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

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

FEB 27 2003

DOT-E 6443
(EIGHTH REVISION)

EXPIRATION DATE: January 31, 2005

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Montana Sulphur and Chemical Company
Billings, Montana

2. PURPOSE AND LIMITATION:

a. This exemption authorizes the transportation in commerce of certain MC 331 cargo tanks containing liquefied hydrogen sulfide, classed as Division 2.3 material. This exemption provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein.

b. The safety analyses performed in development of this exemption only considered the hazards and risks associated with transportation in commerce.

3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.

4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR §§ 172.101 Table Column 7 Special Provision B9, 173.24b(a), 173.315, and 178.337-8.

5. BASIS: This exemption is based on the application of Montana Sulfur & Chemical Company dated February 2, 2003 submitted in accordance with § 107.109.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Proper Shipping Name/ Hazardous Materials Description	Hazard Class/ Division	Identi- fication Number	Packing Group
Hydrogen sulfide	2.3	UN1053	N/A

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Packagings prescribed are DOT Specification MC-331 insulated cargo tanks having a design pressure of 500 psig specifically described as follows:

i. Cargo tanks bearing Trinity Industries serial number 373919 having a nominal water capacity of 5100 gallons and built in compliance with Trinity Industries, Inc., Transport Specification Number A-2111 and drawings D-4041, Rev. 0; D-4042, Rev. 0; C-4067, Rev. 0; C-4068, Rev. 0; 105662-4, Rev. 0; D-4038, Rev. 0; C-4039, Rev. 0; and D-4040, Rev. 0. Pads must be installed under the hydrogen probe gauge guard and all of the places where the piping guard attaches to the tank shell. Flange for the relief valve opening should be counterbored for the flexitalic gasket unless the gasket is of such nature that its location is fixed by the bolts. The cargo tank is mounted on trailer with serial number 71051-F, Gorbett Brothers. The cargo tank may be further modified in accordance with drawings specifications submitted with letters dated August 10, 1978 and January 22, 1979 on file with the Office of Hazardous Materials Exemptions and Approval(OHMEA).

ii. Cargo tank bearing Trinity Serial Number 367396 having a nominal water capacity of 5100 gallons built in compliance with Trinity Industries, Inc. drawings 102332-1, Rev. 2; 102332-2, Rev. 0; 102332-3, Rev. 1; 102332-4, Rev. 0; 102332-5, Rev. 0; 102332-6, Rev. 0; 102332-7, Rev. 0; 102332-8, Rev. 2; 102332-9, Rev. 1; and 102332-11, Rev. 2. The cargo tank may be further modified in accordance with specifications submitted with letters dated August 10, 1978 and January 22, 1979 on file with the OHMEA.

iii. Cargo tanks bearing Lubbock Manufacturing Company Serial Numbers 57888, 57889, 57890, 58483, 58775, 57976 and 57974 having a nominal water capacity of 5,000 gallons, built in compliance with Lubbock Manufacturing Company's

drawings STR-788-A through - A6, dated October or November 1971, or revised as of March 7, 1972 and related vehicle drawings on file with the OHMEA; STR-968A, -A1, -A2, -A3, -A4, -A5 and -A6, dated April 25, 1973; or STR 818A-Rev. B, -A1-Rev. C, -A2-Rev. C, -A3-Rev. D, -A4-Rev. O, -A5-Rev. O, -A6-Rev. B, -A7-Rev. B, -A8-Rev. A. The tanks are insulated with 4 inch thick polyurethane foam. The requirements pertaining to pads and flange for relief valve opening for cargo tank Trinity 373919, apply equally to these tanks. Cargo tanks may be modified in accordance with specifications submitted with letters dated August 10, 1978 and January 22, 1979 on file with the OHMEA.

