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**COMMITTEE OF EXPERTS ON THE TRANSPORT OF  
DANGEROUS GOODS AND ON THE GLOBALLY  
HARMONIZED SYSTEM OF CLASSIFICATION  
AND LABELLING OF CHEMICALS**

Sub-Committee of Experts on the Globally  
Harmonized System of Classification  
and Labelling of Chemicals

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**UPDATING OF THE GLOBALLY HARMONIZED SYSTEM  
OF CLASSIFICATION AND LABELLING OF CHEMICALS (GHS)**

Definitions of means of containment

Note by the secretariat

**1. Introduction**

Chapter 1.2 of the GHS is intended to contain the definitions of terms used through the document. However, some of these terms, and in particular those related to designate means of containment (such as “container”, “package”, “tank” or “packaging”) are not defined even though they have a very specific meaning for some sectors (for instance, transport) while for other sectors they are used in a more general way.

For instance, the term “container” is used through the GHS as a synonym of “receptacle” or “vessel” covering all kinds of means of containment. With this general meaning it is used in Annex 3 of the GHS in sentences such as “Dispose of contents/container to...” or “keep only in original container”. The same term is used in paragraph 1.4.10.5.5.1 in the context of workplace labelling (“*Products falling within the scope of the GHS will carry the GHS label at the point where they are supplied to the workplace, and that label should be maintained on the supplied container in the workplace. The GHS label or label elements should also be used for workplace containers; [...] label information could be displayed in the work area, rather than on the individual containers; [...] where hazardous chemicals are transferred from an original supplier*”).

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*container into a workplace container or system; [...] where chemicals are produced in a workplace but are not packaged in containers intended for sale or supply.)”.*

In paragraph 1.4.3.3, also related to workplace labelling, the same concept is referred to as “containment (packaging)”: *“In the case of storage of chemicals, potential hazards are minimized by the containment (packaging) of the chemical...”*.

In transport of dangerous goods regulations the term “freight container”(for multimodal transport)/”container” (for inland transport) is clearly defined and it does not cover conventional packagings. With this specific meaning, it is used in paragraph 1.4.3.6.

Other terms used through the GHS for which a definition exist in transport of dangerous goods regulations are:

*Container*: Chapter 1.2 (definitions of “label” and “supplemental label information”); 1.4.3.6; 1.4.10.5.5.1; 3.10.1.6.4; Annex 3 (A3.4.3); Annex 4 (A4.3.10.1.2, A4.3.13.1.1, A4.3.13.1.2); Annex 6 (A6.5.8.2);

*Drum*: Annex 7, examples 4 and 7;

*Gas cylinders*: 1.4.10.4.2.2;

*Package*: 1.4.3.6; 1.4.10.4.2.3; 1.4.10.5.2 (d)(i); 1.5.1.2; 2.1.2.1 (d) and Figure 2.1.2; 2.8.2.1(e), 2.8.2.2 (b) and (g); 2.8.2.3 and decision logic 2.8; 2.11.2.1 (b) and (c) and Table 2.11.1; 2.15.1.3 (b) (g), 2.15.2.3 and decision logic 2.15; Annex 2, A2.11; Annex 6, A6.2.5; Annex 7, example 7;

*Packaging (and/or combination packaging, outer packaging, inner packaging, single packaging)*: Chapter 1.2 (definition of label); 1.4.10.4.2.2; 1.4.10.5.4.1; Chapter 1.5, Table 1.5.2 (para. 13); Annex 4, A4.3.7.2 (d)(ii); Annex 7: example 1;

*Receptacle*: 2.3.1 (definition of “aerosol”; 2.5.1 (definition of “gases under pressure”);

*Tank*: 1.4.3.6; 1.4.10.5.1, 4.1.2.7 and footnote 2 to A4.3.6.3.1(a);

*Vessel*: 1.4.10.5.5.1 and A4.3.7.2 (d) (ii).

In the context of labelling, it is important to use precise and well-defined terms, since the labelling/placarding elements required will differ from one type of containment to another.

