

# Australian Dangerous Goods Code Comprehensive Review

Working group supplementary paper #S1



## Tank provisions in ADR - Terminology

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Prepared by: Matt Arkell (NSW EPA)  
Chair – Tanks, vehicles and emergencies working group

# Report outline

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<b>Title</b>	Tank provisions in ADR – Terminology
<b>Type of report</b>	Supplementary paper
<b>Purpose</b>	To support the Australian Dangerous Goods Code Comprehensive Review
<b>Abstract</b>	<p>This is a supplementary paper that explains the terminology and layout of provisions relating to tanks, bulk containers, packagings and vehicles under ADR. This paper is intended as a reference when reading future related consultation papers. Content from this document may be included as an appendix to consultation papers issued as a part of this review.</p>
<b>Attribution</b>	<p>This work should be attributed as follows, Source: National Transport Commission, Tank provisions in ADR – Terminology, working group supplementary paper #S1.</p> <p>If you have adapted, modified, or transformed this work in anyway, please use the following, Source: based on National Transport Commission, Tank provisions in ADR – Terminology, working group supplementary paper #S1.</p>
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<b>Contact</b>	<p>National Transport Commission Level 3/600 Bourke Street Melbourne VIC 3000 Ph: (03) 9236 5000 Email: <a href="mailto:dkirk@ntc.gov.au">dkirk@ntc.gov.au</a> <a href="http://www.ntc.gov.au">www.ntc.gov.au</a></p>

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# Purpose of this paper

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The National Transport Commission (NTC) is conducting a comprehensive review of the Australian Code for the Transport of Dangerous Goods by Road & Rail (the Code).

In conducting the review, the NTC will seek to achieve greater alignment with the internationally recognised land mode-specific requirements contained in the Agreement for the International Transport of Dangerous Goods by Road (ADR) and the Agreement for the International Transport of Dangerous Goods by Rail (RID).

The review is focused on outcomes that serve the best interest of all parties involved in the transport of dangerous goods. This includes those parties on which the requirements are imposed, those who regulate and administer the requirements, and those who must maintain them.

The purpose of this paper is to provide background and contextual information to support future papers authored by the Tanks, Vehicles and Emergencies Working Group.

This paper contains a list of draft definitions that will be used for future related papers. It also contains an overview of how the tank related provisions are presented in the ADR. In line with the Review Principles, it is intended that the definitions and structure of information in the draft code remain as closely aligned to the ADR as possible. The actual requirements will be the subject of future papers and extensive consultation.

This paper relates to:

The Code – Part No.	<input type="checkbox"/>	Working group	<input checked="" type="checkbox"/>	Discrete issue	<input checked="" type="checkbox"/>
		Tanks, vehicles, and emergencies		Terminology	

# Executive summary

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## Context

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A full review of the Australian Dangerous Goods Code (the Code) has not been conducted for over a decade.

The Code is applicable across Australia, and adherence to it by all relevant parties ensures specific risks posed through transport of dangerous goods by land are effectively managed.

In 2020, transport and infrastructure ministers agreed for the NTC to conduct a full review of the Code. The NTC's responsibility for the Code's content and stakeholder engagement over several years, highlighted that the road and rail specific requirements of the Code in particular, do not fully support the smooth and safe movement of dangerous goods across borders and transport modes.

The purpose of the review, therefore, is to ensure that the Code is reflective of the Australian transport environment, draws upon road and rail mode specific concepts used elsewhere in the world where appropriate, and considers inclusion of explosives as regulated dangerous goods under the Code's requirements.

Given the scale of the review, the content of the code has been broken into a series of topics. This paper provides supplementary information on terminology used by papers from the tanks, vehicles and emergencies working group.

## Issues (or) themes

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### Chapter 1 – Project to Review the Australian Dangerous Goods Code

In November 2020, transport and infrastructure ministers approved the NTC's recommendation to conduct a comprehensive review of the Code.

The review seeks to better align Australia with international practices contained in the road and rail mode specific versions of the UN Model Regulations and will focus on improving transport of dangerous goods safety outcomes.

### Chapter 2 – Context of this paper

This chapter provides a brief outline of why this paper has been prepared.

### Chapter 3 – Receptacles and vehicle related terminology

ADR contains a similar system of terminology relating to tanks and vehicles as the Code, though it is more comprehensive than the current Code. This chapter explains how these definitions are interpreted for the purposes of the review.

### Chapter 5 – How tank provisions are laid out in ADR

ADR uses a specific document layout to divide provisions relating to certain tanks. This chapter explains this system.

## **Appendices**

This paper includes two appendices. Appendix A contains a diagrammatic comparison of the tank provisions in ADR and the Code. Appendix B contains relevant definitions from ADR.

