

Powering Space Exploration

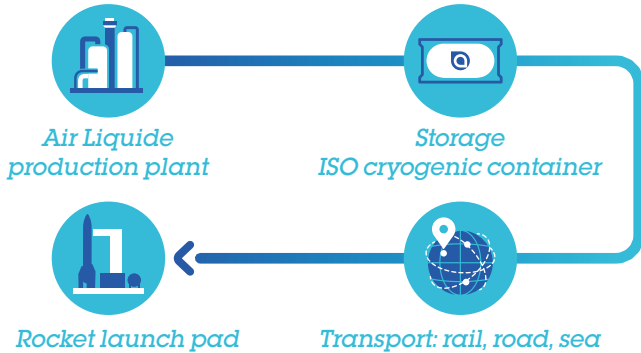
Your seamless connection to essential molecules



Air Liquide Maritime is your specialized partner in the gas supply chain. We connect essential molecules with your local test and launch sites, ensuring a reliable, high-performance supply wherever your mission takes you.

Meeting the unique needs of the space industry

Whether you are developing next-generation launch vehicles or conducting critical motor test campaigns, we address your core challenges:



- **Test pad readiness & launch pad logistics:** Reliable supply of Nitrogen (N₂) in both liquid and gaseous phases for system chill-down and purging. Seamless delivery of Liquid Oxygen (LOX), and high-purity Liquid Biomethane (LCH₄) via dedicated ISO cryogenic containers.
- **Operational optimization:** We can provide at your request, an automated pressure set-up during transfilling and remote-controlled pneumatic valves to streamline your ground operations.

Our comprehensive offer

We bundle molecules, equipment, and logistics into a single, flexible solution:

- **Gases:** Supply of LIN, LOX, high-purity Biomethane (LCH₄) and Liquid Hydrogen (LH₂).
- **Assets:** Rental of high-performance 20 ft and 40 ft super-isolated and extreme temperature-shielded ISO cryogenic containers for both transport and static storage.
- **Logistics:** A customized international supply chain from the gas source directly to your launch or test site via sea, road or rail.

Safety & innovation at the core

- **Advanced monitoring:** Real-time tracking and ATEX-certified sensors for pressure and level reporting of ISO cryogenic containers.
- **Proven compliance:** Our fleet is well-maintained and compliant with all international maritime and transport regulations.
- **Local expertise:** Leveraging Air Liquide's global footprint, including specialized infrastructure.

The core of our logistics: high-performance ISO assets

Our fleet is engineered specifically for the requirements of the space industry. These units act as both transport vessels and modular storage banks on-site.



| Technical specifications | 20 ft ISO cryogenic container (T75) | 40 ft ISO cryogenic container (T75) |
|--------------------------|---|---|
| Compatible molecule | LIN, LOX, LCH ₄ | LIN, LCH ₄ , LH ₂ |
| Capacity | ~21,000 Liters | ~43,000 Liters |
| Insulation | Vacuum-insulated multi-layer "Super-insulation" | Vacuum-insulated multi-layer "Super-insulation" and nitrogen shielded for LH ₂ |
| Maximum working pressure | 22 bar | Up to 10 bar (high-pressure options available) |
| Holding time | LIN: 65 days ; LOX: 90 days ; LCH ₄ : 100 days | Optimized for 70+ days (low boil-off rates) |
| Smart tech | 24/7 telemetry: pressure & GPS | 24/7 telemetry: pressure, liquid level & GPS |
| Compliance | IMDG, ADR, RID, CSC, ASME VIII, TPED/DOT | IMDG, ADR, RID, CSC, ASME VIII, TPED/DOT |

Contact us

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