JUN 29 1993

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

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

DOT-E 10455
(SECOND REVISION)

1. Shell Chemical Company, Houston, Texas, is hereby granted an exemption from certain provisions of this Department's Hazardous Materials Regulations to offer or transport packages prescribed herein of a corrosive liquid, flammable, for transportation in commerce subject to the limitations and special requirements specified herein. This exemption authorizes the shipment of a slurry of mineral oil/catalyst, classed as a corrosive liquid, in a composite packaging consisting of a DOT Specification 5B steel drum with a ball valve and pressure gauge attached to the 3/4-inch opening, foamed in place in an 85-gallon, non-DOT specification steel removable head drum, and provides no relief from any regulation other than as specifically stated.

2. BASIS. This exemption is based on Shell Chemical Company's application dated March 8, 1993 submitted in accordance with 49 CFR 107.105 and letter dated September 4, 1992.

3. HAZARDOUS MATERIALS (Descriptor and class). A mineral oil/catalyst slurry, classed as Class 8 (corrosive material), UN 2920. **NOTE:** Effective October 1, 1993, the appropriate numeric hazard class or division descriptions must be used in place of the written hazard class descriptions.

4. PROPER SHIPPING NAME (49 CFR 172.101). Corrosive liquid, flammable, n.o.s.

5. REGULATION AFFECTED. 49 CFR 173.202.

6. MODES OF TRANSPORTATION AUTHORIZED. Motor vehicle and cargo vessel.

7. SAFETY CONTROL MEASURES.

a. Packaging prescribed is a composite packaging consisting of a DOT Specification 5B steel drum foamed in place in a non-DOT specification 85 gallon steel drum, as shown in Grief Brothers drawing number PB-255, and other drawings submitted with the application. Each DOT Specification 5B steel drum must:

i. Have a nominal water capacity of 43 gallons;

ii. Have a non-removable head;

iii. Be constructed of 16 gauge (0.0533 inch minimum) body and heads; and

iv. Be overpacked in an 85 gallon non-DOT specification steel drum constructed of all 16 gauge steel (0.0533 inch minimum). The inside drum must be isolated from the secondary overpack by a non-reactive high density polyurethane foam. There must be a minimum of two inches of polyurethane foam cushioning material around the body of the inner drum and at least three inches on the bottom, between the inner and outer drums.

b. A manifold incorporating 3/4-inch pipe fittings attached to a 3/4-inch ball valve and pressure gauge may be placed in the 3/4-inch opening of the DOT Specification 5B steel drum. The manifold must be stabilized to prevent flexing of the drum head by an application of high density polyurethane foam between the manifold and the drum head.

c. The completed container, filled and closed as for shipment, must be capable of withstanding the following tests without leakage of the filling substance from the inner drum or damage to the outer drum likely to affect safety during transportation:

i. Drop test. The packaging must be dropped from a height of 1.8 meters (5.94 feet) onto a rigid, non-resilient, flat and horizontal surface, so as to strike the target diagonally on the top chime.

ii. Stacking test. The packaging must be subjected to a force applied to the top surface of the packaging equivalent to the total weight of identical packages which might be stacked on it during transport. The minimum height of the stack including the test packaging must be 3 meters (9.84 feet).

d. A 5 psig nitrogen pad may be applied inside the inner drum after filling.

8. SPECIAL PROVISIONS.

a. Persons who receive the packages covered by this exemption may reoffer them for transportation provided no modifications or changes are made to the packages, all terms of this exemption are complied with and a current copy of this exemption is maintained at each facility from which such reoffering occurs.

b. A copy of this exemption must be carried aboard each motor vehicle and cargo vessel used to transport packages covered by this exemption.

c. Drivers must have been instructed as to necessary safeguards and proper procedure in the event of unusual delay, fire, or accident.

d. The outside of each package must be plainly and durably marked "DOT-E 10455."

e. This exemption also constitutes the approval of the competent authority of the United States for the packaging, as prescribed in paragraph 7 above, of corrosive liquid, flammable, n.o.s. on cargo vessel pursuant to Section 10.3 of the International Maritime Dangerous Goods Code.

9. 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. (49 CFR 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 also inform the AAHMS, in writing, as soon as practicable of any incidents involving the package and shipments made under this exemption.

10. EXPIRATION DATE. September 30, 1994.

Issued at Washington, D.C.:

JUN 29 1993

Alan I. Roberts
Associate Administrator
for Hazardous Materials Safety

(DATE)

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Research and Special Programs Administration, U.S. Department of Transportation, Washington, D.C. 20590. Attention: Exemptions Program.

Dist: FHWA, USCG.