

**First Meeting of the Joint Meeting's Working Group on the
Transport of Dangerous Wastes**

**Summary of existing specific requirements of the RID/ADR on the
Transport of Dangerous Wastes**

This document will show all requirements of the RID/ADR which apply to dangerous wastes which are transported as dangerous goods.

1. In accordance with 1.2.1 wastes are defined as:
“Substances, solutions, mixtures or articles for which no direct use is envisaged but which are transported for reprocessing, dumping, elimination by incineration or other methods of disposal.”
2. In accordance with 1.2.1 Vacuum-operated waste tanks are defined as:
“A fixed tank, demountable tank, tank-container or tank swap body primarily used for the carriage of dangerous wastes, with special constructional features and/or equipment to facilitate the loading and unloading of wastes as specified in Chapter 6.10. A tank which fully complies with the requirements of Chapter 6.7 or 6.8 is not considered to be a vacuum-operated waste tank.”
3. The “Classification of substances, including solutions and mixtures (such as preparations and wastes), not mentioned by name“ will occur in accordance with 2.1.3.
4. In accordance with 2.1.3.5.2 it is not necessary to carry out the data for classification “if this determination is not possible without disproportionate cost or effort (as for some kinds of wastes)“. In that case “the substance, solution or mixture shall be classified in the class of the component presenting the major hazard.”
5. In accordance with 2.1.3.9 „wastes that do not meet the criteria for classification in classes 1 to 9 but are covered by the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal may be carried under UN Nos. 3077 or 3082.“
6. The requirements of transport of „Medical or clinical wastes“ are described in 2.2.62.1.11. They will not be shown in this document cause they are special kind of wastes.
7. In accordance with 2.2.8.2.2 chemically unstable mixtures of spent sulphuric acid and mixtures of residual sulphuric and nitric acid are not permitted for carriage.

8. The following UN numbers are dealing with specific wastes:
- UN 1374 FISH MEAL (FISH SCRAP), UNSTABILIZED, Class 4.2, packing group III
 - UN 1826 NITRATING ACID MIXTURE; SPENT, with more than 50% nitric acid, Class 8 + 5.1, packing group I
 - UN 1826 NITRATING ACID MIXTURE; SPENT, with not more than 50% nitric acid, Class 8, packing group II
 - UN 1906 SLUDGE ACID, Class 8, packing group II
 - UN 1932 ZIRCONIUM SCRAP, Class 4.2, packing group III
 - UN 2002 CELLULOID, SCRAP, Class 4.2, packing group III
 - UN 3291 CLINICAL WASTE, UNSPECIFIED, N.O.S. or (BIO) MEDICAL WASTE, N.O.S. or REGULATED MEDICAL WASTE, N.O.S., Class 6.2, packing group II
9. The following special provisions include requirements for carriage of dangerous wastes:
- Special provision 327 (from 01 January 2007):
“Waste aerosols consigned in accordance with 5.4.1.1.3 may be carried under this entry for the purposes of reprocessing or disposal. They need not be protected against inadvertent discharge provided that measures to prevent dangerous build up of pressure and dangerous atmospheres are addressed. Waste aerosols, other than those leaking or severely deformed, shall be packed in accordance with packing instruction P003 and special provision PP87, or packing instruction LP02 and special packing provision L2. Leaking or severely deformed aerosols shall be carried in salvage packagings provided appropriate measures are taken to ensure there is no dangerous build up of pressure.
NOTE: For maritime carriage, waste aerosols shall not be carried in closed containers.“
 - Special provision 502:
“... and UN 2002 celluloid scrap are substances of Class 4.2.“
This special provision applies to UN 2000 ZELLULOID amongst other UN numbers.
 - Special provision 598:
“The following are not subject to the requirements of RID/ADR:
(a) New storage batteries when:
 - ...
(b) Used storage batteries when:
 - their cases are undamaged;
 - they are secured in such a way that they cannot leak, slip, fall or be damaged, e.g. by stacking on pallets;
 - there are no dangerous traces of alkalis or acids on the outside of the articles;
 - they are protected against short circuits.“
This special provision applies to UN numbers for batteries (UN 2794, 2795, 2800 and 3028).
 - Special provision 636:
(a) Used lithium cells and batteries collected and presented for carriage for disposal between the consumer collecting point and the intermediate processing facility, together with other non-lithium cells or batteries or

alone, are not subject to the other provisions of ADR if they meet the following conditions:

- (i) The gross mass of each lithium cell or battery does not exceed 250 g;
- (ii) The provisions of packing instruction P903b) (2) are complied with.
- (b) Cells contained in equipment shall not be capable of being discharged during carriage to the extent that the open circuit voltage falls below 2 volts or two thirds of the voltage of the undischarged cell, whichever is the lower;
- (c) Packages containing used cells or batteries in unmarked packagings shall bear the inscription: "Used lithium cells".

This special provision applies to UN numbers 3090 and 3091 (Lithium batteries or Lithium batteries in contained in equipment).

