



Vine and Wine  
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# TITRIVIN BTA

REFERENCE MATERIAL FOR OENOLOGY LABORATORY

## CERTIFICATE OF ANALYSIS

### Material

Blend of wines and musts from different sources.

### Preparation

Prepared by the Vine and Wine Department of the Gironde Chamber of Agriculture, in accordance with the techniques and processes used in oenology.

### Packaging

Partially vacuum-packed ampoules by Pharmaceutical Products Factory, GMP certified.

Ampoules made of yellow, semi-neutral glass, with a nominal capacity of 10ml.

### Uniformity

Control test performed on 1<sup>0</sup>/<sub>00</sub> of ampoules sampled during packaging.

### Stability

Product stabilised with SO<sub>2</sub> and physical treatment processes used in oenology.

Stability tested after accelerated ageing

in climatic condition reproducer.

### Reference values

Values were determined from the results of a series of tests involving, for each parameter, at least 15 oenology laboratories using official methods, accredited by COFRAC (French Accreditation Committee).

Average values were calculated in accordance with ISO 5725 standard.

### Uncertainty

For each value, the confidence interval is more than or equal to 95%.

### Storage

Keep ampoules away from light and store at a positive temperature below 25°C.

### Use

Material for control testing of methods and equipment used to analyse wines.

Expendable ampoules to be used immediately after opening.

### Batch T 03041208 A

PARAMETER	VALUE	CONFIDENCE INTERVAL
Density (g/l)	991,87	± 0,09
Alcoholic strength by vol. %	11,91	± 0,04
Glucose + fructose (g/l)	2,23	± 0,11
Reducing sugars (g/l)	3,64	± 0,13
pH	3,43	± 0,02
Total acidity (g H <sub>2</sub> SO <sub>4</sub> /l)	3,27	± 0,05
Volatile acidity (g H <sub>2</sub> SO <sub>4</sub> /l)	0,39	± 0,02
L-malic acid (g/l)	0,96	± 0,07
L-lactic acid (g/l)	0,82	± 0,06
Sorbic acid (mg/l)	157	± 6
Iron (mg/l)	4,73	± 0,14
Copper (mg/l)	0,11	± 0,02
Potassium (mg/l)	944	± 10
Calcium (mg/l)	67	± 3
<i>Indicative data</i>		
Tartaric acid (g/l)	0,97	± 0,09
Acetic acid (g/l)	0,42	± 0,06

### Validity

- DEC 2010

Person in charge