

GLOBAL DANGEROUS GOODS TRANSPORT COMPLIANCE MATRIX



Replacement Edition - 2026

Legal and operational review current through July 20, 2026

DETERMINATION

An immediate update is appropriate. The October 2025 matrix should be removed from active use and replaced because several statements are now materially inaccurate, incomplete, or insufficiently qualified for operational reliance.

#	MATERIAL ISSUE	WHY THE MATRIX REQUIRES REPLACEMENT
1	U.S. harmonization status	HM-215Q aligned the HMR with UN Model Regulations Rev.22, IMDG 41-22, and ICAO 2023-2024. HM-215R, which would move toward the 2025-2026 international cycle, remains a proposed rule. The prior matrix incorrectly implied that current U.S. law already tracked Rev.24 and sodium-ion provisions.
2	UN Model Regulations Rev.24	Rev.24 is an important 2025 model framework, but it is not itself the binding 2026 transport law for a shipment unless adopted by the governing national, regional, or modal instrument. Current 2025-2026 modal harmonization is principally based on Rev.23.
3	MERCOSUR implementation	CMC Decision 15/2019 is not merely undergoing adoption. It was incorporated by Argentina, Brazil, Paraguay, and Uruguay and entered into force on February 12, 2025.
4	China reference	The citation "JT/T 617-2024" is not supported by the official transport standards listing reviewed. The official listing identifies the JT/T 617 dangerous-goods road-transport series as 2018 standards; current administrative requirements must be checked separately.
5	Current modal amendments	IMDG Amendment 42-24 is mandatory from January 1, 2026. ICAO issued Addendum No. 1 on March 27, 2026 and Corrigendum No. 2 on May 7, 2026. Current ADR materials must be used with official corrections and national implementation.
6	Usability and legal hierarchy	The prior document repeats generic links, omits important national sources, and does not clearly distinguish binding law from model recommendations, carrier rules, guidance, or pending rulemaking.

Publishing recommendation: Post this replacement PDF at the existing compliance-resource location; retain the prior version only in an archive clearly labeled "Superseded - do not use for current compliance."

1. 2026 Regulatory Hierarchy and Status

Use the binding instrument for each shipment leg. Model recommendations and pending rules are planning tools unless incorporated or specifically authorized.

FRAMEWORK	LEGAL FUNCTION	STATUS	2026 COMPLIANCE DIRECTION	SOURCE
U.S. HMR: 49 CFR Parts 171-180	Binding U.S. law	CURRENT	HM-215Q is the current completed harmonization rule. HM-215R was published February 10, 2026 as an NPRM and is not final. PHMSA states that enforcement discretion for the 2025-2026 ICAO TIs and IMDG 42-24 remains in effect during the rulemaking, subject to stated conditions.	S2-S4
49 CFR 171.22-171.25 interface rules	Authorization and U.S. conditions for international standards	CURRENT	A shipment using ICAO, IMDG, Transport Canada TDG, or IAEA provisions must also satisfy the applicable U.S. limitations and additional requirements. Do not treat an international code as a complete substitute for the HMR.	S4
ADR/RID/ADN 2025 and EU Directive 2008/68/EC	Binding inland framework in the EU and treaty jurisdictions, as implemented nationally	CURRENT	Use the 2025 texts, current official corrections, and the law of each origin, transit, and destination jurisdiction. Commission Delegated Directive (EU) 2025/149 updated the EU annex references for the 2025 cycle.	S5-S6
IMDG Code, Amendment 42-24	Mandatory international maritime dangerous-goods code under SOLAS	CURRENT	Mandatory from January 1, 2026. Incorporate the IMO December 2025 errata/corrigenda, port requirements, and carrier acceptance rules.	S7-S8
ICAO Technical Instructions 2025-2026	International air transport baseline implemented through State law	CURRENT	Valid through December 31, 2026. Incorporate Addendum No. 1 (effective March 27, 2026), Corrigendum No. 2 (May 7, 2026), and current State and operator variations.	S9-S12
MERCOSUR CMC Decision 15/2019	Regional road-transport agreement implemented in member-state law	CURRENT	In force since February 12, 2025 after incorporation by Argentina, Brazil, Paraguay, and Uruguay. National implementation, enforcement, emergency-document, and carrier rules still control locally.	S13
UN Model Regulations, Rev.24 (2025)	Model framework for future and national/modal harmonization	PLANNING	Use for gap analysis and change planning. Do not cite Rev.24 as the governing transport law unless the applicable jurisdiction or modal instrument has adopted the relevant provision.	S16
China JT/T 617 series	National road-transport technical standards within China	VERIFY	The official standards list identifies the JT/T 617 series as 2018 editions. Confirm current administrative rules, electronic waybill requirements, permits, local enforcement, and any later amendments before shipment.	S14-S15

