

Intelligence
Briefing.

What's new in ADR 2027?

Key amendements impacting road transport

Preview

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TERMS & CONDITIONS

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Introduction

This IRU Intelligence Briefing examines the key amendments to the Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), entering into force on 1 January 2027, and their implications for road transport operators.

The new provisions reflect evolving transport technologies, safety requirements and operational practices, with important developments affecting battery transport, alternative-fuel vehicles and driver training.

Battery transport is a major area of change, with new provisions covering lithium and sodium-ion batteries installed in cargo transport units, hybrid batteries, and repaired or refurbished batteries.

Driver training is also evolving, with the introduction of remote training and e-learning options, offering greater flexibility while maintaining essential practical training requirements.

Vehicle safety requirements are being updated to reflect technological developments, particularly for electric and hydrogen-powered vehicles, alongside new provisions for tyre pressure monitoring systems and electrical safety.

Further amendments address dangerous goods classification, exemptions, packaging, marking and labelling, transport documentation, waste transport, and the construction and testing of tanks and equipment.

The briefing provides a detailed examination of these regulatory developments, highlighting amended provisions and transitional measures to help transport operators, safety advisers and other industry stakeholders understand the changes and prepare for ADR 2027 compliance.

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Your guide to the latest regulatory changes affecting the international carriage of dangerous goods by road.

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Part 1

Exemptions (Section 1.1.3)

- For transport category 1, **the table note 'a' in 1.1.3.6.3 is deleted**. Therefore, the maximum amount of 20 can be applicable for all items that are assigned to transport category 1. Consequently, the relevant calculation factor in 1.1.3.6.4 was deleted. So, the multiplication by "20" is no longer applicable.
  According to the **transitional measure 1.6.1.61**, "For the carriage of UN Nos. **0081, 0082, 0084, 0241, 0331, 0332, 0482, 1005 and 1017** in accordance with 1.1.3.6, table note a in 1.1.3.6.3 and the corresponding calculation factor in 1.1.3.6.4 applicable up to 31 December 2026 **may continue to be applied until 31 December 2030**."
- For transport category 2, the UN Nos. 3563 (LITHIUM METAL BATTERIES INSTALLED IN CARGO TRANSPORT UNIT) and 3564 (SODIUM ION BATTERIES INSTALLED IN CARGO TRANSPORT UNIT) are inserted to table 1.1.3.6.3.
- In Sub-section 1.1.3.7, the term "lithium batteries" was changed to "batteries"; therefore, it includes sodium-batteries as well.

Applicability of other regulations (Section 1.1.4)

- Refillable pressure receptacles authorized by the United States of America Department of Transportation (Sub-section 1.1.4.7)
  A consequential amendment can be found in 5.4.1.1.24.
  - the titles of the two paragraphs are amended:
    - 1.1.4.7.1: *Import of dangerous substances in pressure receptacles*
      [ADR 2025: Import of gases]
    - 1.1.4.7.2: *Export of dangerous substances in pressure receptacles and of empty uncleaned pressure receptacles*
      [ADR 2025: Export of gases and empty uncleaned pressure receptacles]
  - a new paragraph is added for disposal
    - 1.1.4.7.3
      Disposal of refillable pressure receptacles
      (a) Refillable pressure receptacles authorised by the United States of America Department of Transportation and constructed in accordance with standards listed in Part 178, *Specifications for Packagings* of Title 49, Transportation, of the *Code of Federal Regulations*, that have been imported in accordance with 1.1.4.7.1, may be carried to a facility for disposal.
      Such pressure receptacles shall not be offered for carriage:
      (i) When leaking;
      (ii) When damaged to such an extent that the integrity of the pressure receptacle or its service equipment may be affected;
      (iii) Unless the pressure receptacle and its service equipment have been examined and found to be in good working order; or

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Part 2

Classification of solutions and mixtures (Section 2.1.3)

