

OmniVin

>>> Grape seed extracts for wine, nutraceuticals and cosmetics Application data-sheet

>>> GRADE SELECTION

Table 1. shows the polyphenol content of our OmniVin range. The relative oligomer abundance in the different products is demonstrated in Figure 1. There are clear differences between the different grades.

>> OmniVin 20R

OmniVin 20R is a powerful anti-oxidant with a high content of mono- and dimeric proanthocyanidins (OPC's). Due to this high OPC content OmniVin 20R is among the most active grape seed extracts currently on the market.

>> OmniVin WG

For applications requiring higher levels of high molecular weight fractions, OmniVin WG is the best choice.

>> OmniVin 10R

OmniVin 10R is designed to closely mimic the polyphenol composition that is naturally occurring in the grape seed raw material. It contains monomers, dimers as well as higher oligomers.

>> OmniVin R

OmniVin R contains primarily high molecular weight grape seed polyphenols.

| Polyphenol content on dry material Folin Ciocalteu (% GAE) | |
|---|-----|
| OmniVin R | 50 |
| OmniVin 10R | 70 |
| OmniVin WG | 85 |
| OmniVin 20R | 100 |

Table 1. Polyphenol content of OmniVin range (typical values)

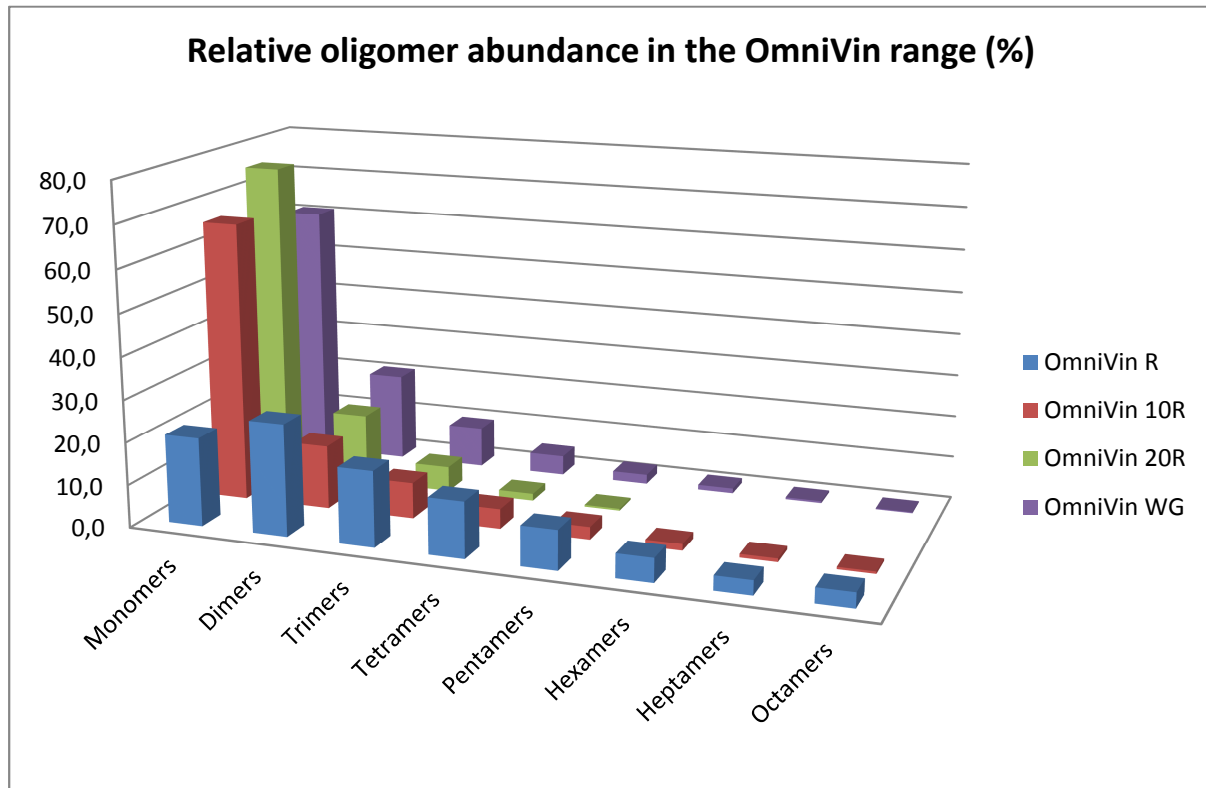


Figure 1. Relative oligomer abundance in the OmniVin range (fluorescence)

>>> APPLICATIONS

>> Wine applications

OmniVin WG and OmniVin 10R/R can be used early on in the winemaking process (e.g. before fermentation) or late in the process prior to bottling. Typical dosage levels are in between 2 – 10 g/hl.

For detailed information regarding this application we refer to our Application Leaflet Wine - FD03.

>> Nutraceuticals

OmniVin 20R can be used as a very strong polyphenolic anti-oxidant alone or in combination with other anti-oxidants, e.g. vitamin C or E. It is claimed that synergistic effects can be obtained when using such ingredients together.

In low budget formulations the use of OmniVin 10R or OmniVin R is recommended.

Several studies indicate that grape seed extract inhibits LDL-oxidation ⁽¹⁾. They also seem to be implicated in reducing platelet aggregation ⁽¹⁾. Furthermore it has been shown in animal models that grape seed polyphenols are capable of lowering arterial blood pressure ⁽²⁾. All these effects are positively associated with the prevention of cardiovascular disease.

Considering that total polyphenol uptake by consumption of vegetables and fruits is estimated at approximately 1 g/day⁽³⁾ and the consumption of polymeric proanthocyanidins could be as high as several hundreds of mg per day⁽³⁾ we recommend a daily dosage of 100 – 200 mg OmniVin 20R.

>> Cosmetics – skin care

Both OmniVin 20R and OmniVin WG are used in cosmetic skin-care formulations to impart anti-oxidant or anti-ageing effects to lotions or creams. It is also useful as an adjuvant in sun-screen formulations where it can help reduce UV-induced skin damage.

In a number of studies it has been established that grape seed extract can reduce UV-B and UV-C-induced lipid peroxidation and could also have a beneficial effect by reducing the incidence of UV-B-induced malignancies⁽⁴⁾.

Besides strong anti-oxidant and radical scavenging properties grape seed extracts have mild exfoliating and bacteriostatic properties that make these products suitable for anti-acne or other applications involving inflammatory skin^(5, 6).

>>> REFERENCES

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3. "Polyphenol: food sources and bioavailability", Claudine Manach et al., Am. J. Clin. Nutr., 2004, 79, 727-747
4. "Natural phenolics in the prevention of UV-induced skin damage. A review." Alena Svobodova et al., Biomed. Papers, 2003, 147(2), 137-145
5. "Tannin-containing composition for skin for external application."; Okuda Takuo et al.; patent JP58038209; Mar. 03, 1983
6. "Pharmaceutical compositions and methods for managing skin conditions." H. Murad; patent application US2002/0172719; Nov 21, 2002

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