

# SELECT BOTANICAL

## *RHODIOLA ROSEA* *Technical-Scientific report*

### GENERAL INFORMATION

Select Botanical manufactures highest quality extracts following strictest Quality Management System in compliance with the "Good Manufacturing Practices" requirements, carrying on the last manufacturing steps in classified areas (Clean Rooms).

Select Botanical assures the traceability with rigorous analysis from raw material to finished product.

### REGISTRY NUMBERS

**CAS:** 92457-37-9  
**EINECS:** 296-320-5  
**INCI/ UE:** SEDUM ROSEA ROOT EXTRACT

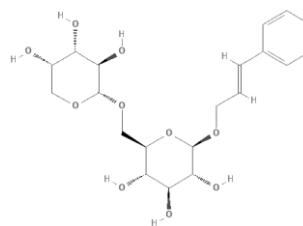
### INFORMATION ABOUT PLANT ORIGIN

#### Botanical Description

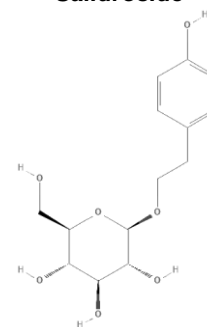
Underground parts consist of numerous rhizomes united at their base into a long taproot. Both the rhizome and root exhibit secondary growth. Pieces of rhizomes are thick, wrinkly, with remains of stems and scales, and pieces of roots branching off the rhizome. The surface of the rhizome and the roots is shiny, grayish-brown; after peeling off the cork, a golden-yellow layer is revealed; fracture, pinkish-brown or light brown.<sup>1</sup>

#### Analytical marker / Active principle

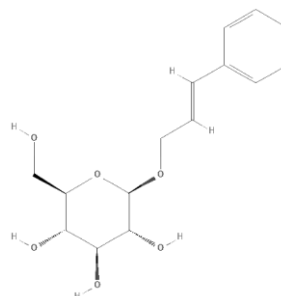
**Rosavin**



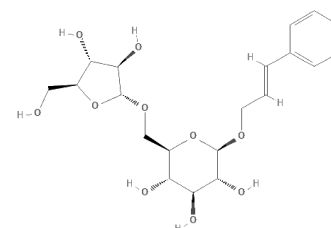
**Salidroside**



**Rosin**



**Rosarin**



### SPECIFICATIONS/ TECHNICAL CHARACTERISTICS

#### Raw material

Definition: Root and Rhizome of *Rhodiola rosea* L.  
Identification:  
- Macroscopic: Complies bibliographic reference<sup>1</sup>  
- Microscopic: Complies bibliographic reference<sup>1</sup>  
- TLC: Complies bibliographic reference<sup>1</sup>  
Loss on drying: ≤ 12 % w/w  
Total Ash: ≤ 12 % w/w  
Pesticides: According to Ph. Eur. current ed.  
Assay (HPLC): Total Rosavins  
Salidroside

#### Composition of Extract Preparation

Native dry extract  
Maltodextrin (if it is necessary)  
Colloidal silicon dioxide

#### Extract Specifications

Loss on drying: ≤ 6 % w/w  
Total ash: ≤ 15 % w/w  
Heavy metals: Analysis of Pb, Hg, Cd and As  
Microbiological assay: According to Ph.Eur.current Ed "5.1.8.Point B"  
Residual solvents: According to guidelines CPMP/ICH/283/95  
Assay (HPLC): Total Rosavins  
Salidroside

# RHODIOLA ROSEA

## Technical -Scientific report

### PHARMACOLOGICAL STUDIES

- sb** Improves physical and mental performance in fatigue situations as well as working capability: improved recovery time, strength, endurance, cardiovascular measures, and coordination.<sup>2,3,4,5</sup>
- sb** Effect on depression and anxiety: improves depression symptoms according to Hamilton scale for depression and anxiety (HAMD and HAMA).<sup>2,4,5</sup>
- sb** Improves visual perception, short-term memory and attention: clinical assays had proved a positive dose dependent effect regarding exhaustion, low motivation, somnolence, low libido, sleep disorders and cognitive deficiencies.<sup>2,4,5</sup>

### PHYTOTHERAPY

#### Activities

##### Oral Use<sup>2,3,4,5</sup>

- sb** Anti-fatigue
- sb** Stress-protective effects
- sb** Adaptogen

##### Topical Use<sup>6</sup>

- sb** Antioxidant
- sb** Astringent
- sb** Skin conditioning

#### Indications:

##### Oral Use<sup>2,3,4,5</sup>

- sb** Indicated to increase work capacity, resilience and improve recovery time.
- sb** Traditional use for temporary relief of symptoms of stress, such as fatigue and sensation of weakness.
- sb** Indicated for treatment of mild to moderate depression and/or anxiety.

##### Topical Use

- sb** Formulated in products anti-aging and skin care protection.

#### Undesirable effects:

There are no reported toxic effects or intolerance phenomenon to normal use doses.<sup>3</sup>

#### Contraindications and special warnings:

- sb** Hypersensitivity to the active substance.<sup>3</sup>
- sb** Safety during pregnancy and lactation has not been established. Therefore is not recommended.<sup>3</sup>
- sb** The safety in children and adolescents under 18 years of age has not been established. Therefore is not recommended.<sup>3</sup>

A doctor or qualified health care practitioner should be consulted.

#### Dosage and administration:

Recommended dosage and administration is indicated in the Community herbal monograph on *Rhodiola rosea* L., rhizoma et radix. EMA/HMPC/232091/2011.<sup>3</sup>

### BIBLIOGRAPHY AND OTHER REFERENCES SOURCES

- Rhodiola rosea* monographs of USP 41
- Assessment report on *Rhodiola rosea* L., rhizoma et radix. EMA/HMPC/232100/2011.
- Community herbal monograph on *Rhodiola rosea* L., rhizoma et radix. EMA/HMPC/232091/2011.
- Rhodiola rosea*: A phytomedical Overview. Richard P.Brown, Patricia L.Gerbag, Zakir Ramazanov. Herbalgram 2002; 56:40-52 American Botanical Council.
- Rhodiola rosea*: a versatile adaptogen. Farhath Khanum, marinder Singh Bawa and Brahm Singh. Institute of food technologists. Comprehensive reviews in food science and food safety, Vol 4, 2005, 55-62.
- Cosmetic Ingredient Database* [European Commission Regulation (v.2)]



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Revision: 01  
November  
2018