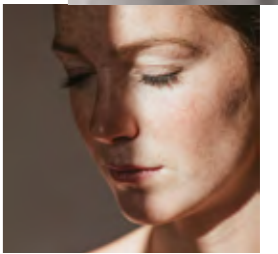




PRODUCT GUIDE





AT LINNEA,
WE STRIVE
TO LEARN
THE LESSONS
MOTHER NATURE
HAS TO TEACH US,
AS WE USE
**CUTTING-EDGE
TECHNOLOGY**
TO TURN
**BOTANICAL
RAW MATERIALS**
INTO **EFFECTIVE
PRODUCTS** THAT
WILL **IMPROVE
PEOPLE'S LIVES.**



GMP
SITE CERTIFIED



GACP
COMPLIANT



TRUST AND
EXPERIENCE



LINNEA'S
7 STEPS OF
CERTIFIED
EXCELLENCE



GREEN SPIRIT

Manufactured
in Switzerland

Linnea
Natural Pharma Solutions

MADE BY NATURE, ENHANCED BY LINNEA

FROM HARVEST TO CUSTOMER, LINNEA GUARANTEES SUSTAINABILITY AND QUALITY WHILE APPLYING SWISS TECHNOLOGY TO EFFECTIVE NATURAL INGREDIENTS

→ DISCOVER MORE ON LINNEA.CH



QUALITY

Since 1982, Linnea is committed to the development of top quality bioactives, which is why we created our own 7-step process to ensure their safety and efficacy.

INNOVATION

Linnea is on the **cutting-edge of innovation**, a mindset that our professionals and executive team apply to **every aspect of the business**.



CERTIFICATIONS

Benefiting from decades of experience and innovation, all Linnea ingredients are manufactured in our **Swiss GMP facility**.

With stringent **ICH protocols**, our quality control system ensures the **consistency and standardization** of each batch, with results that can be duplicated day after day, year after year, providing the reliability essential to the **pharmaceutical, cosmetics and dietary supplement industries**.



GREEN SPIRIT

Sustainability is a company-wide priority: we partner with local farmers in the Swiss canton of Ticino **converting organic waste into energy thanks to a biogas plant**, and we voluntarily adhere to the **Swiss Private Sector Energy Agency Program**, for a minimal CO₂ footprint.

LINNEA 7 STEPS OF CERTIFIED EXCELLENCE

QUALITY IS THE COMMON THREAD DEFINING EVERY STEP OF LINNEA'S MANUFACTURING CHAIN, RESULTING IN OUTSTANDING CERTIFIED INGREDIENTS.

SELECTION & COLLECTION ①

Linnea selects only the finest raw materials from trusted international cultivators



② RESEARCH & DEVELOPMENT

Since 1982, Linnea has expanded its knowledge of botanical ingredients, continuing that research today



TRANSFORMATION ③

Linnea's entire manufacturing process takes place in our GMP-certified facilities in Switzerland, where respect for mother nature comes first.



ASSURING ④

Linnea is driven to discover and create new products that meet rigorous pharmaceutical standards



⑤ SUPPLYING

Our experience sets us apart and guarantees safety, quality and innovation



⑥ DELIVERY

Linnea's logistics professionals ensure that your products arrive quickly and safely



SUPPORT ⑦

The professionals at Linnea are here for your brand: from the selection of just the right ingredients to regulatory assistance, even providing regular updates about advances in the industry



IMPROVING LIVES WITH TRUSTWORTHY INGREDIENTS

OUR SELECTED BOTANICAL INGREDIENTS FOR YOUR INNOVATIVE NATURAL SOLUTIONS



PAGE	08	09	10	11
	Linnea® Ginkgo Biloba	Linnea® Red Clover	Linnea® 5 HTP	Linnea® HMRLignan®
PHARMACEUTICAL INGREDIENTS	■	■	■	
DIETARY INGREDIENTS	■	■	■	■ ***
SUITABLE FOR INJECTABLES				
GMP	■	■	■	■
DMF	■	■	■	
CEP				
PH. EUR.	■			
USP	■ *	■		■ **

* Compliant with US limits, but not methods. ** In progress. *** Novel Food Registration in process in the EU.

