



Transporting empty dangerous goods containers and transport documentation

Does your company handle and transport empty dangerous goods (DG) containers?

Do your drivers, loaders and consignors recognise the hazards of part-filled DG packages and understand the associated requirements for transport?

Information is available from MSDS and chemical manufacturers specific to the goods being consigned. However, the request from a site to “return some empty containers to our supplier” is often problematic- what was in the containers originally, and have the valves and lids been secured?

Consider the hazards that can arise in transport of these empty or part-filled DG containers.

Gases of Division 2.1 e.g. LP Gas cylinders	Flammable vapours- are the cylinder valves secure?
Gases of Division 2.3 e.g. chlorine	Toxic release in a seatainer, oxidising materials it contacts
Class 3 liquids, e.g. petrol in tins	Flammable vapours, potentially already mixed with air
Class 4.3 solids e.g. aluminium phosphide	Absorbing atmospheric moisture to release toxic vapours
Class 5.1 solids, e.g. ammonium nitrate	Impressed into wood pallets or mixed with fuels causing fire
Class 6 liquids, e.g. cyanide solutions	Toxic liquid with toxic vapours- incompatible with acids
Class 8 liquids, e.g. hydrochloric acid	Corrosive vapours attacking fixtures or contaminating air
Class 9, e.g. expandable polystyrene beads	Flammable vapours leaking into unventilated van.

There are three broad categories describing DG package status:

- DG package = packaging plus contents
- Empty DG package = packaging plus residue
- DG-free package = packaging minus residue and gas-freed

It is recommended by DMP as a default position that you treat the transport of empty DG containers as per full containers until completely decontaminated and gas-freed. This ensures that the legal DG transport obligations, including transport documentation, are met.

The *Australian Dangerous Goods Code (ADG7)* specifies the requirements in Chapter 7.2 *Transport of Empty Packagings and Containers*:

- Empty, as yet unused, pre-labelled packagings should be identified as such on outer labels and transport documentation to avoid unnecessary emergency response
- Identify packages with DG residues on transport documentation
- Placardable units carrying residue are always considered a placard load
- Pressure vessels carrying Class 2 residue are treated as aggregate container quantity.

A host of restrictions in ADG7 apply to the transport of nominally empty DG storage vessels and advice should be obtained from the relevant industry technical experts prior to acceptance.

Transport documentation should identify empty placardable units- IBCs, Portable Tanks, Road Tankers- with the terms "EMPTY UNCLEANED" or "RESIDUE LAST CONTAINED" with the proper shipping name.

Transport documentation should also identify empty containers of individual capacity not exceeding 500 L or kg. Use the terms "EMPTY D/G DRUMS", "D/G RESIDUE", "EMPTY CYLINDERS" or similar relevant description and quantify the number of packages for each DG class.

It is important that your company drivers are trained in the requirements for empty DG containers, as often a return load from a minesite or a packaged goods depot are awaiting them. It is commonplace for residue-containing IBCs, 200 L drums and gas cylinders to be consolidated and despatched with the returning driver. Carrying a HB76 for the *Emergency Procedure Guide*, in addition to the required transport document, creates versatility in accepting DG loads.

Transport documents MUST accompany placard loads!

Problems have been found on-road with the transport documentation accompanying (or not accompanying) placard loads of dangerous goods. For combination loads such as double and triple trailer road trains, it seems that some operators/drivers have not ensured that transport documents have accompanied the trailers being transported on a short run to a road train assembly area, and that the documents for the entire combination have accompanied the first or last trailer being sent out, such that the others have been transported without documentation.

It is a statutory requirement that transport documents are on the vehicle carrying the goods, not on the truck in front or behind, or anywhere else. It is equally confusing in an emergency to encounter transport documents in a prime mover which don't relate to the trailers it is pulling.

Transport documents must identify the vehicle

Situations have also been encountered where transport documents for a combination were amalgamated and were not sorted or identifiable by trailer, such that it was impossible to identify which dangerous goods were on which trailer in the combination. It is essential that transport documentation be provided and organised such that it can rapidly be determined in an emergency what is on (or in) each trailer in a combination road vehicle.