

Hazardous Materials Bulletin

MARKING REQUIREMENTS FOR NON-BULK PACKAGES

Revised December 2005

Non-bulk packages are those packages that have a capacity of less than 119 water gallons (See definitions, Section 171.8). The requirements for package markings are found in Subpart D of Part 172.

General

Except for limited quantities and ORM-D materials, all non-bulk packages must be marked with the **identification number** (including NA or UN) and the **proper shipping name**. **Technical names**, if required to appear on the shipping paper, must also appear on the package in relation to the proper shipping name. The **consignee's or the consignor's name and address** must also appear on the package, unless part of a large lot going to one location, or transported by highway and not transferred from one motor carrier to another (see §172.301(d)).

Requirements and Prohibitions

Markings for non-bulk packages must appear once on the package, must be durable, in English, and printed on the package or affixed with a tag or sign (§172.304). There is no size requirement, but it must be displayed on a contrasting background, be unobscured, and located away from other markings. Abbreviations must be authorized by the regulations (§172.308).

Packages may not be offered or transported with hazardous materials markings unless they actually contain that material or a residue of that material. This provision does not apply to packages that are not visible in transport and are unloaded by the shipper or consignee or to packages whose markings are securely covered in transportation (§172.303).

Additionally, Section 173.29(c) exempts empty non-bulk packages from shipping papers and placarding if it contains the residue of a Table 2 material, and is transported by a private or contract carrier for reconditioning, remanufacture, or reuse.

Hazardous Substances, Orientation Arrows and ORM-Ds

The letters "**RQ**" must be in association with the proper shipping name of a non-bulk package of a hazardous substance (hazardous substances are determined by the table in Appendix A of Section 172.101). In addition, the technical name must be included if the hazardous substance is not identified by the proper shipping name (§172.324).

Orientation arrows, such as the one shown above (the border is optional), must be included on any non-bulk package with a liquid in an inner package, such as four one-gallon plastic containers in a cardboard box. The arrows must be on **two opposing sides** (§172.312).

If a material has been reclassified as an **ORM-D** material, the only marking requirement is the proper shipping name and the **ORM-D** symbol ("ORM-D" in a black rectangular box). Affixing the marking is the responsibility of the offeror and serves as their certification that the package meets the requirements (§172.316).

Liquefied Petroleum Gases (LPG)

After September 30, 2006, no person may offer for transportation or transport a specification cylinder, except a Specification 2P or 2Q container or a Specification 39 cylinder, that contains an un-odorized Liquefied petroleum gas (LPG) unless it is legibly marked NON-ODORIZED or NOT ODORIZED in letters not less than 6.3 mm (0.25 inches) in height near the marked proper shipping name

Radioactive Materials

In addition to other marking requirements, packages of radioactive materials with a gross mass over 110 lbs. (50 kg.) must have the gross mass marked on the outside of the package. In addition, each radioactive material package must be marked "TYPE A" or "TYPE B", be marked "USA" if destined for export, and Type B packages must have the trefoil symbol as shown in Appendix B of Part 172 (§172.311). Additionally, effective 10/1/2004 additional markings may be required, including the words TYPE IP-1, TYPE IP-2, TYPE IP-3, as appropriate. Each package which conforms to an IP-1, IP-2, IP-3 or a Type A package design must be legibly and durably marked on the outside of the package with the international vehicle registration code of the country of origin of the design. Also each Type B(U) and Type B(M) or fissile material package designed for export must be marked "USA" in conjunction with the specification marking, or other package certificate identification. (See §173.471, §173.472, and §173.473 of this subchapter.)

Explosives

Most explosives are required to be marked with their assigned "EX" number. The U.S. Department of Transportation, Research and Special Projects Administration (USDOT/RSPA) assigns this number. There are some explosives that are excepted from this requirement (§172.320).

Poisons

Packages of materials that meet the definition of poison inhalation hazard (PIH) are required to be marked "**Inhalation Hazard**". The PIH label or placard suffices for this marking requirement. Non-bulk plastic packages for poison materials must be **permanently** marked with the word "POISON" (§172.313).

Marking of Large Quantities of Non-Bulk Packages

A transport vehicle must be marked with the identification number if:

- transporting 4,000 kg (8,820 lbs.) or more aggregate gross weight of non-bulk packages of a hazardous material with a single identification number and the same proper shipping name (Limited quantities and ORM-D materials excepted). This provision applies only if it was loaded at one facility and no other materials, hazardous or otherwise, are in the vehicle or container (§172.301(a)(3)).
- transporting more than 1,000 kg (2,205 lbs.) aggregate gross weight of a Poisonous Inhalation Hazard (PIH) material, Zone A or B, in nonbulk packages with a single identification number and the same proper shipping name, when loaded at one facility (§172.313(c)).

UN Specification Marking and Exemption Markings

The requirements for the UN Specification marking are found in §178.503. Unless excepted by the regulations, all hazardous materials must be transported in a UN or DOT specification package. This marking is applied by the package manufacturer once the package meets all the required tests.

It is the responsibility of the offeror to ensure that the package is authorized by the regulations for that hazardous material, and that the package is compatible with the hazardous material.

Exemption markings are required if USDOT/RSPA has issued an exemption from one or more of the package specifications. The outside of the package must be marked plainly and durably with "DOT-E", followed by the number assigned by RSPA (§172.301).

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