



U.S. Department
of Transportation

**Research and
Special Programs
Administration**

400 Seventh Street, S.W.
Washington, D.C. 20590

JUN - 4 1998

Mr. Joseph Grebe
Manager, Testing and Technical Service
Greif Bros. Corporation
1201-A South Houk Road
Delaware, Ohio 43015

Dear Mr. Grebe:

This is in response to your letter dated March 20, 1998, regarding the package marking requirements in 49 CFR 178.503(a)(4)(ii) under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). Specifically, you ask us to define the terms "net mass" and "gross mass."

The term gross mass is defined in § 171.8 as "the weight of a packaging plus the weight of its contents." The term "net mass" means the weight of the contents in a packaging. The difference between the two terms is the fact that you include the weight of the packaging in determining its gross mass but you do not include the weight of the packaging when determining its net mass. Therefore, a steel open head drum that weighs 35 kilograms and has a maximum net mass of 400 kilograms would be correctly marked as "1A2/X435/S..." in accordance with § 178.503(a)(4)(ii).

I hope this satisfies your request.

Sincerely,

Delmer F. Billings
Chief, Standards Development
Office of Hazardous Materials Standards

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March 20, 1998

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Mr. Edward Mazzullo
Director
Office of Hazardous Materials Standards (DHM-10)
United States Department of Transportation
400 7th St., S.W.
Washington, DC 20590-0001

Re: Emergency Interpretation of Packaging Marking Requirements

We have discovered a serious difference of interpretation with regard to maximum markings for containers certified for solid hazardous materials.

This difference was brought to our attention during a DOT enforcement inspection at our Sparrows Point Maryland facility. We manufacture steel salvage drums with a certification of 1A2/X435/S. These drums have a tare weight of approximately 35 kilograms and are intended to be filled with up to 400 kilograms of net contents.

We have been told by the inspector, that the maximum marking that can appear on our packaging is 1A2/X400/S.

We believe that this is an incorrect interpretation of the regulatory citations in 49CFR.

Specifically, 178.504 "Standards for steel drums" (b)(9), and all other container standards reference net mass. The definition of net mass is "the weight of the contents only".

Paragraph 178.503(a)(4)(ii) specifically requires that drums be marked with "...the maximum gross mass in kilograms;". The definition of gross mass is the package plus its contents.

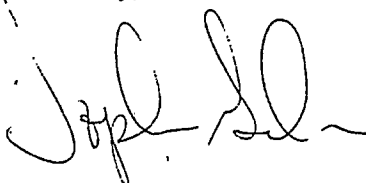
Therefore in our situation, a salvage drum weighing 35 kilograms used to package the maximum net mass allowed in a steel drum [178.504(b)(9)](400kg) would be correctly marked as 1A2/X435/S

An extreme example of this problem in the enforcement branch's interpretation would be if I as a manufacturer designed a 119 gallon drum made from lead sheet of very heavy gage. The drum would most definitely weigh in excess of 400 kilograms. This drum would not be able to be used to ship any product and in fact would be in violation of the regulations even when empty.

I believe that this is the reason why the UN recommendations as well as 49CFR make the specific distinction between net weights and gross weights.

We desperately need your assistance in correcting this error by issuing a letter of interpretation, which clearly defines the difference between net and gross mass.

Sincerely,



Joseph Grebe
Manager, Testing and Technical Service