reduced browning during processing



OPTISOLV® Passiflora improves absorption, combined with a favorable taste profile, optimized for highly efficient products for sleep and stress reduction

Absorption assay (human Caco-2 cells)

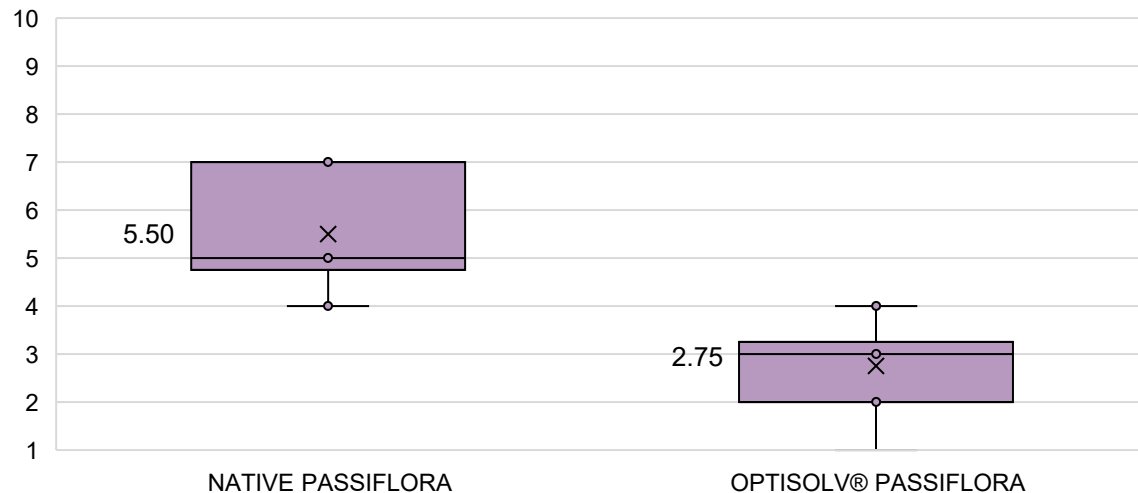
- Absorbed amount of Passiflora OPTISOLV® in comparison to native passionflower extract via human intestinal cell model, measured as Isovitexin
- Pre-digestion in intestinal fluid, followed by 2 h incubation on Caco-2 cells



IMPACT The OPTISOLV® Technology **enhances the absorption by 3.7x** in comparison to native passionflower extract

Sensory Panel Test

- Panel test to evaluate the taste intensity of Passionflower Extract; Each sample contained 150 mg extract (native vs. OPTISOLV®) dissolved in 100 mL of water
- Panelists assessed the intensity of the typical passionflower flavor (earthy, hay-like notes) on a scale from 1-10 (1 = no taste; 10 = strong taste)



IMPACT OPTISOLV® Passiflora shows an **improved taste profile** compared to the native extract, enabling the use in **novel formats** like gummies, fast-melting sticks, or chewing tablets

OPTISOLV® Passiflora is ideal for nutraceutical and functional food applications, enabling versatile formats and efficient manufacturing

OPTISOLV® Passiflora

- Passiflora incarnata complex with 3.7x higher absorption and 10x solubility
- Proprietary formulation with OPTISOLV® Technology
- Instant release: dissolution in under ten minutes to ensure a quick onset
- Improved taste profile allows multiple dosage forms
- Stability at high temperature processing (UHT, pasteurization, heat sterilization)



Suitable For	Nutraceuticals, Functional Foods
Source	Passiflora Incarnata aerial parts/herb (stems, leaves, flowers)
Suitable Dosage Forms	Powders, Capsules, Tablets, Liquids, Stick Packs, Sachets, Gummies, Chewing Tablet
Other Ingredients	Gamma-Cyclodextrin, Lecithin (Sunflower)
Forms	Green/brown free flowing powder
Shelf Life	24 months (stored at a cool, dry place protected from sunlight)
Standardization	N.L.T. 1.5 % Flavonoids
Pack Size	10 kg PE in an Aluminum Bag
Health Benefit	Relaxation / Sleep / Mental Health
Recommended Dosage	150 – 250 mg

OPTISOLV® Passiflora meets the highest quality standards and supports compliance with relevant regulatory requirements

OPTISOLV® Passiflora

- Non-GMO, Vegan, no artificial additives
- Heavy metal, contaminant, content, identity, and microbiology testing for every batch
- No allergens, irradiation, or EO
- Production in Europe follows the highest quality standards in an FDA-registered facility
- FSSC/ISO 22000, HACCP, 21 CFR Part 111
- Halal, Kosher optional
- Full traceability and documentation for every batch

Statement	Summary <i>(Detailed statements and documentation on request)</i>
Adulteration free statement	Manufactured under strict quality controls and not adulterated with undeclared, substituted, or prohibited substances; supplier qualification and routine checks applied.
Allergen Management Statement	Produced without intentional use of EU-listed allergens; allergen risks assessed and controlled through supplier qualification and appropriate manufacturing procedures.
BSE/TSE Statement	Of non-animal origin and free from materials of ruminant origin; no risk of BSE or TSE according to EU regulations
Certificate of Origin	A Certificate of Origin stating the country of origin of the raw material and/or finished product can be provided upon request.
Composition Statement	A detailed composition statement, including qualitative ingredient information is available upon request.
Contaminant Statement	Free from BAP, dioxin, heavy metals, melamine, PAH, Perchlorate Levels, pesticides, PCB, pyrrolizidinalkaloide, residual solvents, mycotoxins
Flow chart	A detailed process flow chart describing the main manufacturing steps, is available upon request.
Food Grade Declaration	Manufactured in compliance with applicable food-grade standards and suitable for use in food and food supplement applications.
Free From Statement	Free from artificial colors, artificial flavors, dairy, flavoring substances, free from palm oil, fructose, gluten, latex, lactose, magnesium stearate, polysorbate, silicon dioxide, soy-free, sugar, titanium dioxide, parabens
Irradiation and ETO-Statement	Not treated with ionizing radiation and not processed using ethylene oxide (ETO), based on supplier declarations and quality controls.
Microbiology Statement	Complies with applicable microbiological specifications for food ingredients; routine microbiological testing is performed.
Nanoparticles Statement	Does not intentionally contain engineered nanomaterials as defined under applicable EU regulations.
Non-GMO-Statement	Not derived from genetically modified organisms and compliant with EU GMO regulations; supporting documentation available upon request.
Novel Food Statement	To the best of our knowledge, the product does not fall within the scope of the Novel Foods Regulation, as governed by Regulation (EU) 2015/2283, detailed information available upon request
Vegan Statement	Of plant origin and produced without ingredients, processing aids, or additives of animal origin; suitable for vegan use.

CONTACT

Partner with us to deliver the next generation of relaxation products

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OPTISOLV® PASSIFLORA



Detailed information
upon request



Thank You

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