IOC
Révélons votre différence

LOW $SO_2$ SOLUTIONS

# IOC Calypso™

**Let nature protect the freshness of your wines**

## ACTIVE DRY YEASTS

TECHNICAL DATA SHEET

### Aroma and flavour expression and protection in cold stabulation on the lees

## OENOLOGICAL APPLICATIONS

Cold stabulation on the lees

**IOC CALYPSO™** is a yeast in the *Metschnikowia pulcherrima* family, selected for its unique enzymatic activity. When used during cold stabulation on the lees, **IOC CALYPSO™** acts as an innovative bioprotection tool specifically designed to allow winemakers to limit their use of $SO_2$. Its main contribution is significant development of the aroma precursors already in the must being stabulated. It also then helps to protect the aromas and flavours and the colour of the wine from oxidation, and helps avoid early onset of fermentation, which cold-stabulated musts are particularly susceptible to.

## CHARACTERISTICS

- Strain: *Metschnikowia pulcherrima.*
- Ethanol tolerance: very low (2-3 % vol).
- pH tolerance: low
- $SO_2$ tolerance: < 40 mg/l total $SO_2$, <15 mg/l free $SO_2$.
- Optimal temperature: from 4 to 12°C (tolerance range: from 2°C to 20°C).
- Oxygen consumption capacity: quick
- The yeast is more competitive against the oxidases in the grapes at low temperatures (< 12°C).
- Nitrogen requirements: low
- Fermentation power: negligible
- Colonization and competition power: high.
- $SO_2$/$H_2S$/acetaldehyde/volatile acidity production: very low.
- Requires sequential use of a targeted *Saccharomyces cerevisiae* yeast for alcoholic fermentation.

## MICROBIAL CHARACTERISTICS

- Viable yeasts > 10 billion cells/g.
- Microbiological purity: less than 10 indigenous yeast cells per million cells.

## DOSAGE AND INSTRUCTIONS FOR USE

- Suggested dosage for cold stabulation: 10g/hl (general dosage range: from 7 to 20 g/hl).
- Important: before inoculation, ensure that $SO_2$ levels are low (free <15mg/l; total <40g/l). We recommend adding IOC CALYPSO™ as early as possible in the process: in the press, on coming out of the press or while the tank is being filled for maceration on the lees. Use of the product can also be spread across a number of stages.
- 1st inoculation (at the pre-fermentation stage): IOC CALYPSO™
- Rehydrate the yeast in 10 parts water to 1 part product at 20°C (do not exceed a temperature of 30°C).
- Stir in slightly, then leave to settle for 20 minutes.
- We recommend letting the yeast acclimatize to the temperature of the must to be treated by adding it gradually. The difference in temperature between the must where the yeast will be inoculated and the rehydrated yeast cells must not exceed 10°C.
- If necessary, the yeast can be left suspended in water for 6 hours. If used subsequently, add some must to the suspension after 45 minutes of rehydration.
- 2nd inoculation (after racking): *Saccharomyces cerevisiae*.
- Inoculate at a concentration of 20g/hl, following the generally recommended protocol.

## PACK SIZES AND STORAGE

- Vacuum-packed laminated aluminium and polyethylene pouch.
- Store in a cold (4°C), dry place. Once the package has been opened, the contents should be used immediately.

