Stave wood quality ellagic tannins, extracted from oak heartwood, using LAFFORT’s Instant Dissolving Process (IDP),
for post-vinification use in red, rosé and white wine.

Qualified for the elaboration of products for direct human consumption in the field of the regulated use in oenology.
In accordance with the regulation (EC) n° 606/2009.

SPECIFICATIONS AND ŒNOLOGICAL APPLICATIONS

QUERTANIN® SWEET is a high quality complex ellagitannin preparation to enhance wine structure and palate length:
• Regulates oxidation-reduction phenomena during maturation in barrels or during micro-oxygenation.
• Creates an environment rich in ellagic tannins in used barrels, similar to that of new barrels.
• Improves clarification.

EXPERIMENTAL RESULT

• Tannin content extracted from the oak is lower in used barrels. The ellagitannin protective effect is decreased and the wine becomes subject to premature oxidation. Adding QUERTANIN® SWEET permits the re-creation of the buffer qualities provided by tannins extracted from new barrels, and protects the wine from oxidation phenomena.

• QUERTANIN® SWEET permits a significant decrease in reductive characters, such as light mercaptans, guaranteeing improved preservation of aromatic freshness.
IMPLEMENTATION

Thanks to the IDP process, QUERTANIN® SWEET can be sprinkled directly onto the wine during homogenisation or a pump-over (1 to 10%).

It is recommended to add QUERTANIN® SWEET at least two weeks before bottling.

For white and rosé wines stabilised with CMC (tartaric stabilisation), the addition of tannins towards the end of ageing may affect the colloidal stability; it is recommended to perform a protein stability test again systematically after addition.

STORAGE

- Store in original sealed packages, in a cool dry place (off the floor) in an odour-free environment.
- Optimal date of use: 4 years.
- Opened bags properly re-sealed: 4 months.

PACKAGING

- Resealable doypack of 500g - 10 kg box

PHYSICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>Aspect</th>
<th>granulated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solubility</td>
<td>complete</td>
</tr>
<tr>
<td>Colour</td>
<td>dark brown</td>
</tr>
</tbody>
</table>

CHEMICAL ANALYSIS

- Tannins: > 65 %
- Humidity: < 10 %
- Ash: < 4 %
- Insoluble substances: < 2%
- Arsenic: < 3 ppm
- Iron: < 50 ppm
- Lead: < 2 ppm
- Mercury: < 1 ppm
- Cadmium: < 1 ppm

PROTOCOL FOR USE

DOSAGE

It is specified in the Oenological Codex that tannins “must not change the olfactory properties and the colour of wine”. The dosage rates will therefore vary in function of the wine matrix, and shall be determined after trials.

- Preservation of aromatic freshness in white and rosé wine: 2 to 5 g/hL (20 - 50 ppm).
- Red wine maturation: 5 to 20 g/hL (50 - 200 ppm).

AG - PG - 10.09.18 - The information shown above reflects the current state of our knowledge. It is given without commitment or guarantee since the conditions of use are beyond our control. It does not release the user from legal compliance and safety advice given.