

Checklist ADR13A

Version V2-R-770



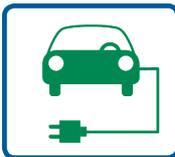
www.lithium-battery-service.com

UN Number	Proper Shipping Name	
UN 3171	Battery powered vehicle	
Transport Mode	Valid from	Valid till
	01.01.2023	31.12.2024 Transitional Period until 30.06.2025
Regulation	Source	
ADR 2023	Special Provision 666/667	

Transportcase	Content Details
Type:	Quantity per package:
Vehicle	unlimited
Version:	Weight per package:
Vehicle, battery-powered only	unlimited
Parameter:	Number per consignment:
not specified	unlimited

Manufactured according to Quality Management Programme?	Yes	UN Test Series according to 38.3 passed successfully?	Yes
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Examples thereto are	
	<ul style="list-style-type: none"> · electrically powered automobiles · motor bikes · scooters · three- or four-wheeled vehicles or motor bikes · ebikes · wheelchairs · riding mowers · boats · aircraft

For battery-powered vehicles of UN 3171 since ADR 2019 the following Special Provisions are applicable. Their original texts are printed here:

SP 388: Definiton Vehicle and UN 38.3 Test for batteries

SP 666: Exception under certain conditions

SP 667: Exception from UN 38.3 Test for batteries

SP 669: Regulation for trailer

There is the basic exception from the ADR according to SP 666.

One requirement is the proof of the successfully passed UN 38.3 Test for the batteries and the manufacture according to Quality Management Program (Exceptions in SP 667).

Text of SP 388:

UN No. 3166 entries apply to vehicles powered by internal combustion engines with flammable liquid, flammable gas or fuel cells.

Vehicles powered by a fuel cell engine must be assigned to the entries UN 3166 VEHICLE, FUEL CELL, FLAMMABLE GAS POWERED or UN 3166 VEHICLE, FUEL CELL, FLAMMABLE LIQUID POWERED, as appropriate. These entries include hybrid electric vehicles powered by both a fuel cell and an internal combustion engine with wet batteries, sodium batteries, lithium metal batteries or lithium ion batteries, carried with the battery (ies) installed.

Other vehicles which contain an internal combustion engine must be assigned to the entries

UN 3166 VEHICLE, FLAMMABLE GAS POWERED or UN 3166 VEHICLE, FLAMMABLE LIQUID POWERED, as appropriate. These entries include hybrid electric vehicles powered by both an internal combustion engine and wet batteries, sodium batteries, lithium metal batteries or lithium ion batteries, carried with the battery(ies) installed.

If a vehicle is powered by a flammable liquid and a flammable gas internal combustion engine, it must be assigned to UN 3166 VEHICLE, FLAMMABLE GAS POWERED. Entry UN 3171 only applies to vehicles powered by wet batteries, sodium batteries, lithium metal batteries or lithium ion batteries and equipment powered by wet batteries or sodium batteries carried with these batteries installed.

For the purpose of this special provision, vehicles are self-propelled apparatus designed to carry one or more persons or goods. Examples of such vehicles are cars, motorcycles, scooters, three- and four-wheeled vehicles or motorcycles, trucks, locomotives, bicycles (pedal cycles with a motor) and other vehicles of this type (e.g. self-balancing vehicles or vehicles not equipped with at least one seating position), wheelchairs, lawn tractors, selfpropelled farming and construction equipment, boats and aircraft. This includes vehicles carried in a packaging. In this case some parts of the vehicle may be detached from its frame to fit into the packaging.

Examples of equipment are lawnmowers, cleaning machines or model boats and model aircraft. Equipment powered by lithium metal batteries or lithium ion batteries must be assigned to the entries

UN 3091 LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT or UN 3091 LITHIUM METAL BATTERIES PACKED WITH EQUIPMENT or UN 3481 LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT or UN 3481 LITHIUM ION BATTERIES PACKED WITH EQUIPMENT, as appropriate.

Lithium ion batteries or lithium metal batteries installed in a cargo transport unit and designed only to provide power external to the cargo transport unit shall be assigned to the entry UN 3536 LITHIUM BATTERIES INSTALLED IN CARGO TRANSPORT UNIT lithium ion batteries or lithium metal batteries.