## **Next steps**

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This paper contains supplementary information and is a guide to the way this terminology is used in the review working papers. Work to harmonise definitions between ADR and the Code will be carried out later in the review process.

There may be updates to this paper as needed to support the work of the tanks, vehicles and emergencies working group.

# 1 About this project

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## Key points

- In November 2020, transport and infrastructure ministers approved the NTC's recommendation to conduct a comprehensive review of the Australian Code for the Transport of Dangerous Goods by Road and Rail (the Code).
- Mode-specific requirements of the current code consist of a repository of often disjointed, contradictory requirements that fall apart when closely examined.
- The review seeks to better align Australia with international practices as set out in the ADR and RID.
- The review will focus on outcomes that serve the best interest of all parties involved in the transport of dangerous goods.
- Given the scale of the review, the content of the code has been broken into a series of topics, each allocated to a topic specific working group.

## 1.1 Project objectives

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In November 2020, transport and infrastructure ministers approved the NTC's recommendation to conduct a comprehensive review of the Australian Code for the Transport of Dangerous Goods by Road and Rail (the Code). Ministers also supported the proposal to incorporate into the Code principles from both:

- the Agreement for the International Transport of Dangerous Goods by Road (ADR)
- the Agreement for the International Transport of Dangerous Goods by Rail (RID).

The ADR and RID are used extensively throughout Europe, Africa, and Asia. As with the Australian code, both the ADR and RID are based on the United Nations Recommendations on the Transport of Dangerous Goods - Model Regulations (UN Model Regulations). In general, the requirements of the ADR and RID are the same. They only differ where requirements need to apply specifically to either road transport or rail transport.

Stakeholder feedback over the years and a literature review of relevant materials suggests that the mode-specific requirements of the current code consist of a repository of often disjointed, contradictory requirements that fall apart when closely examined. In many instances, there was no supporting evidence or data for their introduction and there is no evidence that they have contributed to safer outcomes. The lack of consistency and cohesiveness in these requirements coupled with a lack of a framework for maintaining the mode-specific requirements results in a continuing cycle of ad-hoc, random amendments without consideration of the consequential inconsistencies or contradictions.

### Goal of the review

The goal of the review is to deliver a code that:

- addresses the specific risks of transport by land, while also recognising any risks unique to the Australian transport environment
- remains contemporary



- is aligned to international practices that support the smooth and safe movement of dangerous goods across borders and transport modes.

The review is focused on outcomes that serve the best interest of all parties involved in the transport of dangerous goods. This includes:

- parties that must meet the requirements
- parties that regulate and administer the requirements
- parties that must maintain the requirements.

The aim of the review is to deliver more than just a cohesive and contemporaneous code. We also aim to deliver a framework for making sure the Code remains up to date and aligned with international standards.

## 1.2 Background

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In 2020, the NTC released an issues paper on the land transport of dangerous goods. The paper focused on the legislative framework that supports the dangerous goods code. However, the responses we received highlighted several problems with the code itself.

A major concern raised in submissions centred on the Australia-specific chapters of the current code. The biennial maintenance cycle of the Code, which keeps it aligned to the UN Model Regulations, is appreciated. However, many submissions noted the Australia-specific chapters have not been reviewed or revised. Many of these chapters were carried over from the sixth edition of the Code (ADG 6), either in full or in part, without examination. They have not been critically reviewed for over 15 years and are now outdated. In the case of some requirements, no evidence base, or justification can be found to support their original introduction.

Industry and regulators also noted the Australian Explosives Code is outdated and has no responsible agency. They expressed a strong preference for the dangerous goods code to be expanded to include Class 1 Explosives, and for the Australian Explosives Code to be made obsolete.

After analysing the submissions received, the NTC made recommendations to infrastructure and transport ministers. All recommendations were endorsed, including the following:

### **Recommendation 4:**

Conduct a full review of the Australian Dangerous Goods Code to update outdated chapters, identify and correct translation errors, incorporate relevant ADR concepts and incorporate requirements for Class 1 and Division 6.2. Note: the technical requirements for Class 1 and Division 6.2 will be incorporated into the [ADG] Code but the legal requirements will not be incorporated into the regulations.

## 1.3 Approach

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A set of Review Principles has been developed to guide the review and give it the best chance of delivering the right outcome. These principles were developed with regard to the following key considerations:

- Impacts and benefits



- stakeholder engagement
- maintaining currency of the Code and associated model laws.

Given the scale of the review, the content of the code has been broken into a series of topics, each allocated to a topic specific working group.