- Special provision 650:
“Waste consisting of packaging residues, solidified residues and liquid residues of paint may be carried under the conditions of packing group II. In addition to the provisions of UN No. 1263 packing group II, the waste may also be packed and carried as follows:

- (a) The waste may be packed in accordance with packing instruction P002 of 4.1.4.1 or to packing instruction IBC06 of 4.1.4.2;
- (b) The waste may be packed in flexible IBCs of types 13H3, 13H4 and 13H5 in overpacks with complete walls;
- (c) Testing of packagings and IBCs indicated under (a) or (b) may be carried out in accordance with the requirements of Chapters 6.1 or 6.5, as appropriate, in relation to solids, at the packing group II performance level. The tests shall be carried out on packagings and IBCs, filled with a representative sample of the waste, as prepared for carriage;
- (d) Carriage in bulk in sheeted **vehicles/wagons, movable roof wagons**, closed containers or sheeted large containers, all with complete walls is allowed. The body of **vehicles/wagons** or containers shall be leakproof or rendered leakproof, for example by means of a suitable and sufficiently stout inner lining;
- (e) If the waste is carried under the conditions of this special provision, the goods shall be declared in accordance with 5.4.1.1.3 in the **transport document/consignment note**, as follows: "WASTE, UN 1263 PAINT, 3, II".“

This special provision applies to UN 1263 PAINT or PAINT RELATED MATERIAL.

10. In Chapter 4.1 packing instructions for carriage of used batteries will be find:

- packing instruction P 801:

P801	PACKING INSTRUCTION	P801
This instruction applies to new and used batteries assigned to UN Nos. 2794, 2795 or 3028.		
The following packagings are authorized, provided the general provisions of 4.1.1 and 4.1.3 are met:		
(1) Rigid outer packagings;		
(2) Wooden slatted crates;		
(3) Pallets.		

Additional requirements:

1. Batteries shall be protected against short circuits.
2. Batteries stacked shall be adequately secured in tiers separated by a layer of non conductive material.
3. Battery terminals shall not support the weight of other superimposed elements.
4. Batteries shall be packaged or secured to prevent inadvertent movement. Any cushioning material used shall be inert.

- packing instruction P 801a:

P801a

PACKING INSTRUCTION

P801a

This instruction applies to used batteries of UN Nos. 2794, 2795, 2800 and 3028. Stainless steel or solid plastics battery boxes of a capacity of up to 1 m³ are authorized provided the following provisions are met:

- (1) The battery boxes shall be resistant to the corrosive substances contained in the storage batteries;
- (2) Under normal conditions of carriage, no corrosive substance shall leak from the battery boxes and no other substance (e.g. water) shall enter the battery boxes. No dangerous residues of corrosive substances contained in the storage batteries shall adhere to the outside of the battery boxes;
- (3) The battery boxes shall not be loaded with storage batteries to a height greater than the height of their sides;
- (4) No storage battery containing substances or other dangerous goods which may react dangerously with one another shall be placed in a battery box;
- (5) The battery boxes shall be either:
 - (a) covered; or
 - (b) carried in closed or sheeted vehicles or containers.

- packing instruction P 903a:

P903 a

PACKING INSTRUCTION

P903 a

This instruction applies to used cells and batteries of UN Nos. 3090 and 3091. The following packagings are authorized, provided the general provisions of 4.1.1 and 4.1.3 are met:

Packagings conforming to the packing group II performance level. on-approved packagings shall, however, be permitted provided that,

- they meet the general provisions of 4.1.1 and 4.1.3;
- the cells and batteries are packed and stowed so as to prevent any risk of short circuits;
- the packages weigh not more than 30 kg.

Additional requirement:

Batteries shall be protected against short circuit.

- packing instruction P 903b:

P 903b	PACKING INSTRUCTION	P 903b
<p>This instruction applies to used cells and batteries of UN Nos. 3090 and 3091. Used lithium cells and batteries, with a gross mass of not more than 250 g collected for disposal, together with other used non-lithium batteries or alone, may be carried, without being individually protected, under the following conditions:</p> <p>(1) In 1H2 drums or 4H2 boxes conforming to the packing group II performance level for solids;</p> <p>(2) In collecting trays with a gross mass of less than 30 kg made from non-conducting material meeting the general conditions of 4.1.1.1, 4.1.1.2 and 4.1.1.5 to 4.1.1.8.</p> <p>Additional requirements:</p> <p>The empty space in the packaging shall be filled with appropriate cushioning material so as to restrict the relative movements of the batteries during carriage. Hermetically sealed packagings shall be fitted with a venting device according to 4.1.1.8. The venting device shall be so designed that an overpressure caused by gases does not exceed 10 kPa.</p>		

