



- **Latin Name: Silybum Marianum**
- **Active Ingredient: Silymarin**
- **CAS No.: 65666-07-1**
- **Test method: TLC**
- **Specifications: 10:1 4:1**

Product Description:

Basic infor

Name : Milk Thistle Extract

Other name: Silymarin

Source: Milk Thistle seed

Latin name: Silybum Marianum

Ingredient: ilymarin

Specification : 40%-80% Silymarin 、 10:1

Test methods: UV-VIS/TLC

CAS No.: 65666-07-1

Appearance: brown yellow powder

what is silybum extract silymarin?

Silibinin (INN), also known as silybin (both from Silybum, the generic name of the plant from which it is extracted), is the major active constituent of silymarin, a standardized extract of the milk thistle seeds, containing a mixture of flavonolignans consisting of silibinin, isosilibinin, silicristin, silidianin and others. Silibinin itself is mixture of two diastereomers, silybin A and silybin B, in approximately equimolar ratio.

There is some clinical evidence for the use of silibinin as a supportive element in alcoholic and child grade 'A' liver cirrhosis.

Function

Poor water solubility and bioavailability of silymarin led to the development of enhanced formulations. Silipide (trade name Siliphos), a complex of silymarin and phosphatidylcholine (lecithin), is about 10 times more bioavailable than silymarin. An earlier study had concluded Siliphos to have 4.6 fold higher bioavailability. It has been also reported that silymarin inclusion complex with β -cyclodextrin is much more soluble than silymarin itself. There have also been prepared glycosides of silybin, which show better water solubility and even stronger hepatoprotective effect.

Silymarin, as other flavonoids, has been shown to inhibit P-glycoprotein-mediated cellular efflux.

The modulation of P-glycoprotein activity may result in altered absorption and bioavailability of drugs that are P-glycoprotein substrates. It has been reported that silymarin inhibits cytochrome P450 enzymes and an interaction with drugs primarily cleared by P450s cannot be excluded.

Application

It can be used in food industry, medical industry etc.

Medical uses

Silibinin is available as drug (Legalon® SIL (Madaus) (D, CH, A) and Silimarit® (Bionorica), a Silymarin product) in some EU countries and used in the treatment of toxic liver damage (e.g. IV treatment in case of death cap poisonsing); as adjunctive therapy in chronic hepatitis and cirrhosis.

Potential medical uses

Silibinin is under investigation to see whether it may have a role in cancer treatment (eg due to its inhibition of STAT3 signalling).

Silibinin also has a number of potential mechanisms that could benefit the skin. These include chemoprotective effects from environmental toxins, anti-inflammatory effects, protection from UV induced photocarcinogenesis, protection from sunburn, protection from UVB-induced epidermal hyperplasia, and DNA repair for UV induced DNA damage (double strand breaks).

Biotechnology

Silymarin can be produced in callus and cells suspensions of *Silybum marianum* and substituted pyrazinecarboxamides can be used as abiotic elicitors of flavolignan production.

what is milk thistle?

Silybum marianum has other common names include *cardus marianus*, milk thistle, blessed milkthistle, Marian thistle, Mary thistle, Saint Mary's thistle, Mediterranean milk thistle, variegated thistle and Scotch thistle. This species is an annual or biennial plant of the Asteraceae family. This fairly typical thistle has red to purple flowers and shiny pale green leaves with white veins. Originally a native of Southern Europe through to Asia, it is now found throughout the world. It grows 30 to 200 cm tall, having an overall conical shape with an approx. 160 cm max. diameter base. The stem is grooved and more or less cottony. With the largest specimens the stem is hollow.

The leaves are oblong to lanceolate. They are either lobate or pinnate, with spiny edges. They are hairless, shiny green, with milk-white veins.

The flower heads are 4 to 12 cm long and wide, of red-purple colour. They flower from June to August in the North or December to February in the Southern Hemisphere (Summer through Autumn).

The bracts are hairless, with triangular, spine-edged appendages, tipped with a stout yellow spine.

The achenes are black, with a simple long white pappus, surrounded by a yellow basal ring.

--*Silybum marianum* - Wikipedia, the free encyclopedia