Dangerous goods, such as batteries, airbags, fire extinguishers, compressed gas accumulators, safety devices and other integral components of the vehicle

that are necessary for the operation of the vehicle or for the safety of its operator or passengers, must be securely installed in the vehicle and are not otherwise subject to ADR. However lithium batteries must meet the provisions of 2.2.9.1.7, except as otherwise provided for in special provision 667.

Where a lithium battery installed in a vehicle or equipment is damaged or defective, the vehicle or equipment must be carried in accordance with the conditions defined in special provision 667 (c).

Text SP 666

Vehicles and battery powered equipment of UN number 3166 or 3171, referred to by special provision 388, when carried as a load, as well as any dangerous goods they contain that are necessary for their operation or the operation of their equipment, **are not subject to any other provisions of ADR, provided the following conditions are met:**

(a) For liquid fuels, any valves between the engine or equipment and the fuel tank must be closed during carriage unless it is essential for the equipment to remain operational. Where appropriate, the vehicles must be loaded upright and secured against falling over.

(b) For gaseous fuels, the valve between the gas tank and engine must be closed and the electric contact open.

(c) Metal hydride storage systems must be approved by the competent authority of the country of manufacture. If the country of manufacture is not a contracting party to ADR the approval must be recognized by the competent authority of a contracting party to ADR.

(d) The provisions of (a) and (b) do not apply to vehicles which are empty of liquid or gaseous fuels.

Note 1: A vehicle is considered to be empty of liquid fuel when the liquid fuel tank has been drained and the vehicle cannot be operated due to a lack of fuel. Vehicle components such as fuel lines, fuel filters and injectors do not need to be cleaned, drained or purged to be considered empty of liquid fuels. In addition, the liquid fuel tank does not need to be cleaned or purged.

Note 2: A vehicle is considered to be empty of gaseous fuels when the gaseous fuel tanks are empty of liquid (for liquefied gases), the pressure in the tanks does not exceed 2 bar and the fuel shut-off or isolation valve is closed and secured.

Transitional provision 1.6.1.43

Vehicles registered or brought into service before 1 July 2017, as defined in special provisions 240, 385 and 669 of Chapter 3.3, and their equipment intended for use during carriage, which conform to the requirements of ADR applicable until 31 December 2016 but containing lithium cells and batteries which do not conform to the requirement of 2.2.9.1.7 may continue to be carried as a load in accordance with the requirements of special provision 666 of Chapter 3.3.

Text SP 667

(a) The provisions of 2.2.9.1.7 (a) do not apply when pre-production prototype lithium cells or batteries or lithium cells or batteries of a production run, consisting of not more than 100 cells or batteries, are installed in the vehicle, engine or machinery;

(b) The provisions of 2.2.9.1.7 do not apply to lithium cells or batteries installed in damaged or defective vehicles, engine, machinery or article. In such cases the following conditions must be met:

(i) If the damage or defect has no significant impact on the safety of the cell or battery, damaged and defective vehicles, engines or machinery, may be carried under the conditions defined in special provisions 363 or 666, as appropriate;

(ii) If the damage or defect has a significant impact on the safety of the cell or battery, the lithium cell or battery must be removed and carried according to special provision 376.

However if it is not possible to safely remove the cell or battery or it is not possible to verify the status of the cell or battery, the vehicle, engine or machinery may be towed or carried as specified in (i)."

(c) The procedures described in (b) also apply to damaged lithium cells or batteries in vehicles, engines or machinery.

Text SP 669

A trailer fitted with equipment, powered by a liquid or gaseous fuel or an electric energy storage and production system, that is intended for use during carriage operated by this trailer as a part of a transport unit, shall be assigned to UN numbers 3166 or 3171 and be subject to the same conditions as specified for these UN numbers, when carried as a load on a vehicle, provided that the total capacity of the tanks containing liquid fuel does not exceed 500 litres.

Transitional period in 1.6.1.43:

Die in den Sondervorschriften 388 und 669 des Kapitels 3.3 definierten Fahrzeuge, die vor dem 1. Juli 2017 zum Verkehr zugelassen oder in Betrieb genommen wurden, sowie deren Einrichtungen, die für eine Verwendung während der Beförderung bestimmt sind, die den bis zum 31. Dezember 2016 geltenden Vorschriften des ADR entsprechen, jedoch Lithiumzellen und -batterien enthalten, die den Vorschriften des Absatzes 2.2.9.1.7 nicht entsprechen, dürfen in Übereinstimmung mit den Vorschriften der Sondervorschrift 666 des Kapitels 3.3 weiterhin als Ladung befördert werden.“