

Winemaking



Specially-designed solutions to protect the quality of your wine throughout every stage of the process

- Protect the grapes and must with cooling applications to prevent the risk of premature oxidation
- Preserve the flavor and aroma by minimizing the dissolved oxygen levels which could otherwise contribute to oxidation damage
- Adjust the dissolved carbon dioxide (CO₂) levels to preserve the wine's organoleptic qualities after the filtering process
- Eliminate oxygen pick-up during the bottling stage in order to maintain the quality of your wine over the long term
- Reduce the use of sulfur dioxide which is typically used as a chemical preservative

ALIGAL™

Quality you can depend on...

- Food grade gases compliant with local regulations & HACCP* methodology
- Specific filling and strict quality control procedures are followed
- Traceability and product recall systems are in place

* Hazard Analysis and Critical Control Points

Reliability when you need it...

- The same quality & consistency anywhere in the world
- Different supply modes to adapt to your changing gas requirements
- On-site mixing capabilities for greater flexibility

Food safety in every cylinder...

- Dedicated cylinders, with specific labeling, for use only in the food and beverage industries
- Special valves to avoid cross-contamination
- Tamper-evident seals to guarantee gas integrity

ALIGAL™ products are specially-formulated for your style of wine by leveraging the properties of each gas molecule:

Nitrogen	Carbon Dioxide	Oxygen	Argon
• Prevents oxidation • Low solubility in wine	• Prevents oxidation • Adjusts the acidity of white wines and the “freshness” of red wines • Creates sparkling wines	• Accelerates the hyper-oxidation of must • Assists yeast propagation during fermentation • Essential for micro-oxygenation during the red wine making process	• Prevents oxidation • Heavier density and slightly more soluble in wine than nitrogen

There is always an ALIGAL™ product for your winemaking requirements:

Wine Making Process	ALIGAL™ 1	ALIGAL™ 2	ALIGAL™ 3	ALIGAL™ 6	ALIGAL™ 12	ALIGAL™ 13	ALIGAL™ 15	ALIGAL™ 62
Bottle Inerting	•	•		•	•	•	•	•
Carbonation of Sparkling Wines		• ALIGAL™ DRINK						
CO ₂ Adjustment	•	•						
Deoxygenation	•							
Grape and Must Cooling		•						
Micro-oxygenation			•					
Mixing / Homogenizing	•							
Must Lifting	•							
Pressure Transfer & Purging	•	•			•	•	•	•
Tank Inerting	•	•		•	•	•	•	•
Ullage Management	•				•	•	•	

Let Air Liquide’s food specialists recommend the best ALIGAL™ solution for your process requirements.

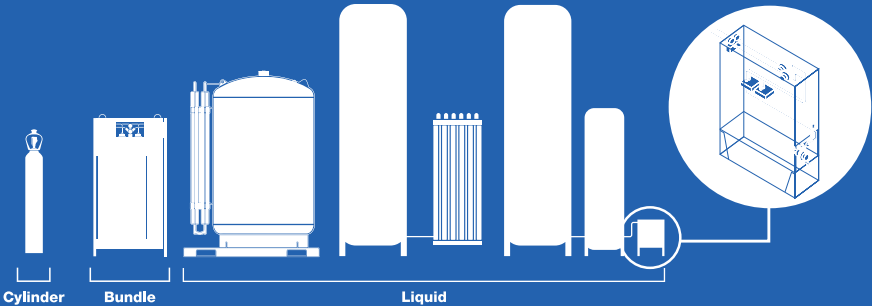
The purity of ALIGAL™ gases protects your finest vintages:

Products Specifications	ALIGAL™ 1	ALIGAL™ 2	ALIGAL™ 3	ALIGAL™ 6	ALIGAL™ 12	ALIGAL™ 13	ALIGAL™ 15
Gas purity - Gas composition	N ₂ ≥ 99.995%	CO ₂ ≥ 99.9%	O ₂ ≥ 99.5%	Ar ≥ 99.99%	N ₂ 80% CO ₂ 20%	N ₂ 70% CO ₂ 30%	N ₂ 50% CO ₂ 50%
H ₂ O (ppm v/v)	≤ 50	≤ 50	≤ 50	≤ 50	≤ 50	≤ 50	≤ 50
O ₂ (ppm v/v)	≤ 20	≤ 30		≤ 20	≤ 20	≤ 20	≤ 20
CO (ppm v/v)	≤ 10	≤ 10	≤ 10	≤ 10	≤ 10	≤ 10	≤ 10
NO/NO ₂ (ppm v/v)	≤ 10	≤ 10			≤ 10	≤ 10	≤ 10
C _n H _m (ppm v/v)	≤ 30	≤ 30	≤ 100	≤ 100	≤ 30	≤ 30	≤ 100
CO ₂ (ppm v/v)			≤ 300				
Total Sulfur (ppm v/v)		≤ 0,5 ⁽³⁾	≤ 300		≤ 0,5 ⁽³⁾	≤ 0,5 ⁽³⁾	≤ 0,5 ⁽³⁾
NVOR ⁽¹⁾ (ppm w/w)		≤ 5 ⁽³⁾			≤ 5 ⁽³⁾	≤ 5 ⁽³⁾	≤ 5 ⁽³⁾
Odor			odor free	odor free			
Tests ⁽²⁾		tests passed					

(1) NVOR = Non Volatile Organic Residue (oil, grease)
(2) "Acidity" test and "Reducing substances + hydrogen phosphide & sulfide" test
(3) Guaranteed in the liquid CO₂ raw product

ALIGAL is Air Liquide's trademark - July 2024 - Photos credits: Cyril ABAD / CAPA Pictures

ALIGAL™ is available with the best choice of supply modes to ensure quality, consistency, reliability and cost competitiveness.



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Air Liquide is a world leader in gases, technologies and services for industry and healthcare. Present in 72 countries with 67,800 employees, the Group serves more than 4 million customers and patients.