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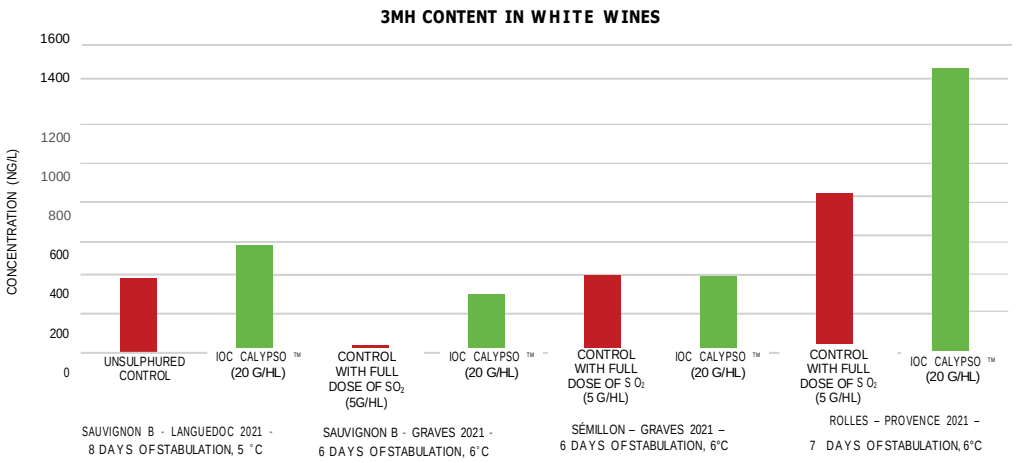
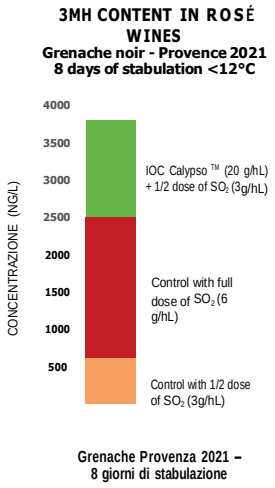
## REVELATION OF THIOL AROMAS AND FLAVOURS IN COLD STABULATION OF WHITE AND ROSÉ MUSTS




Tests conducted on grapes from different vine-growing areas - The results obtained for 3MH acetate (passion fruit) and 4MMP (boxwood) are similar to those observed for 3MH (citrus fruits).

**IOC CALYPSO™** is particularly efficient at revealing varietal thiols (3MH, A3MH and 4MMP) from their precursors. This power depends on the conditions for cold maceration of the must - when conditions are right, with **IOC CALYPSO™**, the winemaker can exploit the full potential of this pre-fermentation technique and boost the effect of a fermentation yeast with a strong capacity for revealing thiols, such as IOC BE THIOLS.

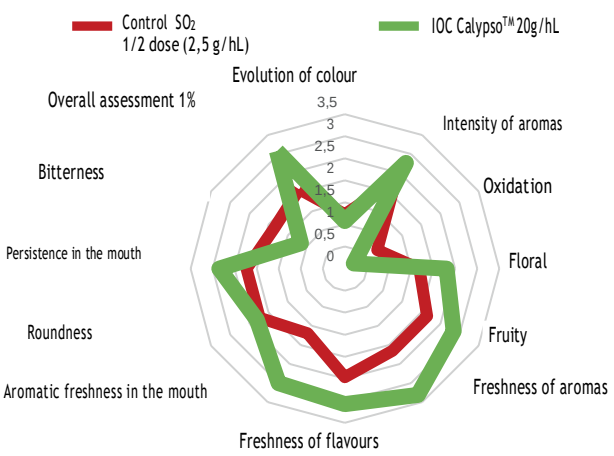
## PROTECTING MUST AND ITS QUALITY THROUGHOUT COLD STABULATION

The time spent cold macerating on the lees, which can last from a few days to a few weeks, is a period when the grape must is particularly exposed to a series of different risks, especially if the winemaker is trying to limit their use of sulphites:

- risk of spontaneous onset of fermentation caused by unwanted proliferation of *S. cerevisiae* cells,
- risk of oxidation caused by dissolved oxygen, which is even easier at low temperatures.

Adding **IOC CALYPSO™** to freshly-pressed must limits the amount of dissolved oxygen available to the oxidases in the grapes. This product also reduces the formation of reactive oxygen species deriving from the polyphenols in the must, and preserves the colours, flavours and aromas expressed in white and rosé wines.

**Sensory profile - IOC Calypso**
**Sémillon - Graves 2021**
**6 days of stabulation, 6 °C**




A product designed for use in combination with the strategies and tools developed by IOC to control both oxidation and microbiological contamination at the pre-fermentation, fermentation and maturation stages, IOC CALYPSO TM is a powerful tool for reducing the use of $SO_2$.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