# PURCY EFFICACY Standardised

Standardised Botanical Extracts, Certified Quality Since 1971

# SUSTAINABILITY TRACEABILITY

Milk Thistle Flower



St. John's Wort Flower



## **Decades of Botanical Expertise**

Euromed was founded in 1971 by a leading phytopharmaceutical firm, Madaus AG near Barcelona, Spain to provide its parent company and the European pharmaceutical industry with botanical extracts health professionals could rely on in their practices. Since that time, it has been the ingredient manufacturing division of four European pharmaceutical firms and to date is owned by the German pharmaceutical group Dermapharm AG. Euromed is now a worldwide provider of gold standard, premium quality botanical extracts.

The long-standing medical tradition of the use of botanical therapies in Europe has resulted in Euromed's extracts being used in leading clinically tested products. A pharmaceutical firm's large investment in scientific investigation mandates that the quality of the raw materials used in the formulations be produced consistently and supply reproducible results over time. Euromed is GMP certified by the Spanish Medicine Agency as a manufacturer of Active Pharmaceutical Ingredients (APIs). Euromed's principal products are supported by published efficacy studies and include: African plum bark, artichoke leaf, fig fruit, nettle root, milk thistle seed, olive fruit, pomegranate whole fruit, saw palmetto fruit, St. John's wort herb and valerian root extracts. The effectiveness of these extracts results from the proprietary raw material source, extraction method, extract composition and are not bioequivalent to other similarly named products. This quality investment provides less variation in finished products, reproducibility of clinical studies and greater consumer satisfaction.

# Knowledge of Botanical Species and Cultivation

Euromed's agronomists and botanists travel the globe seeking out optimal geographical environments supplying premium "pharmacopeial-grade" botanical raw materials. Seeds from selected cultivars are identified and cultivated following good agricultural and collection practices (GACP). Farmers are trained to follow company cultivation guidelines, including those required for organic cultivation, harvesting and post-harvest drying.

Qualification and periodic certification of raw material suppliers provide comprehensive traceability from the farm to the final extract. Experience and knowledge allow for harvesting of plants at their peak phytochemical concentration and procuring a large supply to satisfy global customer production requirements.

Sustainability practices for wildcrafted plant sources are employed and investments made for supporting conservation activities for species under harvesting pressure such as Pygeum africanum Hook.f. in Africa which is regulated by the Convention on International Trade in Endangered Species (CITES). By qualitatively controlling all steps from seed selection to final extract, we provide full documented traceability, a mandatory criteria of our quality conscious clientele.

# **Optimal Extraction Technologies**

Euromed follows European and US pharmacopeia botanical monograph guidelines for the establishment of its product specifications. This assures that the proper species and plant parts are utilised and verified by the most accurate laboratory test methods available for identity. Specification sheet species test methods are comprehensive and may include: macroscopic, microscopic, TLC, HPTLC, spectrophotometric, HPLC and GC analyses.

Plants contain phytochemicals with complex molecular structures that have complementary bioactivity. Euromed applies different extraction technologies to concentrate the target molecules while preserving the complete phytochemical profile as it exists in nature. For each botanical extract, the manufacturing equipment, botanical raw material, solvent used and inert substances for standardisation are qualified and the in-process laboratory test parameters are validated at many critical check points as the manufacturing process progresses. In-process controls are key components of quality control in the manufacturing of herbal extracts.

This includes industrial scale absorption columns coupled with tangential flow filtration with eco-friendly Pure-Hydro Process<sup>™</sup>, a proprietary extraction technology that uses purified water as the only solvent, for fruit extracts such as Pomanox<sup>™</sup> and Mediteanox<sup>™</sup>, at its Murcia, Spain facility. The Barcelona extraction facility is the recipient of seven industrial certifications, including ISO 14001 for environmental sustainability. This is verification of responsible industrial practices such as recycling botanical waste for compost, animal feed or use in fabric dyes and employment of facility wastewater treatment before being released into the municipal system.







# **Quality and Innovation for The Future**

A commitment to quality today and for the future was demonstrated by the recent construction of a four-story laboratory and innovation center in Barcelona. Two stories of laboratory instrumentation, staffed by experienced technicians, have been dictated by heightened global customer regulatory demands.

Each production batch, from the herb to the final extract, is subjected to a minimum of twenty laboratory tests for identity, potency and potential impurities. These comprehensive tests are part of the PhytoProof® process of quality control and, when recorded on its certificates of analyses, are assurance that the extract batch was manufactured correctly.