## **2. Definitions of some of the containment systems used in transport of dangerous goods regulations**

For information of the Sub-Committee, the secretariat reproduces below a number of definitions which may be found in transport of dangerous goods regulations and which concern various containment systems:

## **2.1 Receptacle**

**Receptacle:** a containment vessel for receiving and holding substances or articles, including any means of closing;

**Inner receptacle:** a receptacle which require an outer packaging in order to perform its containment function;

## **2.2 Packaging**

**Packaging:** a receptacle and any other components or materials necessary for the receptacle to perform its containment function;

### **2.2.1 Related definitions**

**Inner packaging:** a packaging for which an outer packaging is required for transport;

**Intermediate packaging:** a packaging placed between inner packagings, or articles, and an outer packaging;

**Outer packaging:** the outer protection of a composite or combination packaging together with any absorbent materials, cushioning and any other components necessary to contain and protect inner receptacles or inner packagings;

### **2.2.2 Different types of packagings**

#### **2.2.2.1 Single packagings**

**Bag:** a flexible packaging made of paper, plastics film, textiles, woven material or other suitable materials;

**Box:** a packaging with complete rectangular or polygonal faces, made of metal, wood, plywood, reconstituted wood, fibreboard, plastics or other suitable material. Small holes for purposes such as ease of handling or opening, or to meet classification requirements, are permitted as long as they do not compromise the integrity of the packaging during transport;

**Drum:** a flat-ended or convex-ended cylindrical packaging made of metal, fibreboard, plastics, plywood or other suitable materials. This definition also includes packagings of other shapes e.g. round taper-necked packagings, or pail-shaped packagings. Wooden barrels or jerricans are not covered by this definition;

**Jerrican:** a metal or plastics packaging of rectangular or polygonal cross-section;

**Wooden barrel:** a packaging made of natural wood, of round cross-section, having convex walls, consisting of staves and heads and fitted with hoops.

**Composite packaging:** a packaging consisting of an outer packaging and an inner receptacle so constructed that the inner receptacle and the outer packaging form an integral packaging. Once assembled it remains thereafter an integrated single unit; it is filled, stored, transported and emptied as such;

#### 2.2.2.2 Packagings for gases

**Pressure receptacle:** collective term that includes cylinders, tubes, pressure drums, closed cryogenic receptacles and bundles of cylinders;

**Cylinder:** a transportable pressure receptacle of a water capacity not exceeding 150 litres;

**Tube:** a seamless transportable pressure receptacle of a water capacity exceeding 150 litres but not more than 3000 litres;

**Pressure drum:** a welded transportable pressure receptacle of a water capacity exceeding 150 litres and of not more than 1000 litres, (e.g. cylindrical receptacles equipped with rolling hoops, spheres on skids);

**Cryogenic receptacle:** a transportable thermally insulated receptacle for refrigerated liquefied gases, of a water capacity of not more than 1000 litres;

**Bundle of cylinders:** an assembly of cylinders that are fastened together and which are interconnected by a manifold and transported as a unit. The total water capacity shall not exceed 3000 litres except that bundles intended for the transport of toxic gases (Division 2.3 in transport) shall be limited to 1000 litres water capacity;

**Multiple-element gas container (MEGC):** a multimodal assembly of cylinders, tubes and bundles of cylinders which are interconnected by a manifold and which are assembled within a framework. The MEGC includes service equipment and structural equipment necessary for the transport of gases;

#### 2.2.2.3 Other packagings

**Crate:** an outer packaging with incomplete surfaces;

**Combination packaging:** a combination of packagings for transport purposes, consisting of one or more inner packagings secured in an outer packaging in accordance with 4.1.1.5 of the UN Model Regulations;

**Intermediate Bulk Container (IBC):** any rigid or flexible portable packaging, other than those specified in Chapter 6.1 of the UN Model Regulations, that:

- (a) has a capacity of:
  - (i) not more than 3.0 m<sup>3</sup> (3000 litres) for solids and liquids of packing groups II and III;

- (ii) not more than 1.5 m<sup>3</sup> for solids of packing group I when packed in flexible, rigid plastics, composite, fibreboard and wooden IBCs;
- (iii) not more than 3.0 m<sup>3</sup> for solids of packing group I when packed in metal IBCs;
- (iv) not more than 3.0 m<sup>3</sup> for radioactive material (Class 7 in transport);
- (b) is designed for mechanical handling;
- (c) is resistant to the stresses produced in handling and transport, as determined by tests.

**NOTE 1:** *The following types of IBCs are defined in Chapter 6.5 of the UN Model Regulations: Metal IBCs, Flexible IBCs, Rigid plastics IBCs Composite IBCs, Fibreboard IBCs and Wooden IBCs.*

**NOTE 2:** *IBC's which meet the requirements of Chapter 6.5 of the UN Model Regulations/RID/ADR are not considered to be tank-containers.*

**Large packaging:** a packaging consisting of an outer packaging which contains articles or inner packagings and which:

- (a) is designed for mechanical handling; and
- (b) exceeds 400 kg net mass or 450 litres capacity but has a volume of not more than 3 m<sup>3</sup>.

Large packagings may be made of metal, flexible material (plastics or paper), rigid plastics, fibreboard or wooden (for details, see Chapter 6.6 of the Model Regulations).