11. Chapter 4.5 describe the requirements for “USE OF VACUUM OPERATED WASTE TANKS“.
12. In accordance with 5.4.1.1.3 the requirements about the information in the **transport document/consignment note** are as follows:
“If waste containing dangerous goods (other than radioactive wastes) is being carried, the UN number and the proper shipping name shall be preceded by the word "WASTE", unless this term is part of the proper shipping name, e.g.:
 - “WASTE, UN 1230 METHANOL, 3 (6.1), II”, or
 - “WASTE, METHANOL, 3 (6.1), UN 1230, II“ or
 - “WASTE, UN 1993 FLAMMABLE LIQUID, N.O.S. (toluene and ethyl alcohol), 3, II“ or
 - “WASTE, FLAMMABLE LIQUID, N.O.S. (toluene and ethyl alcohol), 3, UN 1993, II“.
13. Chapter 6.10 describe the requirements for “REQUIREMENTS FOR THE CONSTRUCTION, EQUIPMENT, TYPE APPROVAL, INSPECTION AND MARKING OF VACUUM-OPERATED WASTE TANKS“.
14. In 7.3.3 the special provisions for carriage of dangerous goods in bulk are described. The following special provisions are dealing with the carriage of dangerous wastes:
 - **VV4 (ADR)/VW4 (RID)**
“Carriage in bulk is permitted in **closed or sheeted vehicles with a metal body /sheeted metal wagons, movable-roof metal wagons, and** in closed metal containers or in sheeted large metal containers. For UN Nos. 2008, 2009, 2210, 2545, 2546, 2881, 3189 and 3190, only carriage in bulk of solid waste is permitted.“
 - **VV9b (ADR)**
“Carriage in bulk of full loads (if Class 8, only for wastes) is permitted in

closed containers or in sheeted large containers with complete walls. For wastes of Class 8, containers shall be equipped with a suitable and sufficiently stout inner lining.“

This special provision applies to substances of Class 6.1 and 8 of packing group III.

- **VV9 (ADR 2007)/VW9 (RID)**

“Carriage in bulk is permitted, **as a full load, in sheeted vehicles, closed containers or in sheeted large containers with complete walls**/in sheeted wagons or in sheeted large containers, in movable-roof wagons or in closed containers.”

For substances of Class 8, the **body of the vehicle**/wagons or containers shall be equipped with a suitable and sufficiently stout inner lining.“

This special provision applies to UN 1794 LEAD SULPHATE, Class 8, packing group II, UN 2506 AMMONIUM HYDROGEN SULPHATE, Class 8, packing group II and UN 2509 POTASSIUM HYDROGEN SULPHATE, Class 8, packing group II as well as for substances of Class 6.1 and 8 of packing group III.

- **VV14 (ADR)/VW14 (RID)**

- (1) Used batteries may be carried in bulk in specially equipped **vehicles/wagons** or containers. Large plastics containers shall not be permitted. Small plastics containers shall be capable of withstanding, when fully loaded, a drop from a height of 0.8 m onto a hard surface at -18 °C, without breakage.
- (2) The load compartments of **vehicles/wagons** or containers shall be of steel resistant to the corrosive substances contained in the batteries. Less resistant steels may be used when there is a sufficiently great wall thickness or a plastics lining/layer resistant to the corrosive substances.
The design of the load compartments of **vehicles/wagons** or containers shall take account of any residual currents and impact from the batteries.

NOTE: Steel exhibiting a maximum rate of progressive reduction of 0.1 mm per year under the effects of the corrosive substances may be considered as resistant.

- (3) It shall be ensured by means of constructional measures that there will be no leakage of corrosive substances from the load compartments of **vehicles/wagons** or containers during carriage. Open load compartments shall be covered. The cover shall be resistant to the corrosive substances.
- (4) Before loading, the load compartments of **vehicles/wagons** or containers, including their equipment, shall be inspected for damage. **Vehicles/Wagons** or containers with damaged load compartments shall not be loaded.
The load compartments of **vehicles/wagons** or containers shall not be loaded above the top of their walls.
- (5) No batteries containing different substances and no other goods liable to react dangerously with each other shall be present in the load compartments of vehicles or containers (see "Dangerous reaction" in 1.2.1).
During carriage no dangerous residue of the corrosive substances contained in the batteries shall adhere to the outer surface of the load compartments of **vehicles/wagons** or containers.

This special provision applies to batteries of UN 2794, UN 2795, UN 2800 and UN 3028.

- **VV15 (ADR)/VW (RID)**

“Carriage in bulk is permitted in **closed or sheeted vehicles/closed wagons, movable-roof wagons, sheeted wagons**, closed containers or sheeted large containers **with complete walls** for substances or mixtures (such as preparations or wastes) containing not more than 1000 mg/kg of substance to which this UN No is assigned.

The bodies of **vehicles/wagons** or containers shall be leakproof or rendered leakproof, for example by means of a suitable and sufficiently stout inner lining.

This special provision applies to polyhalogenated biphenyls and terphenyls (UN 2015, UN 3151, UN 3152 and UN 3432)