



U.S. Department  
of Transportation

**Pipeline and Hazardous  
Materials Safety  
Administration**

1200 New Jersey Avenue, SE  
Washington, D.C. 20590

DEC 13 2012

Mr. Norm Stollberg  
WR Grace  
7500 Grace Drive  
Columbia, MD 21044

Ref. No. 12-0168

Dear Mr. Stollberg:

This responds to your letter requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to the use of portable tanks. You ask whether a substance, under the description "UN3396, Organometallic substance, solid, water-reactive, flammable, 4.3, I" may be offered for transportation and transported in a Department of Transportation (DOT) Specification 51 portable tank without having to apply for a special permit.

The answer is yes. As prescribed in § 173.242(c), a DOT Specification 51 portable tank is authorized for the solid substance you intend to package. Additionally, § 173.32(c)(2) authorizes the continued use of a DOT Specification 51 portable tank provided it is maintained and requalified in accordance with the inspection and tests prescribed in Subpart G of Part 180 of the HMR. Further, it is the portable tank owner's responsibility to ensure that compliance, maintenance, and requalification of the portable tank is in accordance with the HMR prior to offering it for transportation in commerce.

I trust this satisfies your inquiry. Please contact us if we can be of further assistance.

Sincerely,

T. Glenn Foster  
Chief, Regulatory Review and Reinvention Branch  
Standards and Rulemaking Division

Norm Stollberg  
WR Grace  
7500 Grace Drive  
Columbia, MD 21044

Mr. Charles E. Betts  
Director, Standards and Rulemaking Division  
U.S. DOT/PHMSA (PHH-10)  
1200 New Jersey Avenue, SE East Building, 2nd Floor  
Washington, DC 20590

July 31, 2011

Dear Mr. Bettis,

My company has a fleet of DOT 51 / IMO Type I Portable Tanks. We are trying to ship UN3396, Organometallic substance, solid, water-reactive, n.o.s., PG I in these containers.

When you look at the Hazardous Materials List (HML) in 172.101 under the Proper Shipping Name and UN Number UN3396, PG I: Organometallic substance, solid, water-reactive, n.o.s. and refer to Column 7 (Special Provisions) for tanks T9 is given.

When I looked in 172.101 (Special Provisions)(7)T Codes there are 2 T codes for T9. One states for bottom outlets Prohibited) the other T9 Code for bottom outlets states (Prohibited for liquids, See 178.275 (d) (2).

When you look in the HMR under 178.275 (d,) (2), it states: Bottom openings. Bottom discharge outlets for portable tanks carrying certain solid, crystallizable or highly viscous hazardous materials must be equipped with at least two serially fitted and mutually independent shut-off devices. Use of only two shut-off devices is only authorized when this paragraph is referenced in the applicable T Code indicated for each hazardous material in the 172.101 Table of this subchapter.

The design of the equipment must be to the satisfaction of the approval agency and must include:

- (i) An external stop-valve fitted as close to the shell as reasonably practicable; and
  - (ii) A liquid tight closure at the end of the discharge pipe, which may be a bolted blank flange or a screw cap.
- (3) Except as provided in paragraph (d)(2) of this section, every bottom discharge outlet must be equipped with three serially fitted and mutually independent shut-off devices. The design of the equipment must include:
- (i) A self-closing internal stop-valve, which is a stop-valve within the shell or within a welded flange or its companion flange, such that:
    - (A) The control devices for the operation of the valve are designed to prevent any unintended opening through impact or other inadvertent act;
    - (B) The valve is operable from above or below;
    - (C) If possible, the setting of the valve (open or closed) must be capable of being verified from the ground;

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§172.101  
§178.275(d)(2)  
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(D) Except for portable tanks having a capacity less than 1,000 liters (264.2 gallons), it must be possible to close the valve from an accessible position on the portable tank that is remote from the valve itself within 30 seconds of actuation; and

(E) The valve must continue to be effective in the event of damage to the external device for controlling the operation of the valve;

(ii) An external stop-valve fitted as close to the shell as reasonably practicable;

(iii) A liquid tight closure at the end of the discharge pipe, which may be a bolted blank flange or a screw cap; and

(iv) For UN portable tanks, with bottom outlets, used for the transportation of liquid hazardous materials that are Class 3, PG I or II, or PG III with a flash point of less than 100 °F (38 °C); Division 5.1, PG I or II; or Division 6.1, PG I or II, the remote means of closure must be capable of thermal activation. The thermal means of activation must activate at a temperature of not more than 250 °F (121 °C).

My questions are:

1. Who approves the design? PHMSA
2. Can the material be shipped in DOT 51 / IMO Type I Tanks without a special permit if it meets the requirements of 178.275 (d), (2)?

Note: I have found a similar type of material that is a solid PG I (Special Permit Number SP14751 with an issue date of 1 July 2011).

Best Regards,

  
Norm Stollberg  
WR Grace

Senior Global Dangerous Goods Transportation Specialist / CHMM / DGSA