### **2.3 Package**

**Package:** the complete product of the packing operation, consisting of the packaging and its contents prepared for transport;

**Overpack:** an enclosure used by a single consignor to contain one or more packages and to form one unit for convenience of handling and stowage during transport. Examples of overpacks are a number of packages either:

- (a) Placed or stacked on to a load board such as a pallet and secured by strapping, shrink wrapping, stretch wrapping, or other suitable means; or
- (b) Placed in a protective outer packaging such as a box or crate.

### **2.4 Larger means of containment**

**Bulk container:** a containment system (including any liner or coating) intended for the transport of solid substances which is in direct contact with the containment system. Packagings, intermediate bulk containers (IBCs), large packagings and portable tanks are not included.

A bulk containers is:

- of a permanent character and accordingly strong enough to be suitable for repeated use;
- specially designed to facilitate the transport 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 freight containers (for multimodal transport), containers (for inland transport under ADR/RID/ADN), offshore bulk containers, skips, bulk bins, swap bodies, trough-shaped containers, roller containers, load compartments of vehicles/wagons.

**Freight container** (UN Model Regulations): an article of transport equipment that is of a permanent character and accordingly strong enough to be suitable for repeated use; specially designed to facilitate the transport of goods, by one or other modes of transport, without intermediate reloading; designed to be secured and /or readily handled, having fittings for these purposes, and approved in accordance with the International Convention for Safe Containers (CSC), 1972, as amended. The term "freight container" includes neither vehicle nor packaging. However a freight container that is carried on a chassis is included.

**Container** (ADR/RID/ADN): an article of transport equipment (lift van or other similar structure) 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 breakage of load; fitted with devices permitting its ready stowage and handling, particularly when being transloaded from one means of transport to another; so designed as to be easy to fill and empty.

**NOTE:** The term "container" under ADR/RID/ADN does not cover tank-containers (nor conventional packagings, IBCs or vehicles, wagons).

**Offshore bulk container:** a bulk container specially designed for repeated use for transport of dangerous goods to, from and between offshore facilities. An offshore bulk container is designed and constructed in accordance with the Guidelines for the approval of offshore containers handled in open seas specified by the International Maritime Organization (IMO) in document MSC/Circ.860.

**Tank** (UN Model Regulations): a portable tank, including a tank container, a road tank vehicle, a rail tank wagon or a receptacle to contain solids, liquids, or gases, having a capacity of not less than 450 litres when used for the transport of gases;

**Tank** (under ADR/RID/ADN): a shell, including its service and structural equipment. When used alone, the term tank means a tank-container, portable tank, tank-wagon, demountable tank

or fixed tank as defined in Chapter 1.2 of the ADR/RID/ADN, including tanks forming elements of battery-vehicles, battery-wagons or MEGCs;

**Tank-container** (under ADR/RID/ADN): 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, having a capacity of more than 0.45 m<sup>3</sup> (450 litres);

**Portable tank** means:

- (a) For the purposes of the transport of substances of Class 1 and Classes 3 to 9\*, a multimodal portable tank. It includes a shell fitted with service equipment and structural equipment necessary for the transport of dangerous substances;
- (b) For the purposes of transport of non-refrigerated, liquefied gases, a multimodal tank having a capacity of more than 450 litres. It includes a shell fitted with service equipment and structural equipment necessary for the transport of gases;
- (c) For the purposes of transport of refrigerated liquefied gases, a thermally insulated tank having a capacity of more than 450 litres fitted with service equipment and structural equipment necessary for the transport of refrigerated liquefied gases.

The portable tank shall be capable of being loaded and discharged without the need of removal of its structural equipment. It shall possess stabilizing members external to the shell, and shall be capable of being lifted when full. It shall be designed primarily to be loaded on to a transport vehicle or ship and is equipped with skids, mountings or accessories to facilitate mechanical handling. Road tank-vehicles, rail tank-wagons, non-metallic tanks, gas cylinders, large receptacles, and intermediate bulk containers (IBCs) are not considered to fall within this definition;

**Vehicle** (*UN Model Regulations*): a road vehicle (including an articulated vehicle, i.e. a tractor and semi-trailer combination), railroad car or railway wagon. Each trailer shall be considered as a separate vehicle;

**Vessel**: any seagoing vessel or inland waterway craft used for carrying cargo.

### 3. Action requested of the Sub-Committee

The Sub-Committee may wish to consider whether it would be useful to introduce such definitions in the GHS, as well as other definitions which may be found in other types of regulations, in order to clarify the respective meanings of such terms in different contexts.

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\* See Part 2 of the Model Regulations.

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