

Xesta Extract

Cytisus scoparius extract in hydro-organic solvent mixture

Xesta Extract is a viscous, brown liquid extract of natural origin based on *Scotch broom* polyphenols with high antimicrobial and antioxidant activities



Composition

Ingredients	CAS
Cytisus scoparius extract	84696-48-0
Ethyl Lactate	97-64-3
Distilled water	7732-18-5

Total phenolics index

3750 mg GAE/L extract (milligrams equivalents of Gallic acid by liter of extract)

(Testing method: Spectrophotometry; Folin-Ciocalteu)

Main Polyphenols

Flavones: Chrysin, Orientin, Apigenin.

Flavonols: Quercetin, Quercetin-3-rutinoside (Rutin), Quercetine-3-glucoside (Isoquercetin, Kaempferol, Quercetine-3-glucuronide (Miquelianin).

Non-flavonoids plant phenolics: Protocatechuic acid (3,4- dihydroxybenzoic acid), Protocatechualdehyde (3,4- dihydroxybenzaldehyde), Caffeic acid (3,4-dihydroxy-cinnamic acid).

(Testing method: (HPLC-DAD)



Antioxidant activity

5 millimoles TRE/g dw (millimoles equivalent to Trolox® gram of dry weight)

(Testing method: Spectrophotometry; DPPH)

Antimicrobial activity

Minimum inhibitory concentration (MIC)
expressed in % (v/v)

MIC *Staphylococcus aureus* 3 %
MIC *Bacillus spp* 3 % Concentration
MIC *Escherichia coli* 4 %
MIC *Candida albicans* 3 %

Dosage

It is recommended to homogenize **Xesta Extract** in a proportion between 0,5% and up to 5 % (v/v) in the final product, depending on its final purpose.

Storage

Room temperature, protected from direct light.

Applications

Great natural alternative to other synthetic disinfectants widely used in different industrial sectors. Can be the basis of formulations with bactericidal and/or bacteriostatic activity for the treatment of diseases of microbial origin in different commercial products.

Advantages

Xesta Extract synergistically combines the bacteriostatic activity and the microbicide potency of the polyphenols from the *Scotch broom* and the organic solvent against Gram + and Gram - bacteria being a broad-spectrum antimicrobial.

The extracts are natural and sustainable.

Product Stewardship

i-Grape is concerned about the environment and thus our products are made from green and sustainable raw materials.

Cytisus scoparius, commonly known as *Scotch broom*, is an underutilized perennial shrub that has become an invasive plant of ecological concern in several parts of the world. The abandonment of large areas of land previously used for agriculture, the large number of forest fires that reduce tree presence and poorly designed forest campaigns lead to the



deforestation of large areas, which are quickly occupied by these shrubs.

We explore and characterize its bioactive compounds, turning this biomass into a powerful polyphenol-rich extract antimicrobial and antioxidant.

i-Grape strongly encourages its customers to review the extracts properties with the company to make sure the usage they give to our products is correct.

CONTACT INFORMATION

 **+34 661 54 65 85**

 **www.i-grape.es**

 **info@i-grape.es**