Core rule: For a multimodal international movement, compliance is cumulative. The shipper must map the domestic origin leg, the international modal leg, every transit jurisdiction, and the domestic destination leg, then satisfy the most specific applicable requirements and carrier conditions.

2. Lane Matrix - Americas, Europe, and Asia

The entries below identify the compliance architecture. They do not replace shipment-specific classification, competent-authority approvals, or carrier acceptance.

LANE	BINDING BASELINE	MANDATORY INTERFACE CHECKS	2026 ACTION / WATCH
U.S. -> EU ROAD / SEA / AIR HIGH-PRIORITY INTERFACE	- U.S. origin and pre-carriage: current 49 CFR Parts 171-180. - Air: ICAO 2025-2026; sea: IMDG 42-24, each used through the 49 CFR authorization framework. - EU inland road/rail/waterway: ADR/RID/ADN 2025 plus national implementing law.	- Apply all U.S. additional requirements and limitations in 49 CFR 171.22-171.25. - Reconcile proper shipping name, UN number, classification, special provisions, package authorization, marks, labels, and quantity limits. - Verify EU transport document and language rules; ADR driver, vehicle, tank, DGSA, security, tunnel, and route controls as applicable. - Confirm carrier, port, airport, and transit-state variations before tender.	- Use ICAO Addendum No. 1 and Corrigendum No. 2. - Use mandatory IMDG 42-24 and current IMO corrections. - Track HM-215R; do not treat the NPRM as final law. - Do not use UN Rev.24 as the direct 2026 compliance basis.
U.S. -> MERCOSUR ROAD / SEA / AIR REGIONAL RULE NOW IN FORCE	- U.S. origin: current 49 CFR. - International sea/air leg: IMDG 42-24 or ICAO 2025-2026, with U.S. interface conditions. - Road movement in Argentina, Brazil, Paraguay, or Uruguay: CMC Decision 15/2019 and each State Party's implementing law.	- Verify national transport document, emergency sheet/card, language, permits, carrier and driver credentials, vehicle equipment, route, and enforcement rules. - Confirm customs, port, terminal, and local first/last-mile requirements. - Maintain one controlled classification record across sea/air and road documents while addressing local terminology and forms.	- Delete the prior statement that adoption is "ongoing." - Cite CMC Decision 15/2019 as a Decision/Agreement, not a decree. - Verify current member-state penalties and emergency-document requirements for every shipment.
EU -> Asia ROAD / RAIL / SEA / AIR COUNTRY-BY-COUNTRY DESTINATION LAW	- EU origin: ADR/RID/ADN 2025 and national implementation. - International sea/air leg: IMDG 42-24 or ICAO 2025-2026. - Destination and inland transit: national law; there is no single Asia-wide or ASEAN-wide dangerous-goods code.	- China: verify JT/T 617 series, current administrative rules, permits, and electronic waybill obligations. - Japan, Korea, and ASEAN States: verify mode- and commodity-specific ministry rules, local language, labels, documents, and import restrictions. - For air, check current State and operator variations in addition to the ICAO TIs.	- Remove the unsupported "JT/T 617-2024" citation. - Do not presume national adoption of UN Rev.24. - Create battery-specific work instructions for lithium, sodium-ion, equipment, prototypes, damaged/defective units, and power banks.

3. Lane Matrix - Africa and Intra-Asia

Treat national first-mile, transit, port, airport, and last-mile rules as separate compliance gates, even when the same UN classification is used throughout.

