

Monsanto Container Q&As
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Why do Monsanto's 120-, 150- and 250-gallon Shuttle containers and 265-gallon CUBE containers comply with EPA's refillable container regulations even though they do not have the DOT/UN marking?

Short answer: Monsanto's 120-, 150- and 250-gallon Shuttle containers and 265-gallon CUBE containers can be used under EPA's refillable container regulations even though they do not have the DOT/UN marking because they are "non-DOT Specification portable tanks suitable for the transport of liquids." The U.S. Department of Transportation (DOT) regulations in 49 CFR 173.241(c), which are incorporated into EPA's refillable container regulations, authorize the use of non-DOT Specification portable tanks suitable for the transport of certain low-hazard liquids.

Details: For pesticides that are not DOT hazardous materials and are sold or distributed in refillable containers, EPA's regulations in 40 CFR 165.45(a)(1) require the pesticide to be packaged in a refillable container that, if portable, is designed, constructed, and marked to comply with certain requirements in DOT's regulations at a Packing Group III level. This section in EPA's regulations refers to and adopts a subset of DOT's Hazardous Materials Regulations (HMR), including 49 CFR 173.241(c), which states:

"DOT Specification 51, 56, 57 and 60 portable tanks; IMO type 1, 2 and 5, and IM 101 and IM 102 portable tanks; UN portable tanks; marine portable tanks conforming to 46 CFR part 64; and **non-DOT Specification portable tanks suitable for transport of liquids are authorized.** ..." (Emphasis added,)

The DOT regulations authorize the use of these types of containers, including non-DOT Specification portable tanks^{1 2} suitable for transport of liquids, for certain DOT hazardous materials that are low hazard liquid and solid materials. By citing 49 CFR 173.241(c) in the refillable pesticide container regulations, EPA is allowing non-DOT Specification portable tanks suitable for transport of liquids to be used to distribute or sell pesticides that are not DOT hazardous materials. (See the Table of Hazardous Materials and Special Provisions in 49 CFR 172.101 to determine the packaging that DOT authorizes for pesticides that are hazardous materials.)

¹ EPA believes that Monsanto's 120-, 150- and 250-gallon Shuttles and 265-gallon CUBEs are "non-DOT Specification portable tanks" based on DOT Interpretation 10-0186. This interpretation states "An IBC is defined by the HMR as a rigid or flexible portable packaging, other than a cylinder or specification portable tank, that is designed for mechanical handling (see § 171.8)." The DOT interpretation further states that "If the specification markings [on an IBC] are destroyed, removed, or covered, the packaging no longer meets the standards of a specification packaging in accordance with the HMR. Therefore the packaging is a non-specification bulk packaging and can be considered a non-specification portable tank." (Letter from T. Glenn Foster, U.S. DOT to Erin N. Jarman, URS Corporation)

² Section 173.241 of DOT's regulations require non-DOT Specification portable tanks suitable for transport of liquids to comply with the "general packaging" requirements in 49 CFR Part 173 for DOT hazardous materials, including §173.24 "General requirements for packagings and packages"; §173.24b "Additional general requirements for bulk packagings" and §173.32 "Requirements for the use of portable tanks." For pesticides that are not DOT hazardous materials, EPA's regulations refer to and adopt 49 CFR 173.24 and 173.24b, but not 49 CFR 173.32. Therefore, non-DOT Specification portable tanks suitable for transport of liquids that are used for pesticides that are not DOT hazardous materials must comply with 49 CFR 173.24 and 173.24b.

Please note that Monsanto has not received a specific exemption or waiver from EPA for its Shuttles and CUBEs, which are bulk packagings³. Instead, for refillable pesticide containers larger than 119 gallons, Monsanto is choosing to use containers that are authorized by 49 CFR 173.241(c) rather than by 49 CFR 173.241(d), which is also incorporated into EPA's regulations. Section 173.241(d) authorizes the use of intermediate bulk containers (IBCs) that comply with the DOT testing requirements for IBCs at the Packing Group III performance level.

The option for "non-DOT Specification portable tanks suitable for transport of liquids" is not valid for refillable containers that are 119 gallons or smaller (for liquid pesticides that are not DOT hazardous materials). These smaller containers are UN marked non-bulk packagings⁴. Section §165.45(a)(1) in EPA's regulations refers to and adopts 49 CFR 173.203, which lists the authorized non-bulk packagings for liquid hazardous materials in Packing Group III. All of the non-bulk containers identified in 49 CFR 173.203 must be designed, tested and marked to comply with DOT's requirements at the Packing Group III performance level. Therefore, all refillable pesticide containers that are 119 gallons or smaller must be designed, tested and marked to comply with DOT's requirements at the Packing Group III performance level.

Do Monsanto's 120-, 150- and 250-gallon Shuttle containers and 265-gallon CUBE containers (that do not have the DOT/UN marking) need to be leakproofness tested every 2.5 years? Do these Shuttle containers and CUBEs need to pass the DOT external inspection every 2.5 years or the DOT internal inspection every 5 years?

No, Monsanto's 120-, 150- and 250-gallon Shuttle containers do not need to be leakproofness tested or DOT inspected according to the requirements in 49 CFR 180.352 (which is referred to and adopted by EPA's refillable pesticide container regulations.) Monsanto's Shuttle containers and CUBE containers are "non DOT-Specification portable tanks" rather than IBCs and the "requirements for retest and inspection of IBCs" in 49 CFR 180.352 only apply to IBCs "constructed in accordance with a UN standard." Specifically, 49 CFR 180.352(a) states: "Each IBC constructed in accordance with a UN standard for which a test or inspection specified in paragraphs (b)(1), (b)(2) and (b)(3) of this section is required may not be filled and offered for transportation or transported until the test or inspection has been successfully completed." Section 180.352(b) establishes test and inspection requirements for metal, rigid plastic and composite IBCs. Monsanto's 120-, 150- and 250-gallon Shuttle containers and 265-gallon CUBE containers are not IBCs so the retest and inspection requirements in 49 CFR 180.352 do not apply to them.

Refillable pesticide containers need to be leakproofness tested if the DOT regulations that are referred to and adopted into the pesticide container regulations require the testing. There are no EPA-specific requirements in the pesticide container regulations that require pesticide containers to be leakproofness tested. However, EPA's repackaging regulations do require a refiller to inspect a container each time before it is refilled. (40 CFR 165.65(e) and 165.70(f))
Currently, Monsanto is considering a revision to their repackaging contracts to require refillers to conduct a periodic performance test of some type on Monsanto 120-, 150- and 250-gallon Shuttles and 265-gallon CUBEs to address the continued qualification of these containers.

³ DOT defines "bulk packaging" as "a packaging, other than a vessel or a barge, including a transport vehicle or freight container, in which hazardous materials are loaded with no intermediate form of containment. ... Additionally, a bulk packaging has: (1) A maximum capacity greater than 450 L (119 gallons) as a receptacle for a liquid; ..." (49 CFR 171.8)

⁴ "Non-bulk packaging means a packaging which has: (1) A maximum capacity of 450 L (119 gallons) or less as a receptacle for a liquid; ..." (49 CFR 171.8)