



## Certificate of Analysis

<b>NAME</b>	MaloBacti™ AF3
<b>BACTERIA SPECIES</b>	<i>Oenococcus oeni</i> , strain DSM 22582
<b>TAXONOMY</b>	Coccus, heterofermentative
<b>ENOLOGY PROPERTIES</b>	<p>Temperature range &gt;13-26°C (55-79°F)</p> <p>pH tolerance Minimum 3.0</p> <p>Ethanol tolerance 17% vol.</p> <p>SO<sub>2</sub> tolerance Red wine: SO<sub>2</sub> addition should not exceed 60 ppm at the juice stage. White wine: SO<sub>2</sub> addition should not exceed 50 ppm at the juice stage.</p> <p>Yeast Use yeast strain with low SO<sub>2</sub> production for the alcoholic fermentation.</p>
<b>PACKAGE CONTENT</b>	<p>Product Freeze dried <i>Oenococcus oeni</i> bacteria added glucose and fructose.</p> <p>Package size a) 75 g for 25 hl wine                      b) 400 g for 250 hl wine</p> <p>Bacteria cell number a) &gt;2 x 10<sup>12</sup> CFU/package                      b) &gt;2 x 10<sup>13</sup> CFU/package</p> <p>Bacteria activity pH &lt; 3.8 when 4,5 g product is dissolved in 100 ml water and incubated 12 hours at 25°C</p> <p>Shelf life 2 years in the freezer at -18°C (-1°F). 1 month in the refrigerator at +5°C (+41°F)</p>
<b>MICROBIAL QUALITY</b>	<p>Yeast &lt;10<sup>2</sup> CFU/g</p> <p>Mould &lt;10<sup>2</sup> CFU/g</p> <p>Other lactic acid bacteria &lt;10<sup>4</sup> CFU/g</p> <p>Acetic acid bacteria &lt;10<sup>2</sup> CFU/g</p> <p>E. Coli &lt;10 CFU/g</p> <p>Listeria Negative in 25 g</p> <p>Salmonella Negative in 25 g</p>

Herby we confirm that the batch numbers 9.869.00 and 9.869.01 comply with the specifications of MaloBacti AF3 hl 25,

Managing Director

Carsten Heinemeyer