- 2.1.3.5.3 (h)
  - Substances of Class 6.1 meeting the inhalation toxicity criteria of packing group I (Substances or mixtures meeting the classification criteria of Class 8 and having an inhalation toxicity of dust and mist (LC_{50}) in the range of Packing group I and a toxicity through oral ingestion ~~or~~ and dermal contact ~~only~~ in the range of Packing group III or less, shall be allocated to Class 8 (see 2.2.61.1.7.2 and 2.2.8.1.4.5))
- Consequential amendments in Chapter 2.2
  - 2.2.61.1.7.2

    Substances and mixtures meeting the criteria of Class 8 and with an inhalation toxicity of dusts and mists (LC_{50}) leading to packing group I shall only be accepted for an allocation to Class 6.1 if the toxicity through oral ingestion or dermal contact is at least in the range of packing groups I or II. Otherwise an assignment to Class 8 shall be made if appropriate (see 2.1.3.5.3. (h) and 2.2.8.1.4.5).

    Assignment to Class 6.1

	Packing group	Oral toxicity LD_{50} (mg/kg)	Dermal toxicity LD_{50} (mg/kg)	Inhalation toxicity by dusts and mists LC_{50} (mg/l)
Highly toxic	I	≤ 5	≤ 50	≤ 0.2
Toxic	II	> 5 and ≤ 50	> 50 and ≤ 200	> 0.2 and ≤ 2
Slightly toxic	III [a]	> 50 and ≤ 300	> 200 and ≤ 1 000	> 2 and ≤ 4

  - 2.2.8.1.4.5

    ~~A substance or mixture~~ Substances or mixtures meeting the criteria of Class 8 having an inhalation toxicity of dusts and mists (LC_{50}) in the range of packing group I, but toxicity through oral ingestion ~~or~~ and dermal contact ~~only~~ in the range of packing group III or less, shall be allocated to Class 8 (see 2.1.3.5.3. (h) and 2.2.61.1.7.2).

    Assignment to Class 8

	Packing group	Oral toxicity LD_{50} (mg/kg)	Dermal toxicity LD_{50} (mg/kg)	Inhalation toxicity by dusts and mists LC_{50} (mg/l)
Highly toxic	I	≤ 5	≤ 50	≤ 0.2
Toxic	II	> 5 and ≤ 50	> 50 and ≤ 200	> 0.2 and ≤ 2
Slightly toxic	III [a]	> 50 and ≤ 300	> 200 and ≤ 1 000	> 2 and ≤ 4

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Samples of energetic materials for testing purposes (Sub-section 2.1.4.3)

