IOC
Révélons votre différence

DATA SHEET

NATJJA ALMA ™

OPTIMIZING FERMENTATION

Boosts he yeast' wellness and its ability to bring out mineral notes

ŒNOLOGICAL APPLICATIONS

NATJJA ALMA ™ is an innovative 100% organic-based yeast nutrient ideal for for enhancing and protecting the wellness and physiological state of oenological yeasts. By combining balanced organic nutrition with the anti-free radical effect of fungal-origin chitosan and yeast-origin zinc, it not only helps optimize the yeast secondary metabolism for bringing out aromas, but also secure alcoholic fermentation and preserve aromas released during this stage from oxidation.

Due to its specific composition in some peptides and aminoacids, **NATJJA ALMA ™** is specially dedicated to feeding selected yeast naturally able to promote minerality in white, red or rosé wines. Indeed, it tends to increase the yeast potential to express mineral notes without increasing reductive off-flavours such as H_2S.

IMPLEMENTATION AND PRECAUTIONS OF USE

Dosage and protocol: just after yeast inoculation, add 40 g/hL of **NATJJA ALMA ™** to the must.

Adding **NATJJA ALMA ™** at 40 g/hL corresponds to adding 35 mg/L of assimilable nitrogen input (as a technical equivalent). Depending on the original level of assimilable nitrogen in the must, it may be recommended to supplement any deficiencies with additional nitrogen nutrition carried out at one-third of the alcoholic fermentation. If there is a high level of deficiency (available nitrogen <120 mg/L), also supplement **NATJJA ALMA ™** at yeast inoculation by an equivalent nutritional addition of 30 mg/L of assimilable nitrogen.

Place **NATJJA ALMA ™** in suspension by shaking rapidly in 10 times its volume of warm water or must. After incorporating, homogenize the must thoroughly via mixing by pumping over. Once prepared, the formulation must be used within the day.

CHARACTERISTICS

Composition :

- Yeast autolysate (*Saccharomyces cerevisiae*) : organic nitrogen content <11.5% of dry matter (nitrogen equivalent) and amino-acid content between 10% and 20% of dry matter (glycine equivalent).
- Inactivated yeasts (*Saccharomyces cerevisiae*) : organic nitrogen content <9.5% of dry matter (nitrogen equivalent).
- Chitosan (origin *Aspergillus niger*).

PACKAGING AND STORAGE

- 1 kg and 10 kg bags.

To be stored in a dry, odour-free place, at a temperature of between 5°C and 25°C. Once the sachet has been opened, it must be used rapidly and may not be stored.

IOC
ZI de Mardeuil - Allée de Cumières
BP 25 - 51201 EPERNAY Cedex France

Tél. +33 (0)3 26 51 96 00
Fax +33 (0)3 26 51 02 20
www.ioc.eu.com

VERSION 12.05.2025

IOC
Révélons votre différence

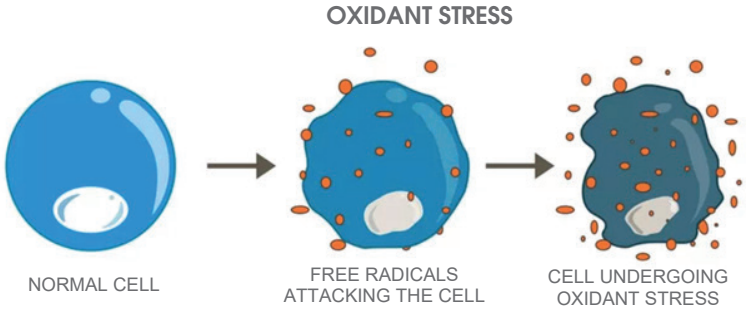
DATA SHEET

NATJJA ALMA™

Synergetic anti-free radical actions which protect the yeast's physiological state

Faced with the increasing presence of ethanol in the must, œnological yeast produces a large quantity of free radicals which in particular cause:

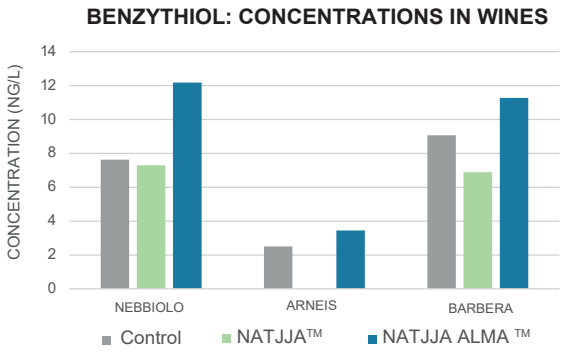
- alteration in the yeast's DNA,
- onset of cell death,
- damage to the plasma membrane (likely to bring about reduced internalisation of aromatic precursors),
- destruction of enzymes and amino-acids (possibly limiting the conversion of aromatic precursors).



Rich in exclusively organic nitrogen, **NATJJA ALMA ™** ensures better regulated nutrition to avoid excessive growth in population, there by limiting the associated phenomena of induced deficiency.

In addition, the high zinc content level in **NATJJA ALMA ™** as well as the presence of dedicated chitosan help reduce the harmful activity of free radicals and oxidant stress to enhance overall yeast healthiness and express its secondary metabolism for bringing out the aromas in grapes.

Increasing the metabolic activity of the specific yeast contributing to the minerality of your wines

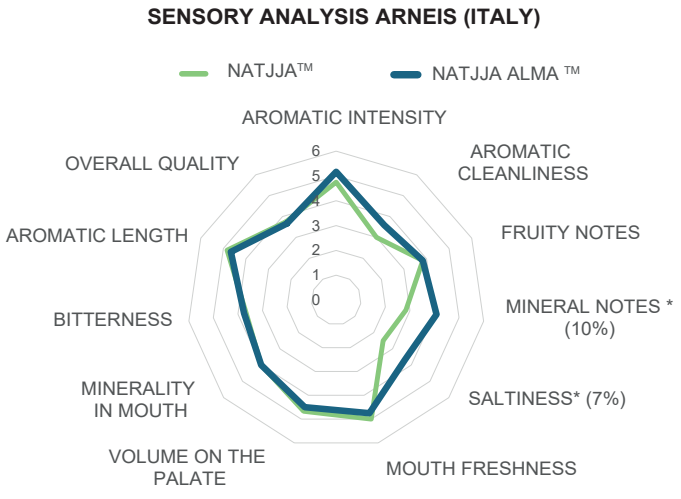


Benzylthiol or benzylmercaptan has been suggested as a major contributor to mineral aromas in wines. It is related to notes of "stone", "chalk" and "firestone" (Cordente et al., 2024). Even if its biosynthesis metabolic pathway is still not fully understood, some specific yeast could be able to reveal this aroma from phenylalanine through Ehrlich pathway (Valera et al., 2020), or from benzaldehyde through reductive pathway (Waterhouse et al., 2016), resulting in a higher mineral aromatic expression.

Some yeast, including IOC 18-2007 ™, IOC SMOOZBERRY ™ or LA CLAIRE EXTASE ™, possess a specific ability to express elegant mineral notes. It could be linked to their specific metabolic pathway of sulfur compounds.

In our experimentations, **NATJJA ALMA ™** greatly contributed to enhance their intrinseque potential in the resulting wines, without increasing the production of negative sulfur compounds such as H_2S.

Minerality without reductive notes, that is made possible thanks to **NATJJA ALMA ™**.



IOC
ZI de Mardeuil - Allée de Cumières
BP 25 - 51201 EPERNAY Cedex France

Tél. +33 (0)3 26 51 96 00
Fax +33 (0)3 26 51 02 20
www.ioc.eu.com

VERSION 12.05.2025