

# Dangerous Goods in Excepted Quantities

Not all dangerous goods are permitted to be shipped under this limitation. Only the following may be shipped as Dangerous Goods in Excepted Quantities.

- a) Division 2.2 without a subsidiary risk but excluding UN1950, UN2037, UN2857 AND UN3164
- b) Class 3, all packing groups (PG), excluding those in PG I with a subsidiary risk and UN1204, UN2059 and UN3473.
- c) Class 4, PG II & III but excluding all self-reactive substances and UN2555, UN2556, UN2557, UN2907, UN3292 and UN3476.
- d) Division 5.1, PG II & III.
- e) Division 5.2, only when contained in a chemical kit, first aid kit or polyester resin kit.
- f) Division 6.1, except those having an inhalation toxicity of PG I.
- g) Class 8, PG II & III, but excluding UN1774, UN2794, UN2795, UN2800, UN2803, UN2809, UN3028 and UN3477.
- h) Class 9 other than carbon dioxide, solid (dry ice), genetically modified organisms and microorganisms, and aviation regulated liquid or solid. All articles are excluded.

## Classification and Identification

To ship a hazardous material under the Dangerous Goods in Excepted Quantities limitations you must first have the proper shipping name for your material as found in the dangerous goods list.

The Proper Shipping Name can be determined by the following methods:

- You can check the dangerous goods list to see if your material is specifically listed, i.e, “methanol”
- You can refer to your products material safety data sheet and see if they list a proper shipping name under the shipping info section.
- You can contact this office and we can help you in finding the proper shipping name.

With that information in hand you can turn to the blue pages in the IATA manual, the list of Dangerous Goods, look up your proper shipping name and checked in column F. You will find a code listed either E0, E1, E2, E3, E4, or E5. You then look at Table 2.7.A reproduced below:

Code	Maximum quantity per inner packaging	Maximum quantity per outer packaging
E0	Not permitted as Excepted Quantity	
E1	30g/30mL	1kg/1L
E2	30g/30mL	500g/500ml
E3	30g/30mL	300g/300mL
E4	1g/1mL	500g/500mL
E5	1g/1mL	300g/300ml

\* For gases, the volumes indicated for packaging refers to the water capacity.

\*\* Where different dangerous goods with different codes are combined, the total quantity allowed in the outer packaging must be limited to the most restrictive amount.

## Packing

You must pack your material the following way. It must be a “triple package” consisting of an inner packaging, a intermediate packaging both of which are inside a strong rigid outer packaging.

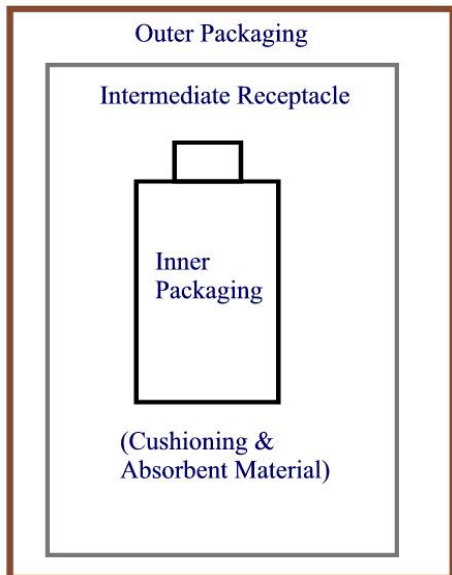
Inner packaging's must be constructed of glass, porcelain, stoneware, earthenware, metal or plastic (if used for liquids, must be at least 0.2mm thick). They must have their closure securely held in place by wire, tape or other positive means. Any receptacle having a neck with molded screw threads must have a leak proof threaded cap.

The intermediate packaging must contain cushioning & absorbent materials to ensure the inner packagings are secure packed and prevented from breakage and leakage under normal conditions of transport. The intermediate packaging must completely contain the contents incase of breakage or leakage, regardless of the package orientation. There should be sufficient absorbent material to absorb the entire contents of the package. The dangerous goods inside the package cannot react dangerously with the cushioning, absorbent material or the packaging.

The intermediate packaging must be securely packed in a strong rigid outer packaging of adequate size to apply all the necessary markings. Overpacks may be used and may also contain packages of dangerous goods or goods not subject to these regulations.