This is a supplementary paper that explains the terminology and layout of provisions relating to tanks, bulk containers, packagings and vehicles under ADR. This paper is intended as a reference when reading future related consultation papers. Content from this document may be included as an appendix to consultation papers issued as a part of this review.

## 2 Context

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### Key points

- Formal definitions underpin the requirements in the Code.
- Unnecessary rewording of definitions can create problems both now and for the ongoing maintenance of the Code
- The ADR provides a more comprehensive treatment of tanks for dangerous goods transport than the current code.

### Definitions

Definitions are part of the underpinning framework and functionality of all dangerous goods requirements in the Code. To ensure related requirements work as they were intended, it's imperative that the definitions they rely on are not altered. What may appear to be simple wordsmithing of a definition can introduce contradictions, gaps, and confusion. It can also create problems for the ongoing maintenance of the Code.

For this reason, it's intended that the draft code use the definitions from the ADR, as written, wherever possible. While the intent is to keep definitions aligned to those in the ADR, it is recognised that some terminology in the ADR may require changing to better suit the Australian context. An example of this is the use of the term tube-vehicle in place of the ADR term battery-vehicle.

For ease of reading and understanding of future papers, this supplementary document uses the terminology from the ADR but with simplified explanations. The formal definitions are provided in Appendix B.

### Structure of requirements

This paper provides an overview of the way provisions relating to various tanks, tube-vehicles and MEGCs are laid out in the ADR, and how these compare to those in the current code. The ADR's presentation of requirements discussed in this paper are used throughout the ADR, wherever related requirements appear. It's intended to use this same approach in the proposed code. An understanding of this lay out will assist when reading future consultation papers

### Scope of this paper

This paper contains information common to all future papers that will be authored by the Tanks, Vehicles and Emergencies Working Group. It provides information relating to:

- Receptacles and vehicle related terminology
- The structure of tank related provisions in the ADR
- A comparison of the structure of tank provisions in the ADR vs the current code

This paper does not look at specific requirements for tanks, receptacles, or vehicles. These matters will be the subject of future discussion papers.

## 3 Receptacles and vehicle related terminology

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### Key points

- ADR provides a more comprehensive system of terms relating to the receptacles used for dangerous goods and the vehicles used to transport these receptacles.
- This section is a review of this terminology and indicates how it is used in the Code Review

The Tanks, Vehicles and Emergencies Working Group papers use the following terms in relation to the different types of tanks, vehicles, bulk containers, and packages. These descriptions are derived primarily from ADR.

The descriptions provided here are based on the definitions in the source documents but **are not definitions** and must not be used as such. A list of actual definitions from the ADR is contained in Appendix B.

### 3.1 Tanks for dangerous goods transport

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#### 3.1.1 Terminology used in these papers

The Tanks, Vehicles and Emergencies Working Group papers use the following terms in relation to the different types of tanks.

Term	Description
Tank	<p>This is the shell of the tank, and it also includes its service and structural equipment. When used alone, the term tank means a tank-container, portable tank, demountable tank, or fixed tank as defined in this Section, including tanks forming elements of tube-vehicles or MEGCs</p> <p>When used for the carriage of gases, it has a capacity of more than 450 litres.</p> <p>Service equipment is further defined as equipment for filling and discharge, breather, safety, heating, heat insulating and additive devices and measuring instruments.</p> <p>Structural equipment is further defined as the external or internal reinforcing, fastening, protective or stabilizing members of the shell.</p>
Fixed-tank	<p>A tank that is permanently attached to a vehicle (which then becomes a tank vehicle) or is an integral part of the frame of such vehicle. Such a tank cannot be detached from the vehicle (as for a demountable tank).</p>

Term	Description
Demountable tank	A tank that forms a part of the vehicle but is not permanently attached to the vehicle. It is not designed for the carriage of goods without breakage of load, and normally can only be handled when it is empty.
Tube-vehicle* (battery-vehicle)	<p>A vehicle containing elements which are linked to each other by a manifold and permanently fixed to the vehicle. This is a vehicle where a multiple-element gas container (MEGC) is permanently a part of the vehicle.</p> <p>The following elements are considered to be elements of a tube-vehicle: cylinders, tubes, bundles of cylinders (also known as frames), pressure drums as well as tanks destined for the carriage of gases with a capacity of more than 450 litres.</p>
Tank-container	<p>A container, not meeting the definition of a portable tank, comprising a shell and items of equipment, including the equipment to facilitate movement of the tank-container without significant change of attitude.</p> <p>A tank-container is capable of being handled while full.</p>
Multiple-element gas container (MEGC)	A unit containing elements which are linked to each other by a manifold and mounted on a frame. The following elements are considered to be elements of a multiple-element gas container: cylinders, tubes, pressure drums or bundles of cylinders as well as tanks for the carriage of gases having a capacity of more than 450 litres.
Portable tank	<p>A multimodal tank that is capable of being loaded and discharged without the need of removal of its structural equipment. It possesses stabilizing members external to the shell and is capable of being lifted when full. It is designed primarily to be loaded on to a vehicle or vessel and is equipped with skids, mountings, or accessories to facilitate mechanical handling.</p> <p>The most common example of a portable tank is an isotainer or isotank, but other designs may conform to this description.</p>
Receptacle	<p>This is the containment vessel for receiving and holding the dangerous goods, including any means of closing.</p> <p>For purposes related to consultation papers on tanks, bulk containers and vehicles, it is taken to refer to a tank or a bulk container.</p>