Regulatory and judicial actions have motivated widespread industry testing for proper species and discovery of botanical adulteration. Euromed strives to preserve botanical industry integrity by collaborating with international pharmacopoeias and trade organisations working to elevate product quality standards. Display of the PhytoProof<sup>®</sup> logo on product labels is consumer assurance of stewardship of ingredient potency, purity and identity.

A team of pharmacognosists, chemists and pharmacists at Euromed's innovation center are surveying consumer health concerns and developing efficacious botanical derivatives offering natural solutions for addressing these health issues.





## Proprietary Ingredients, from Field to Extract

## **Certified Quality Since 1971**

Euromed's trademarked ingredients are produced using the PhytoProof® process and supported by published scientific studies. Many marketing firms assign a name to their ingredient, but the actual manufacturer and investment in quality are unknown. PhytoProof® extracts are designed to be highly bioavailable, providing tangible and reproducible results in clinical testing and fulfilling consumer expectations. Use of Euromed's trademarked extracts on labels communicates quality and provides consumer confidence that the ingredient has proper identity, purity and potency.





Patented fig fruit extract standardised to abscisic acid.



Patented water extracts of olive fruit standardised to hydroxytyrosol.

**Pro**liva

20% hydroxytyrosol extract of olive fruit.



International patent-pending milk thistle seed extract.



85-95% total fatty acids supercritical extract of saw palmetto fruit.

pomanox<sup>\*</sup>

Patented whole pomegranate fruit standardised to punicalagins.



Standardised extract of Pygeum africanum, African plum tree bark.



Artichoke extract standardised to inulin and caffeoylquinic acids.

# **PRODUCT LIST**

#### ARTICHOKE DRY EXTRACT CYNAMED\*\* EXTR. CYNARAE SCOL. SICCUM -Cont. min. 3% caffeoylquinic acids as chlorogenic acid and min. 5% Cynarin derivatives as cynarin -Cont. min. 15% caffeoylquinic acids as chlorogenic acid

-Cont. min 18% inulin and min. 4% caffeoylquinic acids as chlorogenic acid

**BILBERRY DRY EXTRACT** EXTR. VACCINII MYRTILLI SICCUM -Cont. min. 25% anthocyanosides

BLACK COHOSH DRY EXTRACT EXTR. CIMICIFUGAE E RHIZ. SPIR. SICCUM -Cont. min. 2.5 % total triterpene glycosides

DEVIL'S CLAW DRY EXTRACT EXTR. HARPAGOPHYTI E RAD. SICCUM -Cont. 1.6-2.2% harpagoside -Cont. min. 5% glycoiridoids as harpagoside

ECHINACEA ANG. ROOT DRY EXTRACT EXTR. ECHINACEAE ANG. E RAD. SICCUM -Cont. min. 4% echinacoside

ECHINACEA PURP. HERB DRY EXTRACT EXTR. ECHINACEAE PURP. E HERB. SICCUM -Cont. min. 4% total phenols

**FSCIN** AESCINUM -Cont. 96-103% escin

**FSCULIN** AESCULINUM -Cont. 97.5 - 102.5% esculin

FUCUS DRY EXTRACT EXTR. FUCI VESICULOSI SICCUM -Cont. 0.05 - 0.15% total iodine

FIG FRUIT DRY AND LIQUID EXTRACT ABA life -Cont. in abscisic acid

GARLIC OIL MACERATE OLEUM MAC. ALLII SATIVI E BULB -Cont. min. 1200 ppm vinyldithiines as allicin 1:1 NAT -Cont. min. 2800 ppm vinyldithiines as allicin 2.4:1 NAT

### GINKGO BILOBA DRY EXTRACT

EXTR. GINKGO BILOBA E FOL. SICCUM -Cont. min. 24% ginkgo flavonglycosides and min. 6% terpene lactones

#### GINSENG DRY EXTRACT

EXTR. GINSENG E RAD. SICCUM -Cont. min. 29% ginsenosides -Cont. min. 14% ginsenosides -Cont. min. 4% ginsenosides

HAWTHORN DRY EXTRACT EXTR. CRATAEGI E FOL. CUM. FLOR. SICCUM -Cont. min. 2,5% of flavonoids as hyperoside -Cont. 1.6-2% vitexin-2-rhamnoside and hyperoside