- new 2.1.4.3.2

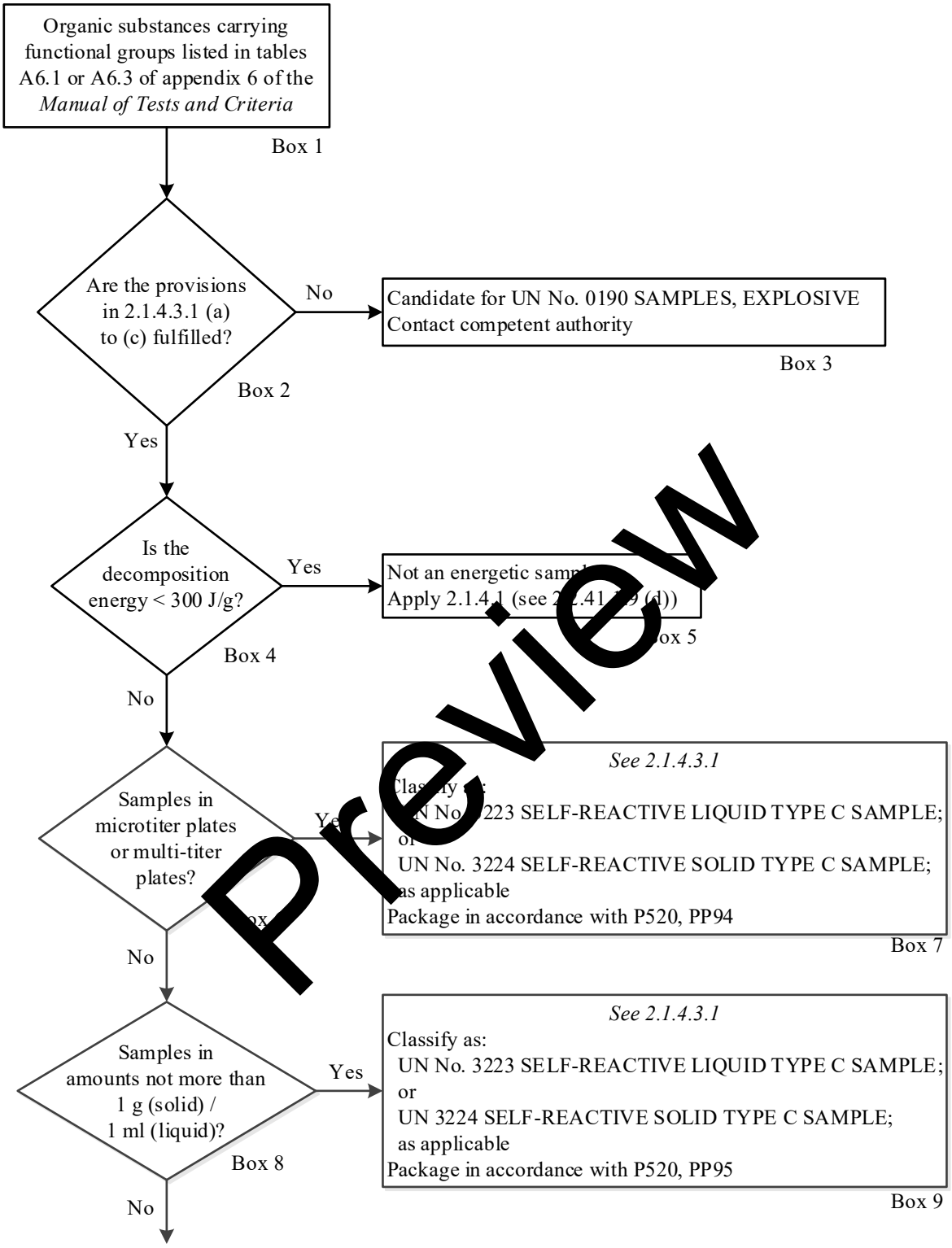
  Samples of organic substances carrying functional groups listed in tables A6.1 or A6.3 in appendix 6 of the *Manual of Tests and Criteria* may be assigned to one of the appropriate entries for self-reactive substances type C (UN Nos. 3223, 3224, 3233 or 3234, as applicable) of Class 4.1 and carried under the provisions of 2.2.41.1.15 for the carriage in amounts of not more than 200 g per outer packaging provided that:

  (a) They fulfil the criteria of 2.1.4.3.1 (a) to (c); and

  (b) Their decomposition energy is:

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Figure 2.1.4.3: Classification of energetic samples



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Alphabetical index of substances and articles of ADR (Chapter 3.2, Table B)

- Amended and new entries in Table B in alphabetical order

Name and description	UN No.	Class	Remarks
CHLOROPHENOLS, CORROSIVE, SOLID, N.O.S.	3562	8	
CHLOROPHENOLS, CORROSIVE, TOXIC, SOLID, N.O.S.	3561	8	
CHLOROPHENOLS, TOXIC, LIQUID, N.O.S.	2021	6.1	
CHLOROPHENOLS, TOXIC, SOLID, N.O.S.	2020	6.1	
HEATING MACHINES containing flammable, non-toxic, liquefied gas	3358	2	
HEATING MACHINES containing non-flammable, non-toxic, gases or ammonia solutions (UN 2672)	2857	2	
LITHIUM ION BATTERIES INSTALLED IN CARGO TRANSPORT UNIT ~~lithium ion batteries or lithium metal batteries~~	3536	9	
LITHIUM METAL BATTERIES INSTALLED IN CARGO TRANSPORT UNIT	3563	9	
SODIUM ION BATTERIES INSTALLED IN CARGO TRANSPORT UNIT	3564	9	
VANADIUM PENTOXIDE, non-fused form, containing less than 10 % respirable particles	2862	6.1	
VANADIUM PENTOXIDE, non-fused form, containing not less than 10 % respirable particles	2862	6.1	

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