\* ADR uses the term battery-vehicle for these vehicles, though this term is easily confused with battery electric vehicles. The more common term in Australia is “tube trailer”, but this does not account for rigid vehicles. It is proposed to adopt the term tube-vehicle as a modification of the ADR terminology to cover the general case of these vehicles.

### 3.1.2 Terminology not likely to be carried over from ADR

ADR also provides for “tank swap bodies” which are defined as a tank-container. Preliminary investigations suggest that these are not found in Australia, and nor is this likely. As such they are likely to be excluded to avoid confusion.

### 3.1.3 Comparison of tank provisions in ADR and the Code

Appendix A contains a diagrammatic comparison of equivalent tank provisions in ADR and the current code. It is included to assist understanding of how these systems compare, and where there are provisions contained in ADR that are either limited or absent in the current code.

## 3.2 Bulk containers for dangerous goods transport

Under both ADR and the Code, the transport of unconsolidated solid dangerous goods in large receptacles falls under the concept of bulk transport. This transport occurs in containers that are specified with either BK1, BK2, or BK3 instructions in the dangerous goods list.

Term	Description
Bulk container	<p>This is a containment system (including any liner or coating) intended for the carriage of solid substances which are in direct contact with the containment system.</p> <p>Packagings, intermediate bulk containers (IBCs), large packagings and tanks are not included.</p>

A bulk container is:

- of a permanent character and accordingly strong enough to be suitable for repeated use;
- specially designed to facilitate the carriage of goods by one or more means of transport without intermediate reloading;
- fitted with devices permitting its ready handling;
- of a capacity of not less than 1.0 m<sup>3</sup>;

Examples of bulk containers are containers, offshore bulk containers, skips, bulk bins, ~~swap bodies~~, trough-shaped containers, roller containers, load compartments of vehicles.

### 3.3 Vehicle-related terminology

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The ADR designates the following vehicle types to vehicles complying with the relevant construction standards and technical specifications contained in Chapter 9.2 of the ADR

Term	Description
FL vehicle	This type of vehicle is required for the transport of flammable liquids, flammable gases, or concentrated hydrogen peroxide (> 60%) in fixed or demountable tanks greater than 1m <sup>3</sup> , or in tank containers or portable tanks greater than 3m <sup>3</sup> .
AT vehicle	This type of vehicle is required for the transport of other dangerous goods in fixed or demountable tanks greater than 1m <sup>3</sup> , or in tank containers or portable tanks greater than 3m <sup>3</sup> .
EX/II and EX/III vehicle	This type of vehicle is required for the transport of class 1 explosive substances and articles.

Items covered in the technical specifications for vehicles include:

- Electrical equipment and specifications, for example wiring requirements, battery isolation switch, lighting.
- Braking equipment, for example anti-lock braking and endurance braking systems
- Prevention of fire risks, for example fuel tanks, exhaust, hot components and heaters
- Speed limitation devices, coupling devices and other risks from the use of LNG as a fuel.

### 3.4 Transport in tanks, in bulk, and in packages

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ADR divides transport of dangerous goods into three broad categories. These definitions are drawn in part from ADR but have been consolidated for readability.

- Transport in tanks
  - This refers to transport of dangerous goods that occurs in portable tanks and ADR-compliant tanks. The materials transported in these tanks may be gases, liquids or solids.
- Transport in bulk
  - This refers to transport of solids that occurs in bulk containers. These solid substances are in direct contact with the containment system.
- Transport in packages
  - This refers to the transport of dangerous goods that occurs in packagings, large packagings, and intermediate bulk containers (IBCs). The term includes receptacles for gases as defined in this section as well as articles which, because of their size, mass or configuration may be carried unpackaged or carried in cradles, crates, or handling devices. The materials transported may be gases, liquids, or solids.

- Transport in bulk and transport in tanks are specifically excluded from this definition

Note: this definition is included here for completeness.