LANE	BINDING BASELINE	MANDATORY INTERFACE CHECKS	2026 ACTION / WATCH
EU -> Africa ROAD / SEA / AIR TREATY STATUS VARIES	- EU origin: ADR/RID/ADN 2025 and national implementation. - Sea/air: IMDG 42-24 or ICAO 2025-2026. - Destination/transit: national law. Morocco is an ADR Contracting Party; other jurisdictions must be checked individually.	- Verify competent authority, road carrier and driver credentials, vehicle/tank certificates, route and security controls, local language, emergency contacts, and port/airport permits. - Confirm whether treaty provisions are directly effective or implemented through national legislation. - Distinguish binding law from UNECE training, road-map, or capacity-building materials.	- Replace vague references to "UNECE road-map states" with named jurisdictions and current national sources. - Maintain a country annex for frequently used African destinations. - Revalidate route and transit-country requirements before each movement.
Intra-Asia ROAD / RAIL / SEA / AIR NO SINGLE REGIONAL CODE	- Origin, transit, and destination national laws control each inland segment. - IMDG 42-24 controls international sea legs; ICAO 2025-2026 controls international air legs as implemented by States. - UN Model Regulations provide a harmonization model only where adopted.	- Verify carrier licenses, driver qualifications, vehicle approvals, e-waybills, local emergency information, packaging recognition, and language requirements. - Check ferry, tunnel, bridge, free-trade-zone, and provincial/local restrictions. - For air, reconcile ICAO provisions with State and operator variations; for sea, check port and vessel operator rules.	- Build and maintain jurisdiction-specific rule sheets rather than a single Asia rule statement. - Audit battery, waste, infectious substance, and temperature-control procedures. - Require legal-source verification before adding a year suffix to a national standard.
Africa <-> South America SEA / AIR + ROAD MULTIMODAL INTERFACE	- International leg: IMDG 42-24 or ICAO 2025-2026. - Domestic origin and destination legs: applicable national law. - MERCOSUR CMC Decision 15/2019 applies to qualifying member-state road movements; it does not govern non-member South American jurisdictions.	- Confirm port/airport acceptance, customs controls, local language and emergency documents, carrier/vehicle qualifications, routing, and transshipment requirements. - Ensure classification, package marks, labels, placards, and shipping descriptions remain consistent across modal transfers. - Identify any transit-country or cabotage restrictions.	- Do not state that domestic carriage is governed merely by UN Rev.24. - Document the legal basis for each first-mile and last-mile segment. - Use a formal handoff checklist at every modal transfer.

4. Shipment-by-Shipment Operational Control Matrix

The compliance owner should retain objective evidence for each control before the shipment is offered or accepted for transportation.

CONTROL	REQUIRED DECISION	MINIMUM EVIDENCE	RED FLAGS
1. Route and mode map	List every origin, transit, transshipment, and destination jurisdiction and each road, rail, vessel, air, or inland-waterway leg.	Approved route/mode map; broker and carrier routing confirmation	Unplanned transit country; modal transfer not evaluated
2. Governing-law register	Identify binding national/regional/modal law and distinguish it from model rules, guidance, pending rules, and carrier policy.	Dated source list or legal memo; saved official notices	Reliance on UN Rev.24 alone; unofficial summaries
3. Classification reconciliation	Confirm proper shipping name, UN number, class/division, subsidiary hazard, packing group, special provisions, marine pollutant/environmental status, and exemptions under each applicable regime.	Signed classification worksheet; test reports; competent-authority approvals	Different classification across documents without written rationale
4. U.S. international interface	When a U.S. leg is involved, document the authorization used under 49 CFR 171.22-171.25 and every additional U.S. condition.	49 CFR interface checklist; enforcement-discretion analysis where used	Treating ICAO or IMDG as a complete substitute for 49 CFR
5. Packaging and quantity limits	Use packaging instructions and quantity limits from the edition legally applicable to the particular leg; verify package specifications and test validity.	Packaging certificate; closure instructions; test/inspection records	Expired test; obsolete packing instruction; unrecognized package
6. Hazard communication	Verify marks, labels, placards, orange panels, shipping paper/declaration, technical name, emergency information, language, and electronic-document rules.	Final document set and package/vehicle photographs	Generic bilingual assumption; missing local emergency form
7. Batteries and high-change commodities	Apply dedicated controls for lithium and sodium-ion batteries, power banks, damaged/defective batteries, prototypes, waste, charcoal/carbon, infectious substances, and temperature-controlled materials.	Commodity-specific checklist; UN 38.3/test evidence; state-of-charge data where required	Assuming U.S. adoption of an international battery provision
8. People, vehicles, and equipment	Verify training, recurrent training, DGSA or safety adviser, driver certificates, vehicle/tank approvals, security plan, and PPE/emergency equipment.	Training and certificate register; vehicle/tank file	Certificate valid in origin but not recognized at destination
9. Carrier and facility acceptance	Obtain operator, vessel, airline, port, terminal, warehouse, and airport acceptance requirements and variations before tender.	Written acceptance or current tariff/manual citation	Late rejection because operator variation was not checked
10. Change control and retention	Record the edition, addenda, corrigenda, national variation, and effective date used; retain evidence under the longest applicable period.	Controlled revision log; document-retention schedule	Undated web printout; superseded matrix still in circulation

