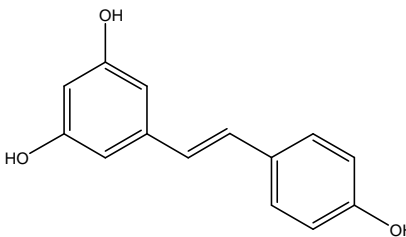



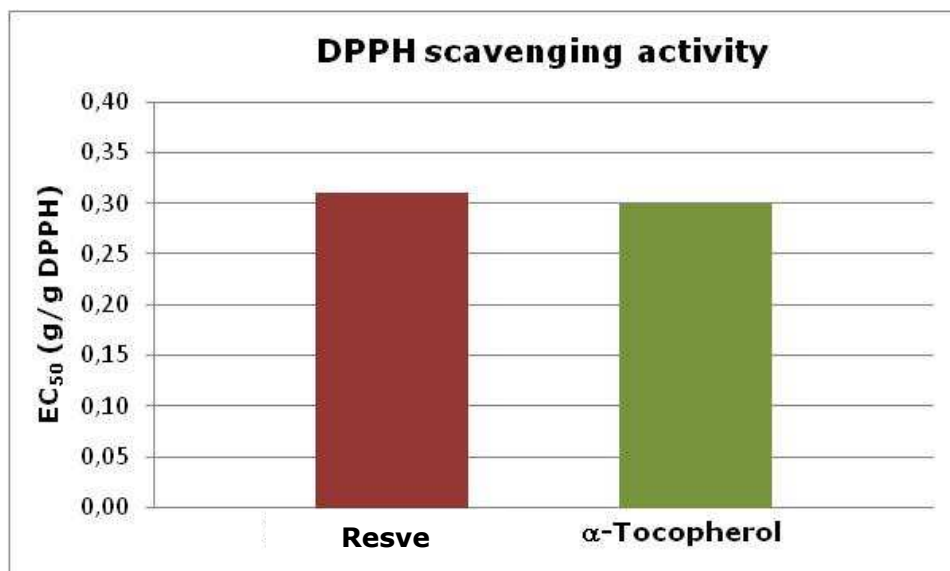
Resve

Specifications and characteristics

INCI name	Resveratrol	Chemical structure 
CAS Reg. No	501-36-0	
Appearance	White or almost white powder	
Purity (HPLC)	Min. 98.0 %	
trans-Resveratrol		
Recommended pH of use	3.0-7.0	
Recommended use level	0.1-1%	
Loss on drying	Max. 1.0 %	
Sulphated ash	Max. 1.0 %	
Melting point	261-267 °C	
Molecular weight	228.24 g/mol	
Regulatory status	Globally approved, safety and regulatory data sheets are available upon request	
Origin, ISO 16128	- 100 % natural, extracted from Japanese Knotweed (<i>Polygonum cuspidatum</i>, <i>Fallopia japonica</i>) - Natural Index: 1.0 - Natural Origin Index: 1.0	 COSMOS APPROVED

Activities

Resve is a plant polyphenol and an effective antioxidant,¹ as can be seen from the results of a DPPH assay:



Resve displays similar antioxidant activity as α-Tocopherol, another wellknown strong antioxidant. This indicates that Resve can protect sensitive bio-molecules against nocive reactive radical species.

Resve is also an efficient antimicrobial against the acne causing *Propionibacterium acnes*².

The above information is accurate to the best of our knowledge. Customers are advised to make their own studies on the usefulness of any ingredient for a particular application. Recommended usage information is only provided as indication, and should not be considered as recommendations to use Minasolve products in violation of any laws, patents, or official regulations dealing with manufacture, composition, local procedures, product design, or end usage.

Resve

Applications in cosmetic formulations

Resve is a powder that can be added to the water or to the oil phase, preferably under hot conditions and before emulsification. In case of solubility issues, a premix with an alkanediol is recommended.

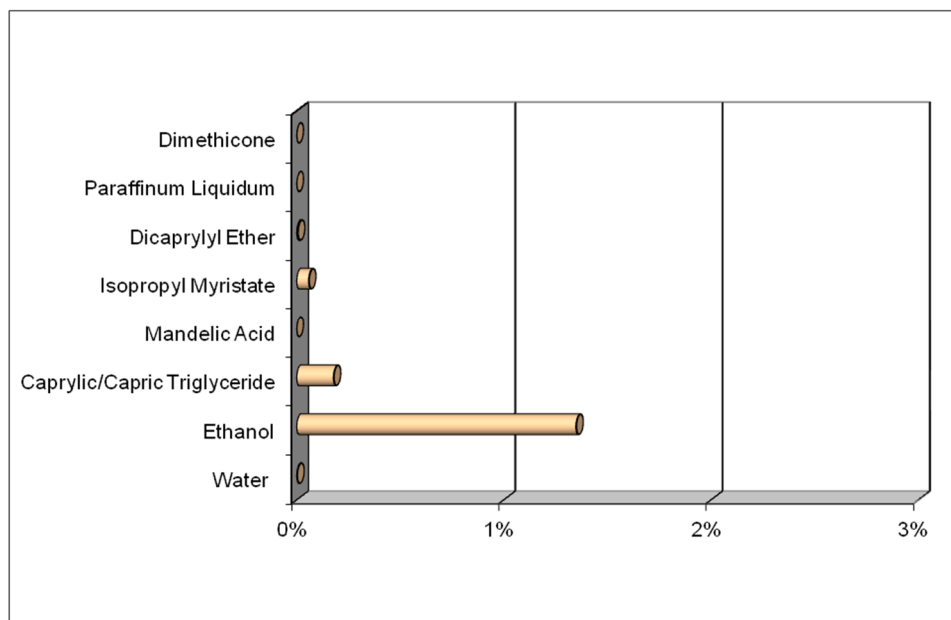
Recommended typical use level: 0.1-1 %

Optimum stability and skin penetration is reached at $\text{pH} \leq 7$. Exposition to higher pH-values may lead to discoloration of the formulation.

The material should not be in contact with strong oxidizing agents, as this will also lead to discoloration. Exposition of dissolved Resveratrol to UV-light may lead to cis/trans isomerisation, without impacting its antioxidant properties.

No isomerisation to cis-Resveratrol will occur at 50°C, if the pH is maintained below 7 and the formulation is kept away from sunlight ⁽³⁾.

Solubility in cosmetic solvents



Resve is also well soluble in alkanediols, such as 1,2-Hexanediol (Hexiol), Pentylene Glycol (A-Leen 5) or Propanediol.

Bibliography

- 1- Gülçin I, Antioxidant properties of resveratrol: A structure-activity insight, *Innovative Food Science & Technologies* **2010**, 11(1), 210-218.
- 2- Docherty JJ *et al.*, Resveratrol inhibition of Propionibacterium acnes, *Journal of Antimicrobial Chemotherapy* **2007**, 9(6), 1182-1184.
- 3- Characterization of the cis/trans Isomerization of Resveratrol by High-Performance Liquid Chromatography", *Analytical Letters* **2017**, 50/2, pp 294-303.

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