It is expected that the same (or broadly similar) definitions will be adopted as part of the code review.

While this system is superficially similar to the distinction between “packaged” and “bulk” transport that existed under edition 6 of the ADG Code, it is better aligned to the UN Model Regulations (UN MR) for dangerous goods transport and the International Maritime Dangerous Goods Code (IMDG). In moving from ADG 6 to ADG 7, Australia proposed full alignment to the UN but eventually chose to introduce the uniquely Australian concept of placardable unit, making receptacles with a capacity exceeding 500 kg/l their own category.



## 4 How tank provisions are laid out in ADR

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### Key points

- ADR formats certain tank provisions into columns to differentiate between types of tanks.
- This section explains how this system is used in ADR.

### 4.1 Division into columns

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In the chapters of ADR that relate to ADR tank transport (Chapters 4.3 and 6.8), provisions are laid out either as a single column, or as two columns.

Most of the provisions in these chapters apply to all tanks. However, certain provisions apply to tanks that are used as part of a vehicle (fixed tanks, demountable tanks, and tube vehicles), and others apply only to tanks that may be used intermodally (tank-containers and MEGCs).

To reflect these differences, most provisions are printed across the full width of the page, but where the provisions only apply to a subset, they are printed in columns.

These chapters (and this concept) do not apply to transport in portable tanks, UN MEGCs, or bulk containers.

#### 4.1.1 Full width provisions

The scope section of each of these chapters describe full width provisions as:

Provisions which take up the whole width of the page apply both to fixed tanks (tank-vehicles), demountable tanks and battery-vehicles, and to tank-containers, tank swap bodies and MEGCs. Provisions contained in a single column apply only to:

- fixed tanks (tank-vehicles), demountable tanks and tube-vehicles (left-hand column);
- tank-containers, ~~tank swap bodies~~ and MEGCs (right-hand column).

#### 4.1.2 Two column provisions

The scope section of each of these chapters describe sections split into two columns as:

These provisions apply to:

fixed tanks (tank-vehicles),  
demountable tanks and tube-vehicles

tank-containers, ~~tank swap bodies~~ and  
MEGCs

used for the carriage of gaseous, liquid, powdery or granular substances.

#### 4.1.3 Example (for illustration)

The example below is taken from Chapter 6.2 of ADR. It demonstrates how the different provisions are laid out, provisions highlighted:

- in yellow apply to fixed-tanks, demountable tanks, and tube-vehicles
- in green apply to tank-containers and MEGCs
- in Blue apply to fixed-tanks, demountable tanks, tube-vehicles, tank-containers and MEGCs

6.8.2.1.3 The walls of the shells shall have at least the thickness specified in

6.8.2.1.17 to 6.8.2.1.21

6.8.2.1.17 to 6.8.2.1.20.

6.8.2.1.4 Shells shall be designed and constructed in accordance with the requirements of standards listed in 6.8.2.6 or of a technical code recognized by the competent authority, in accordance with 6.8.2.7, in which the material is chosen and the shell thickness determined taking into account maximum and minimum filling and working temperatures, but the following minimum requirements of 6.8.2.1.6 to 6.8.2.1.26 shall be met.

