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

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

APR 22 1999

Mr. C. Vleugels
VanHool N.V.
Bernard Van Hoolstraat 58
B-2500 Lier Koningshooikt
Belgium

Ref. No. 99-0062

Dear Mr. Vleugels:

This is in response to your letter dated February 3, 1999, requesting clarification on the transportation of "Sodium Sulfide, hydrated with not less than 30% water, 8, UN 1849, II" under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). Specifically, you ask whether the provisions in §§ 173.32c (g)(2) and 173.32c (j) concerning bottom outlets and filling density apply to a solid material.

The bottom outlets and filling density provisions apply to liquid and flowable solid hazardous materials, not to solid or non-flowable solid hazardous materials. The provisions of § 173.32c (j) were developed to cover liquid and flowable solid hazardous materials transported in IM portable tank packagings. This provision was intended to minimize the risk of accidents resulting from slosh and the shift of the center of gravity.

This has been further clarified under Docket HM-215C, "Harmonization with the United Nations Recommendations, International Maritime Dangerous Goods Code, and International Civil Aviation Organization's Technical Instructions; Final Rule (64 FR 10742) published March 5, 1999. Under Docket HM-215C, § 173.32c (j) has been revised for consistency with the UN Recommendations. The provision excluding non-flowable solids is broadened to include viscous liquids with a low flow rate. In § 173.32c paragraph (j) is revised to read "except for a non-flowable solid or a liquid with a viscosity of 2,680 centistokes (millimeters squared per second) or greater at 20 degrees C, an IM portable tank or compartment thereof having a volume greater than 7,500 L (1,980 gallons) may not be loaded to a filling density of more than 20% and less than 80% by volume. If a portable tank is divided by partitions or surge plates into compartments of not more than 7,500 L capacity, this filling restriction does not apply."

I hope this answers your inquiry.

Sincerely,

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

990062

173.32(c)(5)(2)

VANHOOL

Bus and trailer manufacturers

Boothe
§173.32c(g)(2)
99-0062

Department: SB IV
Extension: 3411
Contact: C. Vleugels
Our reference: ET/CV/ds - 99/074

US Department of Transportation
Office of Hazardous Materials Standards
400 Seventh Street, S.W.
WASHINGTON D.C. 20590
USA

Lier, 02.03.1999

Use of IM-portable tanks for solids

Dear Sirs

We have a particular question concerning the interpretation of the rules for the transport of Sodium Sulfide, hydrated UN 1849. with not less than 30% water. Class 8 Sp. T8 → 173.240

Rules :

According to § 172.101 Column 8C	:	packaging § 173.240 → low hazard **solid** material.
According to § 172.101 Column 7	:	special provision T8 → bottom outlets according to § 173.32 c (g) (2). This means 3 serially mounted closures below **liquid** level. → 173.32c (g)(2)
According to § 173.32 c (j)	:	min filling density of 80%.

Question :
Do we have to fulfil the provisions concerning the outlets and filling density for a **solid** material ?

Awaiting your reply, we remain,

with kind regards

C. VLEUGELS

ir. E. TAEYMANS
Technical Manager

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