	12	13	14	15	16
	Linnea® Bilberry	Linnea® Butylscopolamine	Linnea® Vinpocetine	Linnea® Vincamine	Linnea® Cannabinoids
PHARMACEUTICAL INGREDIENTS	■	■	■	■	■
DIETARY INGREDIENTS	■		■	■	■ ****
SUITABLE FOR INJECTABLES		■	■		
GMP	■	■	■	■	■
DMF	■	■	■	■	■
CEP		■	■	■ **	
PH. EUR.	■	■	■	■	
USP					

**** Novel Food Applications in process for the EU and UK.

Linnea® Ginkgo Biloba

LINNEA'S GINKGO BILOBA BOTANICAL EXTRACT IS AN EFFECTIVE ACTIVE INGREDIENT THAT EMBODIES THE COMPANY PHILOSOPHY AND COMMITMENT TO QUALITY WHILE BENEFITING BOTH BODY AND MIND.

PLANT

Ginkgo biloba L.

PART OF THE PLANT USED

Leaves

APPEARANCE

Light brown, amorphous powder

CAS NUMBER

90045-36-6



USES

+ PHARMACEUTICAL

- // Anti-dementia
- // Circulation

DIETARY INGREDIENTS

- // Memory loss and concentration disorders
- // Minor circulatory disorders

PRODUCTS

GINKGO BILOBA EPG 246



Refined and quantified dry extract

- // Ginkgo flavon glycosides: 22.0% - 27.0%
- // Bilobalide: 2.6% - 3.2%
- // Ginkgolides A, B and C: 2.8% - 3.4%

GINKGO BILOBA ETHANOL



Powdered Ginkgo Extract

- // Ginkgo flavon glycosides: NLT 24%
- // Bilobalide: 2.6% -3.2%
- // Ginkgolides A, B, C, J and Bilobalide: NLT 6%

NATURALLY RICH
IN INGREDIENTS
WITH OUTSTANDING
THERAPEUTIC VALUE

COMPLIES WITH
PH.EUR MONOGRAPH
"GINKGO DRY EXTRACT
REFINED AND QUANTIFIED",
CURRENT EDITION



Linnea® Red Clover

BY CLOSELY MONITORING THE ENTIRE PRODUCTION CHAIN, LINNEA ENSURES UNIFORMITY AND RELIABILITY ACROSS ALL BATCHES OF ITS RED CLOVER EXTRACT, COMPOSED OF A PRECISE RATIO OF FOUR DIFFERENT ISOFLAVONES (FORMONONETIN, BIOCHAIN A, GENISTEIN AND DAIDZEIN).

PLANT

Trifolium pratense L.

PART OF THE PLANT USED

Aerial parts

APPEARANCE

Dark green, amorphous powder

CAS NUMBER

85085-25-2



USES

+ PHARMACEUTICAL

- // Climacteric symptoms
- // Menopause symptoms

DIETARY INGREDIENTS

- // Hot flashes reduction
(natural alternative to HRT - hormone replacement therapy)
- // Menopause ailments
- // Antioxidant and free-radical scavenger

PRODUCTS

RED CLOVER



Dry extract of the aerial parts of isoflavone aglycones

Total isoflavone aglycones: 36.0% - 44.0%

LINNEA WAS THE SPONSOR OF THE
USP MONOGRAPH "RED CLOVER
AERIAL PARTS ISOFLAVONE
AGLYCONES DRY EXTRACT"

GROWN IN OPEN FIELDS

PROPRIETARY
EXTRACTION METHOD

BATCH-TO-BATCH CONSISTENCY
OF THE FOUR MAIN ISOFLAVONES



Linnea® 5 HTP

A NATURALLY GROWING PLANT IN SUB-SAHARAN AFRICA, OUR GRIFFONIA SIMPLICIFOLIA SEEDS ARE HARVESTED FROM THE WILD USING SUSTAINABLE METHODS.

PLANT

Griffonia simplicifolia

PART OF THE PLANT USED

Seeds

APPEARANCE

White to grey, white powder

CAS NUMBER

4350-09-8



USES

+ PHARMACEUTICAL

- // Insomnia
- // Post-anoxic myoclonus
- // Anxiety and depression
- // Migraines

DIETARY INGREDIENTS

- // Sleep improvement
- // Promotion of positive moods and emotions
- // Appetite control and adherence to slimming programs

PRODUCTS

L-5-HYDROXYTRYPTOPHAN



Isolated

- // L-5- Hydroxytryptophan: NLT 99.0%

WILD HARVESTED



Linnea® HMRLignan®

OUR HMRLIGNAN® IS A CONCENTRATED WELLSPRING OF HEALTH, PROVIDING EXPONENTIALLY MORE LIGNANS COMPARED TO DIETARY SOURCES.