## 5 Next steps

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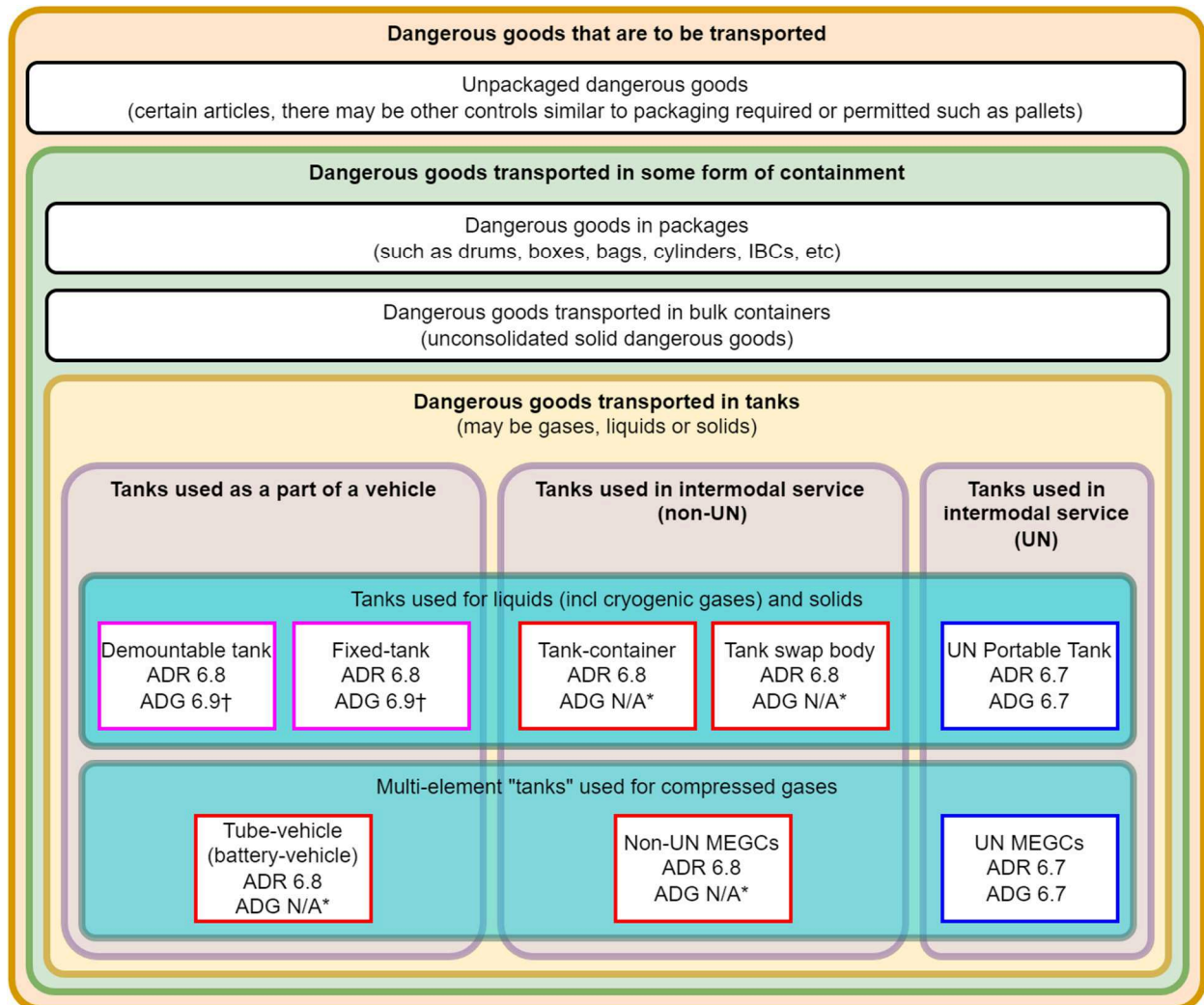
As this is a supplementary paper on terminology, consultation is not required on its content. A comprehensive review of terminology will be taken as a part of the implementation process of the future Code.

This paper is intended for use as a reference document when reading future tank related consultation papers.

This paper may be updated if new information is received that requires an update.

# Appendix A Comparison of tank provisions in ADR and the Code

This diagram has been prepared to assist users to understand where ADR and the Code have corresponding provisions, and where those provisions may be missing or different.



† The current code includes information for these items, but they are not as detailed as in ADR.

\* The current code contains no provisions for these items, but they are included in ADR.

## Appendix B Relevant ADR definitions

This appendix contains relevant definitions from ADR. These definitions cannot be read independently of their context within ADR.

Term	Description
Battery-vehicle (tube-vehicle)	Means a vehicle containing elements which are linked to each other by a manifold and permanently fixed to this vehicle. The following elements are considered to be elements of a battery-vehicle: cylinders, tubes, bundles of cylinders (also known as frames), pressure drums as well as tanks destined for the carriage of gases as defined in 2.2.2.1.1 with a capacity of more than 450 litres.
Bulk container	<p>Means a containment system (including any liner or coating) intended for the carriage of solid substances which are in direct contact with the containment system. Packagings, intermediate bulk containers (IBCs), large packagings and tanks are not included.</p> <p>A bulk container is:</p> <ul style="list-style-type: none"><li>– of a permanent character and accordingly strong enough to be suitable for repeated use;</li><li>– specially designed to facilitate the carriage of goods by one or more means of transport without intermediate reloading;</li><li>– fitted with devices permitting its ready handling;</li><li>– of a capacity of not less than 1.0 m<sup>3</sup>;</li></ul> <p>Examples of bulk containers are containers, offshore bulk containers, skips, bulk bins, swap bodies, trough-shaped containers, roller containers, load compartments of vehicles</p> <p><b>NOTE:</b> This definition only applies to bulk containers meeting the requirements of Chapter 6.11.</p> <p><i>"Closed bulk container"</i> means a totally closed bulk container having a rigid roof, sidewalls, end walls and floor (including hopper-type bottoms). The term includes bulk containers with an opening roof, side or end wall that can be closed during carriage. Closed bulk containers may be equipped with openings to allow for the exchange of vapours and gases with air and which prevent under normal conditions of carriage the release of solid contents as well as the penetration of rain and splash water</p> <p><i>"Flexible bulk container"</i> means a flexible container with a capacity not exceeding 15 m<sup>3</sup> and includes liners and attached handling devices and service equipment</p> <p><i>"Sheeted bulk container"</i> means an open top bulk container with rigid bottom (including hopper-type bottom), side and end walls and a non-rigid covering;</p>

