

MARITIME SERVICE

Eurofins Mechem provides a one-stop suite of ship-focused maritime services, including marine water testing, oil and chemical analysis, bunkering assurance, and Industrial Hazardous Materials (IHM) analysis, primarily asbestos, supported by laboratories accredited to the International Organisation for Standardisation / International Electrotechnical Commission (ISO/IEC) 17025 standard.

WATER TESTING FOR MARINE OPERATIONS

Our services & approach

- **Potable (drinking) water:** Assessed in accordance with World Health Organisation (WHO) Guidelines.
- **Bilge / oily water:** International Convention for the Prevention of Pollution from Ships (MARPOL) Annex I with sampling aligned to the International Maritime Organisation (IMO), International Organisation for Standardisation (ISO), and Marine Environment Protection Committee (MEPC).
- **Greywater:** MARPOL Annex IV discharge controls per MPA and Port Marine Circulars the Maritime and Port Authority of Singapore (MPA) and Port Marine Circulars.
- **Ballast water:** IMO Ballast Water Management (BWM) and MEPC standards and structured for Port State Control (PSC) and Flag State submission.
- **Scrubber washwater:** Exhaust Gas Cleaning System (EGCS) guidelines with results aligned to IMO and MPA requirements.

Regulatory alignment

WHO Guidelines · MARPOL Annex I & IV · PSC & Flag inspections · IMO BWM · EGCS Guidelines · IMO/ISO/MEPC sampling standards · MPA requirements · BWM Convention · WHO water safety guidelines.

OIL & CHEMICAL TESTING

Our services & approach

- **Laboratory analysis**
 - Lubricating oil condition monitoring
 - Oil spill dispersant compliance testing
 - Full ISO 8217:2024 marine fuel analysis
 - Detailed chemical testing using Gas Chromatography–Mass Spectrometry (GC-MS)
 - MPA mandatory tests: Sediment (SAN), Fourier Transform Infrared (FTIR) Polymer, Total Organic Carbon (TOC)
- **Oil & chemical testing**
 - Fuel storage tank inspection
 - Pre-shipment fuel verification
 - Onboard marine fuel sampling
 - Onboard fuel testing & certification

Regulatory alignment

ISO 8217:2024 · IMO/ISO sampling standards · MPA mandatory tests (SAN, FTIR polymer, TOC) · MARPOL Annex VI sulphur compliance · PSC/Emission Control Area (ECA) verification.



BUNKERING (BQS)

Our services & approach

- **Bunker Quantity Survey (BQS):** Tank inspections, vessel/barge gauging, Mass Flow Meter (MFM) verification, Volume Correction Factor (VCF) adjustments, Remaining on Board (ROB) reconciliation.
- **Fuel quality testing:** ISO 8217 marine fuel specifications, covering density, viscosity, sulphur, flash point, cat fines, and stability indicators.
- **MARPOL sampling supervision:** Sampling, sealing, labelling, and maintaining full chain-of-custody for compliance with MARPOL Annex VI sulphur limits.
- **On-site checks and safety governance:** Personal Protective Equipment (PPE) usage, gas detection, permit-to-work coordination, and terminal compliance.

Regulatory alignment

ISO 8217 · MARPOL Annex VI · MPA bunkering requirements · Singapore Standard 600 (SS 600) · Technical Reference 48 (TR 48).

INVENTORY OF HAZARDOUS MATERIALS (IHM) ANALYSIS - MAINLY ON ASBESTOS

Our services & approach

- **IHM Part I surveys:** Conducted for existing and newbuild vessels, including assessment of asbestos-risk areas.
- **IHM Part II & III inventories:** Prepared for ship recycling activities in accordance with international ship recycling requirements.
- **IHM maintenance with digital tracking:** Ongoing management of hazardous materials inventories for continuous compliance.
- **Asbestos testing:** Laboratory analysis performed using accredited methods to confirm material composition.
- **Asbestos management support:** Asbestos surveys, risk assessments, removal supervision, and toolbox training for crew.
- **Structured sampling:** IMO and classification-aligned requirements, supported by full chain-of-custody.
- **Post-survey support:** Guidance for class approval, IHM maintenance procedures, and asbestos removal planning.
- **Standards-aligned reporting:** IMO MEPC 379(80), Hong Kong Convention (HKC), and classification society formats.

Regulatory alignment

IMO MEPC 379(80) · Hong Kong Convention (HKC) · Safety of Life at Sea (SOLAS) asbestos requirements · International Association of Classification Societies (IACS) HazMat expert recognition · European Union Ship Recycling Regulation (EU SRR)



FOR MORE INFORMATION