### HOP STROBILE DRY EXTRACT

EXTR. HUMULI LUPULI E FLOR. SICCUM -Cont. min. 0.2% xanthohumol and min. 0.1% flavonoids exp. as rutin

HORSE CHESTNUT DRY EXTRACT EXTR. HIPPOCASTANI E SEM. SICCUM -Cont. 16-20% escin

KAVA-KAVA DRY EXTRACT EXTR. KAVA-KAVA E RHIZ.SPIR. SICCUM -Cont. min. 30% total kavalactones -Cont. min. 55% total kavalactones - Soft extract

MAGNOLIA DRY EXTRACT -Cont. min. 2% honokiol and min. 3% magnolol

MELISSA DRY EXTRACT EXTR. MELISSAE OFF. E FOL. SICCUM -Cont. min. 4% rosmarinic acid

## LEUCOCYANIDINS OF GRAPE SEED EXTRACT

Cont. min. 85% total polyphenols, max. 25 % polyphenol monomers, procyanidolic value min. 95

## LIME FLOWER DRY EXTRACT

EXTR. TILIAE FLOS SICCUM -Cont. Min 1.5% total flavonoids -Cont. Min 2.5% total flavonoids

MATRICARIA FLOWER DRY EXTRACT EXTR. CHAMOMILLAE E FLOR. SICCUM -Cont. min 1% apigenin-7-glucoside

## MILK THISTLE DRY EXTRACT

EXTR. CARDUI MARIAE E FRUCT. SICCUM -Cont. min. 50-62% silymarin -Cont. min. 80% silymarin

#### NETTLE ROOT DRY EXTRACT

EXTR. URTICAE E RAD. SICCUM -Cont. min. 0.8% ß -sitosterol, 30 ppm scopoletin and 5% total amino acids

## OLIVE FRUIT DRY AND LIQUID EXTRACT Mediteanox

-Cont. min. 40% hydroxytyrosol extract -Cont. min. 20% hydroxytorosol extract -Cont. min. 7% hydroxytorosol extract

## OLIVE LEAF DRY EXTRACT

EXTR. OLEAE EUROPAEAE E FOL. SICCUM -Cont. min. 18% oleuropein

#### PASSION FLOWER DRY EXTRACT

EXTR. PASSIFLORAE INCARNATAE E HERB. SICCUM -Cont. min. 2% flavonoids as vitexin -Cont. min 3.5% flavonoids as vitexin

#### PINE BARK DRY EXTRACT

EXTR. PINUS PINASTER E CORT. SICCUM Specific absortion at 280nm in EtOH 96% - min. 145 Procyanidins 65-75% (USP)

### POMEGRANATE FRUIT DRY EXTRACT 🍐 POMANOX\*

PUNICAE GRANATI SICCUM -Cont. min. 30% punicalagins -Cont. min. 20% punicalagins -Cont. min. 15% punicalagins

## PYGEUM AFRICANUM LIPIDIC STEROLIC EXTRACT Prunera

EXTR. PYGEUM AFRICANUM E CORT. OLEOSUM -Cont. 11.7-14.3% total sterols as ß-sitosterol -Cont. min. 3.7 - 5.1% total sterols as ß-sitosterol -Granulated powder extract

### ROSEMARY DRY EXTRACT

EXTR. ROSMARINI E FOL. SICC -Cont. min 4,9% carnosic acid, min. 11% phenolic diterpenes -Cont. min 6% rosmarinic acid

## SAW PALMETTO LIPIDIC STEROLIC EXTRACT Prosterol

EXTR. SABALIS SERRULATAE E FRUCT. OLEOSUM -Cont. 85 - 95% fatty acids -Cont. min. 45% fatty acids - Powder extract

ST. JOHN'S WORT DRY EXTRACT EXTR. HYPERICI E HERB. CUM FLOR. SICCUM -Cont. min. 0.3% total hypericins as hypericin

#### BEARBERRY DRY EXTRACT EXTR. UVAE URSI E FOL. SICCUM -Cont. min. 20.0% hydroquinone derivatives as arbutin

#### VALERIAN DRY EXTRACT EXTR. VALERIANAE OFF. E RAD. SPIR. SICCUM -Cont. min. 0.8% valerenic acids -Cont. min. 0.3% valerenic acids

## WILLOW BARK DRY EXTRACT

EXTR. SALICIS E CORT. SPIR. SICCUM -Cont. min 15% salicin



euromed











## EUROMED S.A.

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