### Package Tests

To quote the IATA manual, “The completed package as prepared for transport , with inner packaging's filled to not less than 95% of their capacity for solids and 98% for liquids, must be capable of withstanding, as demonstrated by testing which is appropriately documented, with breakage or leakage of any inner packaging and without significant reduction in effectiveness”. The tests required are as follows:



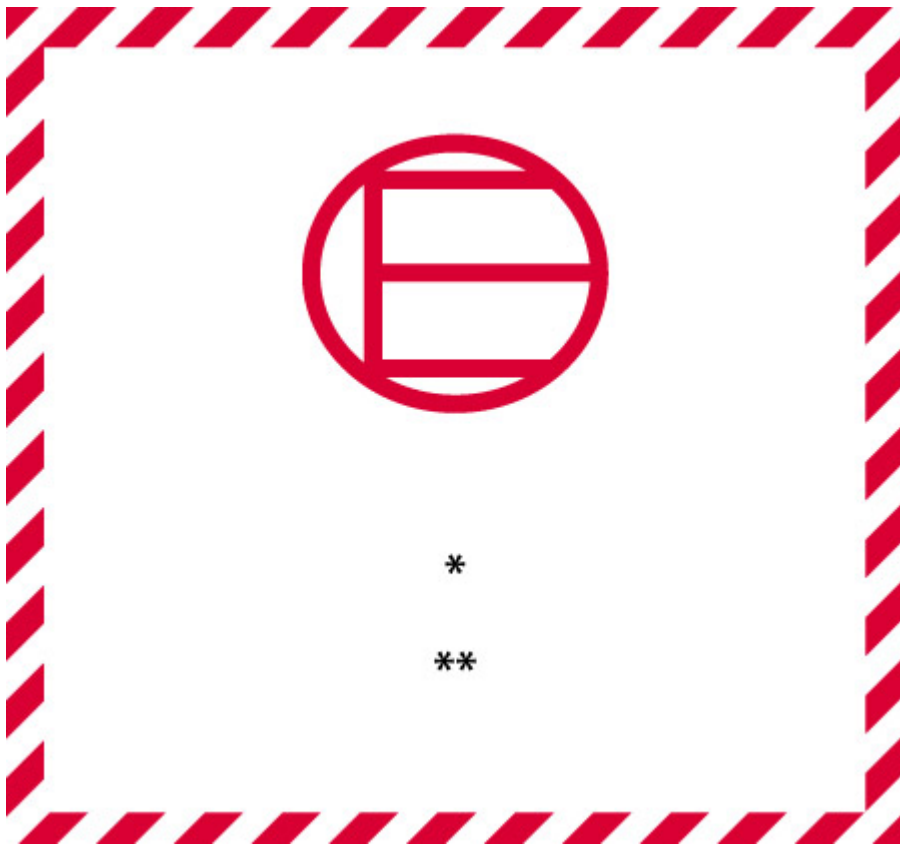
- (a) Drops onto a rigid, non-resilient flat horizontal surface from a height of 1.8m:
1. If it's a box, the box dropped:
    - Flat on the base
    - Flat on the top
    - Flat on the longest side
    - Flat on the shortest side
    - On a corner
  2. If it's a drum, it must be dropped:
    - Diagonally on the top chime, with center of gravity directly above the point of impact
    - Diagonally on the base chime
    - Flat on the side

- (b) A force applied to the top surface of the package for a duration of 24hrs equivalent to the total mass of identical packages if stacked to a height of 3 meters.

You may perform these tests on different but identical packages and with non-dangerous goods with the same physical characteristics (mass, grain size, etc...) replacing the dangerous goods to be carried.

Another way to make sure your package will pass these performance tests is to use an already certified and tested package. (a "un" rated package.) We can provide you with one for a small charge. Contact this office for more information.

## Marking



Packages containing excepted quantities of dangerous goods prepared according to these regulations

The primary hazard class (and division if applicable) of each of the dangerous goods contained in the package must be shown in the mark. Where the name of the consignor or consignee is not shown elsewhere on the package this information must be included within the mark.

\* - The class/division number must be shown in this location.

\*\* - The name of the shipper or the consignee must be shown in this location if not shown elsewhere on the package.

The minimum dimensions of the mark must be 100mm x 100mm. We can provide you with one of these markings if you contact this office.

An overpack containing dangerous goods in excepted quantities must display the markings shown above unless such markings on the individual packages in the overpack are clearly visible.

## Documentation

A shipper's declaration for Dangerous Goods is not required. If a document, such as a bill of lading or air waybill accompanies your shipment, then that document must include the statement "Dangerous Goods in Excepted Quantities" and indicate the number of packages.