Term	Description
Cargo transport unit	Means a vehicle, a wagon, a container, a tank-container, a portable tank or an MEGC.
Carriage in bulk	Means the carriage of unpackaged solids or articles in vehicles, containers or bulk containers. The term does not apply to packaged goods nor to substances carried in tanks.
Container	<p>Means an article of transport equipment (lift van or other similar structure):</p> <ul style="list-style-type: none"> <li>– of a permanent character and accordingly strong enough to be suitable for repeated use;</li> <li>– specially designed to facilitate the carriage of goods, by one or more means of transport, without breakage of load;</li> <li>– fitted with devices permitting its ready stowage and handling, particularly when being transloaded from one means of transport to another;</li> <li>– so designed as to be easy to fill and empty;</li> <li>– having an internal volume of not less than 1 m<sup>3</sup>, except for containers for the carriage of radioactive material.</li> </ul>
	<p>In addition:</p> <p><i>"Small container"</i> means a container which has an internal volume of not more than 3 m<sup>3</sup>;</p> <p><i>"Large container"</i> means</p> <ul style="list-style-type: none"> <li>(a) A container which does not meet the definition of a small container;</li> <li>(b) In the meaning of the CSC, a container of a size such that the area enclosed by the four outer bottom corners is either <ul style="list-style-type: none"> <li>(i) at least 14 m<sup>2</sup> (150 square feet); or</li> <li>(ii) at least 7 m<sup>2</sup> (75 square feet) if fitted with top corner fittings;</li> </ul> </li> </ul> <p><i>"Closed container"</i> means a totally enclosed container having a rigid roof, rigid side walls, rigid end walls and a floor. The term includes containers with an opening roof where the roof can be closed during transport;</p> <p><i>"Open container"</i> means an open top container or a platform based container;</p> <p><i>"Sheeted container"</i> means an open container equipped with a sheet to protect the goods loaded;</p> <p>A <i>"swap body"</i> is a container which, in accordance with EN 283:1991 has the following characteristics:</p>

Term	Description
	<ul style="list-style-type: none"> <li>– from the point of view of mechanical strength, it is only built for carriage on a wagon or a vehicle on land or by roll-on roll-off ship;</li> <li>– it cannot be stacked;</li> </ul> <p>It can be removed from vehicles by means of equipment on board the vehicle and on its own supports, and can be reloaded.</p>
Demountable tank	Means a tank, other than a fixed tank, a portable tank, a tank-container or an element of a battery-vehicle or a MEGC which has a capacity of more than 450 litres, is not designed for the carriage of goods without breakage of load, and normally can only be handled when it is empty.
Fixed tank	Means a tank having a capacity of more than 1 000 litres which is permanently attached to a vehicle (which then becomes a tank-vehicle) or is an integral part of the frame of such vehicle.
Hermetically closed tank	<p>Means a tank that:</p> <ul style="list-style-type: none"> <li>– is not equipped with safety valves, bursting discs, other similar safety devices or vacuum valves; or</li> <li>– is equipped with safety valves preceded by a bursting disc according to 6.8.2.2.10, but is not equipped with vacuum valves.</li> </ul> <p>A tank intended for the carriage of liquid substances with a calculation pressure of at least 4 bar or intended for the carriage of solid substances (powdery or granular) regardless of its calculation pressure is also considered hermetically closed if it:</p> <ul style="list-style-type: none"> <li>– is equipped with safety valves preceded by a bursting disc according to 6.8.2.2.10 and vacuum valves, in accordance with the requirements of 6.8.2.2.3; or,</li> <li>– is not equipped with safety valves, bursting discs or other similar safety devices, but is equipped with vacuum valves, in accordance with the requirements of 6.8.2.2.3.</li> </ul>
Inspection body	Means an independent inspection and testing body approved by the competent authority.
Mobile explosives manufacturing unit (MEMU)	<p>Means a unit, or a vehicle mounted with a unit, for manufacturing and charging explosives from dangerous goods that are not explosives. The unit consists of various tanks and bulk containers and process equipment as well as pumps and related equipment.</p> <p>The MEMU may have special compartments for packaged explosives</p> <p><b>NOTE:</b> Even though the definition of MEMU includes the expression "manufacturing and charging explosives" the requirements for MEMUs apply only to carriage and not to manufacturing and charging of explosives.</p>



