



**Latin Name: Hypericum perforatum** 

**Active Ingredient: St John'''s wort** 

P.E

CAS No.: 548-04-9 **Test method: TLC** 

Specifications: 4:1 10:1

# **Product Description:**

### **Basic** infor

Name: St John's wort P.E.

Other name: Hypericum perforatum L

Source: Hypericum perforatum L leaf or root NATURAL INGREDIENT SOLUTIONS

Latin name: Hypericum perforatum L

Ingredient: hypericin

Specfication: 0.3%hypericin

Test methods: HPLC/UV

CAS No.: 548-04-9

Molecular Formula: C30H16O8

Molecular Weight: 504.45

Appearance: brown yellow powder

### **Brief Introduction of St John's wort P.E?**

Hypericin is a naphthodianthrone, a red-colored anthraquinone-derivative, which, together with hyperforin, is one of the principal active constituents of Hypericum (Saint John's wort). Hypericin is believed to act as an antibiotic, antiviral and non-specific kinase inhibitor. Hypericin may inhibit the action of the enzyme dopamine β-hydroxylase, leading to increased dopamine levels, although thus possibly decreasing norepinephrine and epinephrine.

It was initially believed that the anti-depressant pharmacological activity of hypericin was due to inhibition of monoamine oxidase enzyme. The crude extract of Hypericum is a weak inhibitor of MAO-A and MAO-B. Isolated hypericin does not display this activity, but does have some affinity for NMDA receptors. This points in the direction that other constituents are responsible for the MAOI effect. The current belief is that the mechanism of antidepressant activity is due to the inhibition of reuptake of certain neurotransmitters.

#### **Function**

1) St. John's Wort Extract Hypericin has significant support in the treatment of mild to moderate



depression, can also help to control appetite and Promotes weight loss.

- 2) St. John's Wort Extract Hypericin is a valuable healing and anti-inflammatory remedy, and improves tolerance to stress.
- 3) Anti-depressive and sedative properties.
- 4) Effective remedy for the nervous system, relaxing tension, and anxiety and lifting the spirits.
- 5) Enhancing the effect of neurotransmitters in the brain.
- 6) As a tissue restorative for nerves, St. John's Wort is indicated for stroke patients, for mild neuroses, sleepwalkers, and accident victims.

# **Application**

This can be used in food industry, cosmetic industry, medical industry.

- 1. To prevent against depression
- 2. To prevent against bacterial infections
- 3. Treatment of pre-menstrual syndrome

It has been used for centuries to calm the nerves and treat depression. It also has been used to dress wounds, heal deep cuts, smooth bums and ease the pain of neuralgias. Taken internally, it has been used forulcers and gastritis. An infusion of the herb has also been used as an expectorant for bronchitis, a diuretic for the kidneys and an easing agent for menstrual cramps.

### What is Hypericum perforatum?

Hypericum perforatum, known as perforate St John's-wort, common Saint John's wort and St John's wort, [note 1] is a flowering plant in the family Hypericaceae. The common name "St John's wort" may be used to refer to any species of the genus Hypericum. Therefore, Hypericum perforatum is sometimes called "common St John's wort" or "perforate St John's wort" in order to differentiate it. It is a medicinal herb with antidepressant activity and potent anti-inflammatory properties as an arachidonate 5-lipoxygenase inhibitor and COX-1 inhibitor. Hypericin derives from polyketides cyclisation.

The biosynthesis of hypericins is in the polyketide pathway where an octaketide chain goes through processes of cylizations and decarboxylations form emodin anthrone which are believed to be the precursors of hypericin. Oxidization reactions yield protoforms which then are converted into hypericin and pseudohypericin. Theses reactions are photosensitive and take place under exposure to light and using the enzyme Hyp-1.

--Hypericum perforatum -rom Wikipedia, the free encyclopedia