iv. Cargo tanks bearing Trinity serial numbers 360436 and 361456 having a nominal water capacity of 5100 gallons built in compliance with Trinity drawings 73002-1 Rev.1; -2 Rev 3; -3 Rev 1; -4 Rev 0; - 5 Rev. O; -6 Rev 0; -7 Rev 0; -8 Rev 0; -9 Rev 2, -10 Rev 0 and insulated in accordance with drawing H-101-R-1 Rev 1. The cargo tanks may be further modified in accordance with specifications submitted with letters dated August 10, 1978 and January 22, 1979 on file with OHMEA.

v. Each cargo tank must be insulated with a 4" thick, (3/4 pound per cubic foot density) glass wool blanket or a noncombustible material having equivalent or less thermal conductance. Insulation must be covered with either a steel shell of not less than 3/32 inch nominal thickness or an aluminum shell of not less than 1/8 inch nominal thickness so constructed and sealed that moisture cannot come in contact with the insulation.

b. TESTING - Each cargo tank must be reinspected and retested once every 2 years in accordance with § 180.407 as prescribed for DOT Specification MC-331 cargo tanks at one and one-half times the design pressure.

c. MARKING - Cargo tanks must be placarded "POISON GAS" and "FLAMMABLE GAS" and marked in letters two inches high "INHALATION HAZARD," in association with required placards, as required in §§ 172.313 and 172.540.

8. SPECIAL PROVISIONS:

a. A person who is not a holder of this exemption who receives a package covered by this exemption may reoffer it for transportation provided no modifications or changes are made to the package and it is reoffered for transportation in conformance with this exemption and the HMR.

b. A current copy of this exemption must be maintained at each facility where the package is offered or reoffered for transportation.

c. Cargo tanks must be loaded by weight in accordance with § 173.315(c) and must be equipped with safety relief valves in compliance with § 173.315(i). The required relieving capacity of safety relief valves must be based on the heat input to a bare tank. The filling density shall not exceed 72% at 105°F.

d. Two drivers must be assigned to each motor vehicle on each trip. They must be instructed as to safeguards and proper procedures to be followed in the event of fire, accident or unusual delay. Each vehicle must be equipped with at least two self contained breathing apparatus that will provide a combined total of no less than 90 minutes self contained breathing supply. The apparatus must be suitable for use in a hydrogen sulfide environment.

e. Tank motor vehicle may be equipped with a road safety kit containing flaring devices used to ignite the gas in the event of serious leakage. In this connection, the restrictions of § 393.95 are waived.

f. The carrier must comply with requirements of 49 CFR Part 397 as it applies to vehicles transporting Class 1.1 and 1.2 explosives.

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle.

10. MODAL REQUIREMENTS: A current copy of this exemption must be carried aboard each motor vehicle used to transport packages covered by this exemption.

11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this exemption and penalties prescribed by the Federal hazardous materials transportation law, 49 U.S.C. 5101 et seq:

- All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, 49 CFR Parts 171-180.

- Registration required by § 107.601 et seq., when applicable.

Each "Hazmat employee", as defined in § 171.8, who performs a function subject to this exemption must receive training on the requirements and conditions of this exemption in addition to the training required by §§ 172.700 through 172.704.

No person may use or apply this exemption, including display of its number, when the exemption has expired or is otherwise no longer in effect.

12. REPORTING REQUIREMENTS: The carrier is required to report any incident involving loss of packaging contents or packaging failure to the Associate Administrator for Hazardous Materials Safety (AAHMS) as soon as practicable. (Sections 171.15 and 171.16 apply to any activity undertaken under the authority of this exemption.) In addition, the holder(s) of this exemption must inform the AAHMS, in writing, of any incident involving the package and shipments made under the terms of this exemption.

Issued in Washington, D.C.:

Con Mazzullo

for Robert A. McGuire
Associate Administrator for
Hazardous Materials Safety

FEB 27 2003
(DATE)

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration, Department of Transportation, Washington, D.C. 20590. Attention: DHM-31.

Copies of this exemption may be obtained by accessing the Hazardous Materials Safety Homepage at http://hazmat.dot.gov/exemptions Photo reproductions and legible reductions of this exemption are permitted. Any alteration of this exemption is prohibited.

PO: KFW/AM