Term	Description
Multiple-element gas container (MEGC)	Means a unit containing elements which are linked to each other by a manifold and mounted on a frame. The following elements are considered to be elements of a multiple-element gas container: cylinders, tubes, pressure drums or bundles of cylinders as well as tanks for the carriage of gases as defined in 2.2.2.1.1 having a capacity of more than 450 litres.
Package	Means the complete product of the packing operation, consisting of the packaging or large packaging or IBC and its contents prepared for dispatch. The term includes receptacles for gases as defined in this section as well as articles which, because of their size, mass or configuration may be carried unpackaged or carried in cradles, crates or handling devices. Except for the carriage of radioactive material, the term does not apply to goods which are carried in bulk, nor to substances carried in tanks.
Portable tank	Means a multimodal tank having, when used for the carriage of gases as defined in 2.2.2.1.1, a capacity of more than 450 litres in accordance with the definitions in Chapter 6.7 or the IMDG Code and indicated by a portable tank instruction (T-Code) in Column (10) of Table A of Chapter 3.2.
Receptacle	Means a containment vessel for receiving and holding substances or articles, including any means of closing. This definition does not apply to shells (see also "Cryogenic receptacle", "Inner receptacle", "Pressure receptacle", "Rigid inner receptacle" and "Gas cartridge").
Service equipment	<ul style="list-style-type: none"> <li>(a) Of the tank means filling and discharge, breather, safety, heating, heat insulating and additive devices and measuring instruments;</li> <li>(b) Of the elements of a battery-vehicle or of a MEGC means filling and discharge devices, including the manifold, safety devices and measuring instruments;</li> <li>(c) Of an IBC means the filling and discharge devices and any pressure-relief or venting, safety, heating and heat insulating devices and measuring instruments.</li> </ul>
Shell	(For tanks), means the part of the tank which retains the substance intended for carriage, including openings and their closures, but does not include service equipment or external structural equipment.
Structural equipment	<ul style="list-style-type: none"> <li>(a) For tanks of a tank-vehicle or demountable tank, means the external or internal reinforcing, fastening, protective or stabilizing members of the shell;</li> <li>(b) For tanks of a tank-container, means the external or internal reinforcing, fastening, protective or stabilizing members of the shell;</li> <li>(c) For elements of a battery-vehicle or an MEGC means the external or internal reinforcing, fastening, protective or stabilizing members of the shell or receptacle;</li> </ul>

Term	Description
	<p>(d) For IBCs other than flexible IBCs means the reinforcing, fastening, handling, protective or stabilizing members of the body (including the base pallet for composite IBCs with plastics inner receptacle).</p> <p><b>NOTE:</b> For portable tanks, see Chapter 6.7.</p>
Swap body	see "Container"
Tank	<p>Means a shell, including its service and structural equipment. When used alone, the term tank means a tank-container, portable tank, demountable tank or fixed tank as defined in this Section, including tanks forming elements of battery-vehicles or MEGCs (see also "Demountable tank", "Fixed tank", "Portable tank" and "Multiple-element gas container").</p> <p><b>NOTE:</b> For portable tanks, see 6.7.4.1.</p>
Tank-container	Means an article of transport equipment meeting the definition of a container, and comprising a shell and items of equipment, including the equipment to facilitate movement of the tank-container without significant change of attitude, used for the carriage of gases, liquid, powdery or granular substances and, when used for the carriage of gases as defined in 2.2.2.1.1, having a capacity of more than 0.45 m <sup>3</sup> (450 litres).
Tank swap body	is considered to be a tank-container
Tank-vehicle	Means a vehicle built to carry liquids, gases or powdery or granular substances and comprising one or more fixed tanks. In addition to the vehicle proper, or the units of running gear used in its stead, a tank-vehicle comprises one or more shells, their items of equipment and the fittings for attaching them to the vehicle or to the running-gear units.
Transport unit	Means a motor vehicle without an attached trailer, or a combination consisting of a motor vehicle and an attached trailer.
Vehicle	see "Battery-vehicle", "Closed vehicle", "Open vehicle", "Sheeted vehicle" and "Tank-vehicle"

**National Transport Commission**

Level 3/600 Bourke Street

Melbourne VIC 3000

Ph: (03) 9236 5000

Email: [enquiries@ntc.gov.au](mailto:enquiries@ntc.gov.au)

**[www.ntc.gov.au](http://www.ntc.gov.au)**

