MEDIA RELEASE
Singapore, 17 October 2026 | **For Immediate Release**

Singapore Conducts World's Largest Ethanol Bunkering Operation

Maersk, Golden Island Pte Ltd. and PSA Singapore (PSA) successfully completed Singapore's first ethanol bunkering operation at PSA's Pasir Panjang Terminal today, with the support of the Maritime and Port Authority of Singapore (MPA). The operation was conducted simultaneously with cargo operations (SIMOPS), with bioethanol bunkered using a mass flow meter (MFM).

2. *Maersk Halifax*, a Singapore-registered dual-fuel container vessel, was bunkered with approximately 5000 metric tonnes of ISCC-certified[1] bioethanol from Golden Island's Singapore-registered IMO Type II chemical tanker, *M.T. Golden Centaurus*, while container operations were carried out concurrently. This was the largest volume of ethanol bunkered in a single operation globally to date.

3. The operation will provide data and learning points to assess how Singapore's existing methanol bunkering technical reference, TR 129[2], could be adapted for ethanol bunkering. Ethanol has similar handling characteristics to methanol and can be used in methanol-capable engines, subject to the necessary modifications[3]. The findings will also inform whether existing MFM systems can be used for future ethanol bunkering operations.

Safety-First Approach

4. Prior to the SIMOPS, participating parties conducted a Hazard Identification and Hazard and Operability Study workshop. MPA also worked closely with all stakeholders to ensure crew members were trained in handling the marine fuel and associated emergency responses, drawing on experience from methanol bunkering.

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[1] Verified by the International Sustainability and Carbon Certification (ISCC) system to meet strict environmental, traceability, and greenhouse gas (GHG) reduction standards.
[2] Singapore launches new standard on methanol bunkering, paves way for maritime industry's transition to sustainable alternative fuels | Maritime and Port Authority of Singapore
[3] The International Maritime Organization has also recognised the use of ethanol alongside methanol in its Interim Guidelines for the Safety of Ships using Methyl/Ethyl/Alcohol as Fuel, which effectively groups methanol and ethanol within the same regulatory framework.

5. Mr Ang Wee Keong, Chief Executive, MPA, said, "This operation allows us to test how Singapore's experience and existing infrastructure for methanol bunkering can support another emerging marine fuel. The findings will help us develop the standards and procedures needed for safe and efficient ethanol bunkering, as we continue to prepare Singapore for a multi-fuel future."

6. "The energy transition requires us to explore and scale solutions that can deliver real-world impact," said Emma Mazhari, Head of Energy Markets, Maersk. "At Maersk, we continue to pursue a multi-fuel strategy because we recognise that no single fuel pathway can decarbonise global shipping on its own."

7. Mr Johnny Tan, Managing Director, Golden Island Pte Ltd, said, "We are proud to have delivered Singapore's first ethanol bunkering, and to have done it alongside live cargo operations, using a mass flow meter. Our crew and Golden Centaurus built on what we learned in methanol bunkering and followed the same safety-first discipline. That let us deliver the largest single ethanol bunker to date safely and on time. We thank MPA, Maersk and PSA for their close collaboration. Golden Island will keep investing in the people, vessels and know-how needed to supply lower-carbon fuels, so that customers can choose the fuel that best meets their decarbonisation goals in the Port of Singapore."

8. Mr Nelson Quek, Regional CEO Southeast Asia, PSA International, said, "The successful completion of the SIMOPS at Pasir Panjang Terminal marks an important step in advancing our operational readiness for a wider range of lower-carbon fuel options, supporting PSA's commitment to sustainability and the maritime industry's decarbonisation efforts. Safety remains our foremost priority, and this operation provides valuable insights into how ethanol bunkering can be safely integrated with container terminal operations. PSA Singapore will continue to work closely with our partners to strengthen our capabilities, build operational resilience, and support the safe, efficient, and scalable adoption of new marine fuels as we enable a more sustainable maritime ecosystem."

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About the Maritime and Port Authority of Singapore (MPA)

MPA was established in 1996 with the mission to develop Singapore as a global hub port and international maritime centre, and to advance and safeguard Singapore's strategic maritime interests. MPA takes on multiple roles as Singapore's maritime and port regulator and planner, international maritime centre champion, national maritime representative, and champion of maritime digitalisation and decarbonisation efforts. MPA partners industry, research community and other agencies to enhance safety, security and environmental protection, facilitate maritime and port operations and growth, expand multi-domain capabilities, and support the cluster of maritime services and manpower development.

For more information, please visit www.mpa.gov.sg/

About Maersk

A.P. Moller - Maersk is an integrated logistics company working to connect and simplify its customers' supply chains. As a global leader in shipping services, the company operates in more than 130 countries and employs over 100,000 people worldwide. Maersk is aiming to reach net zero emissions by 2040 across the entire business with new technologies, new vessels, and green fuels.

For more information: www.maersk.com

About Golden Island

Founded in 1982, Golden Island Pte Ltd is a Singapore-based marine fuel supplier with more than 40 years of experience in the Port of Singapore. Golden Island supplies a growing range of marine fuels, including LSFO 0.5%, LSMGO, biofuels, methanol, and bio-ethanol. It sources these fuels from a global network of reliable trading partners. Golden Island also charters out its fleet of IMO Type II chemical tankers for regional transhipment of clean petroleum products. Golden Island holds a methanol bunkering licence from the Maritime and Port Authority of Singapore (MPA). The group also includes Golden Island Marine Services Pte Ltd, which manages its ships, and Dews Pte Ltd, a freshwater supplier licensed by MPA. Golden Island is committed to on-time delivery, transparency, integrity and safety, and works with customers to find practical low-carbon fuel options as the industry moves to a multi-fuel future.

For more information, please visit www.golden-island.com.sg

About PSA Singapore

PSA Singapore operates the world's largest container transhipment hub in Singapore, handling 44.5 million TEUs of containers in 2025. With connections to 600 ports

globally, shippers have access to daily sailings to every major port in the world, operating 24/7 all year round. Beyond port operations, PSA also offers port adjacency services, our unique differentiator in mid-mile logistics, to meet our customers' dynamic needs. This value adding service, supported by our bespoke port adjacency digital solutions, will provide shared visibility of the end-to-end supply chain. As the partner of choice in port and supply chain operations, PSA is “The World’s Port of Call”. Visit us at www.singaporepsa.com or follow us on LinkedIn and Facebook (@singaporepsa).

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