# PROOF OF PRODUCT (POP)

\*\*Date:\*\* 2025-08-28  
\*\*POP Reference No.:\*\* [pop\_reference]

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| **Document Number / Reference Code** | 4661 |
| **Issue Date** | 2025-09-24 |
| **Validity Date** | 2026-01-29 |
| **Witness / Notary Number** | 9805 |

## Vessel Identification and Technical Details

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| Vessel Identification | | Registry Information | |
| IMO Number | 9943279 | Flag State | Morocco |
| Vessel Type | MV Sea Horizon | Call Sign | 2JNOEB |
| Year Built | 2012 | Vessel Owner | MV Aegean Princess |
| Length Overall (LOA) | 110 m | Vessel Operator / Manager | MV Hapag-Lloyd Express |
| Beam (Width) | 52 m | ISM Manager | Kawasaki Kisen Kaisha |
| Draft | 19.9 m | Registry Port | Port of Rotterdam |
| Technical Specifications | | **Capacity Details** | |
| Gross Tonnage (GT) | 90378 GT | Deadweight (DWT) | 166374 DWT |
| Net Tonnage (NT) | 11527 NT | Cargo Capacity (m³ / barrels) | 76381 m³ |
| Classification Society | ClassNK | Number of Cargo Tanks | 18 tanks |
| Main Engine Type | Doosan | Pumping Capacity (m³/hr) | 3642 m³/h |
| Speed (knots) | 17.0 knots |  |  |

## 1. Seller Information

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| --- | --- |
| Company Name | Hapag-Lloyd AG |
| Registration Number | [seller\_registration] |
| Address | [seller\_address] |
| Tel/Fax | [seller\_tel] |
| Email | sales@exmar.be |
| Authorized Representative | [seller\_representative] |

## 2. Buyer Information

|  |  |
| --- | --- |
| Company Name | Castor Maritime Inc |
| Registration Number | REG-741223 |
| Address | 123 Harbor Street, Maritime District |
| Tel/Fax | [buyer\_tel] |
| Email | bunkers@safebulkers.com |
| Authorized Representative | [buyer\_representative] |

## 3. Product Details

|  |  |
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| Commodity | Very Low Sulfur Fuel Oil (VLSFO) |
| Specification Standard | EN 14214 |
| Origin | Port of Tanjung Pelepas |
| Port of Loading | Port of Shanghai |
| Port of Discharge | Port of Dubai |
| Quantity | [contract\_quantity] |
| Delivery Terms | MV Yang Ming Pioneer |

## 4. Product Technical Specifications (Laboratory Analysis)

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| **Parameter** | **Unit** | **Result** | **Test Method** |
| **API Gravity @ 60°F** | °API | [api\_gravity] | ASTM D287 |
| **Specific Gravity @ 15°C** | g/cm³ | [specific\_gravity] | ASTM D1298 |
| **Density @ 15°C** | kg/m³ | 841.8 kg/m³ @ 15°C | ASTM D4052 |
| **Sulfur Content (Total)** | % wt | 0.025% | ASTM D4294 |
| **Flash Point (PMCC)** | °C | 73°C | ASTM D93 |
| **Pour Point** | °C | -48°C | ASTM D97 |
| **Cloud Point** | °C | [cloud\_point] | ASTM D2500 |
| **Viscosity @ 40°C** | cSt | [viscosity\_40] | ASTM D445 |
| **Viscosity @ 100°C** | cSt | [viscosity\_100] | ASTM D445 |
| **Kinematic Viscosity Index** | - | [viscosity\_index] | ASTM D2270 |
| **Cetane Number** | - | 55.8 | ASTM D613 |
| **Octane Number (RON)** | - | 5747 | ASTM D2699 |
| **Water Content** | ppm | 0.024% | ASTM D6304 |
| **Sediment & Particulates** | % wt | [sediment] | ASTM D473 |
| **Ash Content** | % wt | 0.018% | ASTM D482 |
| **Carbon Residue (Conradson)** | % wt | [carbon\_residue] | ASTM D189 |
| **Nickel (Ni) Content** | ppm | [nickel] | ICP-OES |
| **Vanadium (V) Content** | ppm | [vanadium] | ICP-OES |
| **Sodium (Na) Content** | ppm | [sodium] | ASTM D8110 |
| **Nitrogen Content** | ppm | [nitrogen] | ASTM D5762 |
| **Aromatics Content** | % vol | [aromatics] | ASTM D1319 |
| **Olefins Content** | % vol | [olefins] | ASTM D1319 |
| **Oxygenates (MTBE/ETBE)** | % vol | [oxygenates] | GC-MS |
| **Distillation (IBP)** | °C | [dist\_ibp] | ASTM D86 |
| **Distillation (10% Recovery)** | °C | [dist\_10] | ASTM D86 |
| **Distillation (50% Recovery)** | °C | [dist\_50] | ASTM D86 |
| **Distillation (90% Recovery)** | °C | [dist\_90] | ASTM D86 |
| **Distillation (Final Boiling Pt)** | °C | [dist\_fbp] | ASTM D86 |
| **Residue After Distillation** | % vol | [dist\_residue] | ASTM D86 |
| **Lubricity (HFRR @ 60°C)** | µm | [lubricity] | ISO 12156 |
| **Cold Filter Plugging Point** | °C | [cfpp] | EN 116 |
| **Smoke Point (Jet Fuel)** | mm | [smoke\_point] | ASTM D1322 |
| **Net Calorific Value** | MJ/kg | [calorific\_value] | ASTM D4809 |

## 5. Proof of Product Documents Provided

1. Copy of License to Export 2. Copy of Title Ownership Certificate  
3. Copy of Refinery Commitment to Supply 4. Copy of Statement of Product Availability  
5. Copy of Tank Storage Receipt (TSR) 6. Copy of Recent SGS Report  
7. Copy of Charter Party Agreement (CPA) 8. Copy of Bill of Lading (B/L)

## 6. Certification & Declaration

We, the undersigned, hereby confirm under penalty of perjury that the above-stated product is available and that the documents listed are genuine, verifiable, and issued in good faith.  
  
\*\*For and on behalf of the Seller\*\*  
Signature:   
Name: [seller\_signatory]  
Title: [seller\_title]  
Date: 2025-08-28

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| **Witness / Notary Number** | 9805 |