



U.S. Department
of Transportation
**Research and
Special Programs
Administration**

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

JUL 31 2003

Mr. Clark B. Huggins
P.O. Box 57
Bear River City, UT 84301

Ref. No: 03-0157

Dear Mr. Huggins:

This is in response to your June 24, 2003 letter requesting clarification of the requirements in the Hazardous Materials Regulations (HMR; 49 CFR Parts 172-180) regarding the general packaging requirements for explosives. Your questions are paraphrased and answered below.

Q1. Can wetted explosives be shipped during warm weather without the use of anti-freeze?

A1. Section 173.60(b)(4) specifically states "[when] the packaging includes water that could freeze during transportation, a sufficient amount of anti-freeze, such as denatured ethyl alcohol, must be added to the water to prevent freezing." [Emphasis added] It is not possible for this Office to determine that in every situation where wetted explosives are shipped during warm weather, the wetted explosive would not encounter, during its transportation, freezing temperatures. Therefore, it is the shipper's responsibility based on the mode of transportation, as well as other transportation factors, whether their wetted explosives are liable to encounter conditions that could cause freezing to occur.

Q2. When required, is only the amount of anti-freeze necessary to prevent freezing at the anticipated temperatures required?

A2. Section 173.60(b)(4) states in part . . . "a sufficient amount of anti-freeze must be added to the water to prevent freezing. . . . When a percentage of water in the substance is specified, the combined weight of water and anti-freeze may be substituted." Therefore, the answer is yes.

Q3. Can the use of anti-freeze be excluded, if some acceptable means of temperature control is provided in the cargo space?

A3. The answer is no, the regulations specifically require that anti-freeze be used. Other alternate controls may be authorized only under the terms of a DOT exemption (see § 107.105).

I hope this satisfies your request.

Sincerely,

Hattie L. Mitchell, Chief
Regulatory Review and Reinvention
Office of Hazardous Materials Standards



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Betts
\$173.60
Packaging of
Explosives
03-0157

Clark B. Huggins
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June 24, 2003

Mr. Edward T. Mazzullo
Office of Hazardous Materials Standards DM-10
U.S. Department of Transportation
Research and Special Projects Administration
400 7th Street SW
Washington, D.C. 20590

Dear Mr. Mazzullo,

I am writing for assistance with interpretation and clarification of 49 CFR 172.60(b)(4). This subparagraph reads "When the packaging includes water which could freeze during transportation, a sufficient amount of anti-freeze, such as denatured ethyl alcohol, must be added to the water to prevent freezing....".

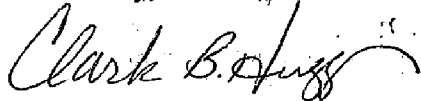
Does this mean that wetted explosives shipped during warm weather need not have antifreeze added? *No*

Does this mean that only the amount of antifreeze necessary to prevent freezing at the anticipated temperatures is required? *Yes*

If some acceptable means of temperature control is provided to the cargo space, can the use of antifreeze be excluded? *only under 40 exemption*

Any assistance in clarifying this matter would be greatly appreciated.

Sincerely,



Clark B. Huggins