5. Official Source Register and Update Protocol

Hyperlinks lead to official government or intergovernmental sources. The source register should be link-checked whenever this matrix is reviewed.

S1. Superseded IHMM 2025-2026 Matrix Legacy document reviewed for this replacement edition. S2. PHMSA - HM-215Q Summary States that HM-215Q aligned the HMR with UN Rev.22, IMDG 41-22, and ICAO 2023-2024. S3. Federal Register - HM-215R NPRM, 91 FR 5996 Proposed February 10, 2026; addresses the 2025-2026 ICAO TIs, IMDG 42-24, and UN Rev.23 and discusses enforcement discretion. S4. eCFR - 49 CFR 171.22 Authorization and conditions for use of international standards; use with sections 171.23-171.25 as applicable. S5. UNECE - ADR 2025 Files Official ADR text applicable from January 1, 2025 and associated official files/corrections. S6. EUR-Lex - Commission Delegated Directive (EU) 2025/149 Updates Directive 2008/68/EC annex references for the 2025 ADR/RID/ADN cycle. S7. IMO - IMDG Code Official status page: Amendment 42-24 is mandatory from January 1, 2026. S8. IMO - IMDG 42-24 Errata/Corrigenda (December 2025) Corrections to be used with the 2024 Edition. S9. ICAO - Technical Instructions Official validity period for the 2025-2026 Technical Instructions.	S10. ICAO - Doc 9284 Addenda and Corrigenda Official page listing Addendum No. 1 and Corrigendum No. 2 for the 2025-2026 edition. S11. ICAO - Addendum No. 1 (Power Banks) Addendum effective March 27, 2026; includes revised power-bank provisions. S12. ICAO - State Variations Current State variations must be checked together with operator variations. S13. MERCOSUR - CMC Decision 15/2019 Official record of incorporation by all four States Parties and entry into force on February 12, 2025. S14. China Ministry of Transport - Standards System List Official listing identifies JT/T 617.1 and 617.3-617.7 as 2018 standards. S15. China Ministry of Transport - 2025 Enterprise Guidance Current administrative guidance referencing JT/T 617 and electronic waybill controls. S16. UNECE - UN Model Regulations Rev.24 (2025) Model framework published in 2025 for harmonization and planning; not automatically binding law. S17. UNECE - ADR Country and Competent Authority Information Use to confirm treaty participation, competent authorities, and notifications; verify national implementation separately.
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UPDATE PROTOCOL

IMMEDIATE TRIGGERS - HM-215R final rule or withdrawal/modification of enforcement discretion. - Any ICAO emergency addendum/corrigendum or State variation affecting covered commodities. - New ADR/IMDG edition, corrigendum, national implementation, or MERCOSUR member-state change.	SCHEDULED REVIEW - Formal review no later than January 2027. - Quarterly automated/manual link check for all official sources. - Annual confirmation of high-volume destination-country laws and carrier variations.	DOCUMENT CONTROL - Assign an owner and revision number. - Archive superseded editions with a visible warning. - Record effective date, reviewer, source changes, and affected procedures/training.
LEGAL AND OPERATIONAL DISCLAIMER: This matrix is a high-level compliance navigation tool, not a substitute for the current text of applicable law, competent-authority decisions, permits, carrier/operator variations, or shipment-specific legal and technical review. Requirements can change without notice. The most restrictive applicable legal or carrier requirement may control.		