PLANT

Picea abies

PART OF THE PLANT USED

Wood knots

APPEARANCE

Off-white crystalline powder



USES

DIETARY INGREDIENTS

- // Antioxidant and antidegenerative
- // Hot flashes in menopause
- // Metabolic syndrome and cardiovascular diseases adjuvant
- // Neuroinflammation and brain aging
- // Connective tissues densifier (Collagen, elastin and hyaluronic acid enhancer)

PRODUCTS

HMRLignan®



Norway Spruce Lignans

- // 7-hydroxymatairesinol in aglycone form, co-crystallized with potassium acetate

TRADEMARKED AND PATENTED

SUSTAINABLE FORESTS TO PROTECT NATURAL HERITAGE

STANDARDIZED SPRUCE KNOT SELECTION

HMRLIGNAN-RICH TREES ONLY

SHORT SUPPLY CHAIN FOR EXCELLENT QUALITY



Linnea® Bilberry

GROWN IN FORESTS IN NORTHERN EUROPE, OUR ANTIOXIDANT-RICH BILBERRIES ARE TRANSFORMED INTO GMP CERTIFIED AND COSMOS APPROVED DRY EXTRACTS.

PLANT

Vaccinium myrtillus L.

PART OF THE PLANT USED

Berries

APPEARANCE

Dark-violet amorphous and hygroscopic powder

CAS NUMBER

84082-34-8



USES

+ PHARMACEUTICAL

- // Venous insufficiency
- // Capillary fragility

DIETARY INGREDIENTS

- // Minor venous circulatory disturbances
- // Discomfort and heaviness of legs
- // Vision functionality and eye health
- // Antioxidant

PRODUCTS

BILBERRY FRUIT DRY EXTRACT EP



Fresh Bilberry Fruit Dry Extract, refined and standardized

// Anthocyanins: 32.4% - 39.6%

POWDERED BILBERRY EXTRACT USP



Powdered Bilberry Extract

// Anthocyanins: NLT 36%

RICH IN ANTIOXIDANTS
AND ACTIVE INGREDIENTS

SUSTAINABLY HARVESTED

SHORT SUPPLY CHAIN
FOR PHYTO-INTEGRITY

UNIFORM PARTICLE SIZE
AND GOOD SOLUBILITY

EXCELLENT STABILITY PROFILE

COMPLIES WITH PH. EUR.
"FRESH BILBERRY FRUIT DRY EXTRACT,
REFINED AND STANDARDIZED" MONOGRAPH,
AND USP "POWDERED BILBERRY EXTRACT"
MONOGRAPH, BOTH CURRENT EDITION

COSMOS
APPROVED



GMP
SITE CERTIFIED



GACP
COMPLIANT



Linnea® Butylscopolamine

A PERIPHERALLY-ACTING ANTIMUSCARINIC AND ANTICHOLINERGIC AGENT, LINNEA HAS PRODUCED BUTYLSCOPOLAMINE IN ITS MANUFACTURING FACILITIES SINCE 1985, OBTAINING THIS SEMI-SYNTHETIC DERIVATIVE FROM THE LEAVES OF THE DUBOISIA PLANT.

PLANT

Duboisia

PART OF THE PLANT USED

Leaves

APPEARANCE

White or almost white Crystalline powder

CAS NUMBER

149-64-4



USES

+ PHARMACEUTICAL

- // Smooth-muscle relaxation
- // Abdominal muscle spasm
- // Renal colic pain
- // Dysmenorrhea

PRODUCTS

BUTYLSCOPOLAMINE ORAL GRADE



SUITABLE FOR ORAL PHARMACEUTICAL FORMS

Semi-synthetic derivative

HYJECT™ | BUTYLSCOPOLAMINE



SUITABLE FOR INJECTABLE

Semi-synthetic derivative

// Non-sterile suitable for injectable pharmaceutical forms

COMPLIES WITH PH. EUR.
"HYOSCINE BUTYLBROMIDE"
MONOGRAPH, CURRENT EDITION



GMP
SITE CERTIFIED



GACP
COMPLIANT



Linnea® Vinpocetine

LINNEA'S VINPOCETINE AND VINCAMINE ARE EXTRACTED FROM VOACANGA AFRICANA SEEDS DIRECTLY AT OUR SWISS MANUFACTURING SITE.

