



U.S. Department  
of Transportation

**Research and  
Special Programs  
Administration**

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

SEP - 4 1998

Mr. Mark Hughes  
Polar Service Centers  
120 Cedar Spring Road  
Spartanburg, SC 29302

Reference No. 98-0217

Dear Mr. Hughes:

This is in response to your letter of July 30, 1998, regarding a suitable corrosion allowance for sulfuric acid in MC 307 cargo tanks under the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180). Specifically, you ask whether an MC 307 cargo tank, with a minimum shell thickness of .172 inches and a shell diameter of 50 inches, has a suitable corrosion allowance for sulfuric acid in concentrations up to 65.25 percent.

The answer is yes. An MC 307 cargo tank having a minimum shell thickness of .172 inches and a shell diameter of 50 inches has a suitable corrosion allowance for sulfuric acid or spent sulfuric acid in concentrations up to 65.25 percent as specified in Special Provision B84 (§ 172.102).

I hope this answers your inquiry. If we can be of further assistance, please contact us.

Sincerely,

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

**POLAR**  
SERVICE CENTERS

98-0217

120 CEDAR SPRING ROAD  
SPARTANBURG, SC 29302  
TELEPHONE: 864-573-8313  
TOLL-FREE: 1-800-855-8558  
TELEFAX: 864-583-4385

George  
§ 173.101 (S)  
Sulfuric Acid

Date July 30, 1998

Director Office Hazardous Materials Standards  
US DOT/RSPA DHM-10  
4007th Street, SW.  
Washington DC. 20590-0001

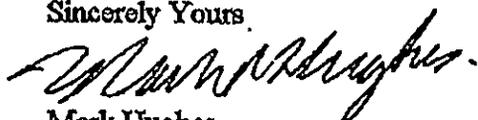
Subject - MC 307 for Sulfuric Acid service

Dear Mr Edd Mazzullo

After reviewing the above subject with one of your DOT specialist over the phone . I was told I could request a written statement from your office regarding the subject. The specifications are as follows , MC 307 - 4700Gal trailer that has passed all inspections per section 180.407, with a min. shell and head thickness of .172 inches , shell dia. is 50", ring spacing is 39", shell material is 316 SS. Trailer is to be used in sulfuric acid service of more than 51 percent acid. After reviewing Hazardous Materials table, Special Provisions and Packaging Authorizations it states that a MC 307 with suitable corrosion allowance is approved for this service. I referred to the material thickness charts for MC 312 to verify suitable corrosion allowance due to the fact that the industry has always used MC 312 trailers to transport sulfuric acid and MC 307 does not show sufficient thickness. The volume capacity in gallons per inch is in the less than 10 range and the product weight in pounds per gallon is in the 13 to 16 range therefore the minimum shell thickness stated in the table is 8 GA or decimal equivalent of .164 inches and a minimum in service thickness of .148 inches. Please advise if the above subject unit is approved for sulfuric acid of more than 51%.

If you require any further information please call me at 1-800-955-8558 ext 4 . Needing a response as quickly as possible thank you for your time.

Sincerely Yours,

  
Mark Hughes