PLANT

Voacanga africana

PART OF THE PLANT USED

Seeds

APPEARANCE

White or slightly yellow crystalline powder

CAS NUMBER

42971-09-5



USES

+ PHARMACEUTICAL

- // Cerebrovascular disorders
- // Degenerative senile cerebral dysfunction
- // Peripheral vasodilatation and cerebral flow increasing
- // Acute and chronic cerebral circulatory dysfunctions

DIETARY INGREDIENTS

- // Concentration and memory
- // Neuroprotection and brain aging

SUSTAINABLE, NO RISK
OF DEFORESTATION

COMPLIES WITH PH. EUR.
"VINPOCETINE" MONOGRAPH,
CURRENT EDITION

PURITY GRADE
BETWEEN 98.5% AND 101.5%

PRODUCTS

VINPOCETINE ORAL GRADE



Semi-synthetic derivative

// Suitable for oral pharmaceutical forms

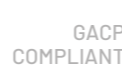
VINJECT™ | VINPOCETINE



SUITABLE FOR INJECTABLE

Semi-synthetic derivative

// Non-sterile suitable for injectable pharmaceutical forms



Linnea® Vincamine

LINNEA'S VINPOCETINE AND VINCAMINE ARE EXTRACTED FROM VOACANGA AFRICANA SEEDS DIRECTLY AT OUR SWISS MANUFACTURING SITE.

PLANT

Voacanga africana

PART OF THE PLANT USED

Seeds

APPEARANCE

White crystalline microcrystalline powder

CAS NUMBER

1617-90-9



USES

+ PHARMACEUTICAL

- // Cerebral circulation modulation
- // Senile cognitive decline delay

DIETARY INGREDIENTS

- // Brain performance (anti-hypoxic activity) and neuroprotective effect
- // Concentration and memory

SUSTAINABLE, NO RISK
OF DEFORESTATION

COMPLIES WITH PH. EUR.
"VINCAMINE" MONOGRAPH,
CURRENT EDITION

PRODUCTS

VINCAMINE



Semi-synthetic derivative



Linnea® Cannabinoids

CBD & CBG

A TREASURE TROVE OF ACTIVE INGREDIENTS JUST WAITING TO BE REDISCOVERED. LINNEA'S THERAPEUTIC CANNABINOID SOLUTIONS ARE THE CULMINATION OF MORE THAN FOUR DECADES OF EXPERIENCE AND UNRIVALED ATTENTION TO QUALITY.

PLANT
Cannabis Sativa L.

PART OF THE PLANT USED
Aerial parts



USES

- + PHARMACEUTICAL
- 🧴 COSMETIC INGREDIENTS
- 🥫 DIETARY INGREDIENTS

STANDARDIZED,
ENSURING SAFETY
AND EFFICACY

PRODUCTS

- | | | |
|---|-------------------------------------|-------|
| neaXTRACTA®
CANNABINOID EXTRACTS | CBD 5%
CBG 5% | 🥫 🧴 + |
| | Cannabinoid Extracts | |
| neaPURE®
CANNABINOID ISOLATES | CBD 99%**
CBG 99%* ** | 🥫 🧴 + |
| | Cannabinoid Isolates | |
| neaPURE®
CANNABINOID DILUTIONS | CBD 20% | 🥫 + |
| | Cannabinoid Dilutions | |
| NioSkin®
NIOSOME COSMETIC INGREDIENTS | CBD 1%
CBD 5% | 🧴 |
| | Niosome Cosmetic Ingredients | |

READY MADE FORM SOLUTIONS

- | | |
|--------|-----------------------------|
| CBD 5% | 🥫 + |
| CBG 5% | 🥫 |
| | Cannabinoid Extracts |

- | | |
|---------|------------------------------|
| CBD 20% | 🥫 + |
| | Cannabinoid Dilutions |

Thanks to Linnea's network of reliable partners, we offer assistance in the development of ready-made therapeutic Cannabinoid-based products, with packaging, containers, labels and inserts tailored to the client's specifications.

PLEASE NOTE THAT THIS DOCUMENT IS NOT MEANT FOR CONSUMERS, AS THE INFORMATION CONTAINED HEREIN DOES NOT REFER TO FINISHED PRODUCTS.

THE IMAGES ARE FOR ILLUSTRATIVE PURPOSES ONLY AND MAY NOT REPRESENT REALITY.

ALL PICTURES WERE TAKEN BEFORE THE COVID-19 PANDEMIC.

BE SURE TO CHECK THE LAWS REGULATING CANNABIS IN YOUR COUNTRY AND/OR THE COUNTRY WHERE THE PRODUCT IS TO BE SOLD.

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* CBG Isolates for pharmaceuticals under development.
** Specification: 98.0% - 102.0%





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