MAY 21 1993

U.S. Department of Transportation

Research and Special Programs Administration

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

DOT-E 10799

1. ESM II Incorporated, Niagra Falls, New York, is hereby granted an exemption from certain provisions of this Department's Hazardous Materials Regulations specified in paragraph 5 below to offer packages perscribed herein of hazardous materials described in paragraph 3 below for transportation in commerce subject to the limitations and special requirements specified herein. This exemption authorizes the use of large, collapsible polypropylene-lined woven polypropylene bulk bags with top lifting straps having a capacity of 2200 pounds each, and top and bottom outlets, for shipment of certain hazardous materials listed in paragraph 3. below, and provides no relief from any regulation other than as specifically stated. **Note:** Reference to 49 CFR sections in this exemption are to regulations in effect on September 30, 1991.

2. BASIS. This exemption is based on the ESM II Inc. application dated May 27, 1992, submitted in accordance with 49 CFR 107.103 and the public proceeding thereon.

3. HAZARDOUS MATERIALS (Descriptor and class). Those materials classed as Oxidizers, Corrosive materials, Poison B and Flammable solids listed in Appendix A of this exemption and other Oxidizers, Corrosive solids, Poison B solids and Flammable solids which are compatible with polyethylene and are specifically identified to and acknowledged in writing by the Office of Hazardous Materials Exemptions and Approvals (OHMEA) prior to first shipment. For shipments by vessel, hazardous materials that are authorized by Appendix 2 to Section 26 of the General Introduction to the International Maritime Dangerous Goods (IMDG) Code to be transported in flexible intermediate bulk containers (FIBCs) may be transported in the bulk bags under this exemption. Such materials, which are part of an import or export shipment may also be transported in bulk bags under this exemption by motor vehicle and rail freight, provided a portion of the shipment is by vessel. **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). The specific chemical name or generic commodity description, as appropriate.

5. REGULATION AFFECTED. 49 CFR 172.331; 173.366; Part 173 Subparts E and F.

Expired - Not Active

6. MODES OF TRANSPORTATION AUTHORIZED. Motor vehicle, rail freight, and cargo vessel. Shipments by vessel must be made in conformance with Section 26 of the General Introduction to the IMDG Code.

7. SAFETY CONTROL MEASURES. Packaging prescribed is a non-DOT specification collapsible flexible, non-reusable intermediate bulk bag container. The bag is fabricated of woven polypropylene, incorporating lifting straps of woven polyester webbing, with an interior coating of polypropylene film, and has discharge and/or inlet openings, and a capacity of not over 2200 pounds. Actual test results for one bag of each design type must be on file with the Office of Hazardous Materials Exemptions and Approvals (OHMEA); Each bag, prepared as for shipment, must be capable of satisfactorily withstanding one of the following series of design type tests:

a. Free-fall drop tests (three from a height of four feet); Jerk test; Topple test; Topple and Drag test; Righting test, Abrasion test; as described in "Procedures for Performance Testing of Flexible Intermediate Bulk Containers," Packaging Institute, U.S.A., procedure T-4102-85, dated February, 1985; or;

b. Top lift test; Tear test; Stacking test; Drop test; Topple test; and Righting test; all at the packing group II performance level as described in Chapter 16 of the United Nations "Recommendations on the Transport of Dangerous Goods Seventh Revised Edition". If the UN series of tests is used to qualify a bag's design type, then the tested bag and each bag produced under this exemption must also be capable of passing the vibration standard described in Section 178.608 as found in 49 CFR dated October 31, 1992.

8. SPECIAL PROVISIONS.

a. Persons who receive 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. Shipment by highway must be in closed vehicles or freight containers, in full truckloads only, except that bags containing ammonium nitrate fertilizer may be transported on flatbed trailers provided the bags are restricted from movement and completely covered by waterproof tarpaulins.

c. Shipment by rail must be in DF box cars except that COFC or TOFC service is authorized in accordance with 49 CFR 174.61.

d. For transportation by cargo vessel, the following additional special provisions apply:

i. Bulk bags must be enclosed in a secondary containment system in accordance with Appendix A of this exemption. "Secondary containment system" means a closed or open freight container or transport vehicle.

ii. Materials in Classes 4.2 (Flammable solids) (Dangerous when wet) and 5.1 (Oxidizers) that are permitted by the IMDG Code to be transported without secondary protection may be carried as break-bulk cargo, provided -

(1) The hold or compartment is dry and thoroughly cleaned of all residue to previous cargo, and all loose debris and dunnage are removed.

(2) The hatches are inspected for watertightness before loading.

(3) The hold is free of sharp projections that could tear or puncture the bags.

(4) After the bags are unloaded, the hold or compartment is inspected for spillage and any residue removed.

iii. When any Class 5.1 materials (Oxidizer) that is carried as break-bulk cargo is loaded or unloaded -

(1) Firehoses must be laid out in the loading or unloading area and must be operable at all times.

(2) Smoking, carrying matches or lighting devices, or performing hot work is prohibited in the loading or unloading area; and the area must be posted with appropriate warning signs.

iv. The provisions of 49 CFR 176.410(d), except subparagraphs (d)(1) and (d)(2), do not apply to shipment of ammonium nitrate fertilizer (UN 2067) by vessel under this exemption.

e. Each bag must be permanently and durably marked in accordance with the requirements of Section 172.331 in letters at least two inches high on a contrasting background. In addition, for shipments by vessel, the marking requirements of subsection 26.1.5 of the General Introduction to the IMDG Code are required. The use of labels, tags or signs for marking purposes is prohibited.

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

g. Shippers using the packaging covered by this exemption must comply with 49 CFR Part 172; all provisions of this exemption, and all other applicable requirements contained in 49 CFR Parts 100-180.

9. REPORTING REQUIREMENTS: Any incident involving loss of packaging contents or packaging failure must be reported 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. March 31, 1995.

Issued at Washington, D.C.

MAY 21 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.

Dist: FHWA, FRA, USCG.

MAY 21 1993

APPENDIX A

Hazardous Material	UN Number	FOR Shipment By Cargo Vessel Secondary Containment (Freight Container or Transport Vehicle)
Aluminum bromide, anhydrous	UN 1725	open or closed
Aluminum nitrate	UN 1438	not required
Ammonium hydrogen fluoride, solid	UN 1727	open or closed
Ammonium nitrate	UN 1942	not required
Ammonium nitrate-carbonate mixture	UN 2068	not required
Ammonium nitrate fertilizer	UN 2067	not required
Ammonium persulfate	UN 1444	not required
Antimony tribromide	UN 1549	open or closed
Arsenic trioxide	UN 1561	open or closed
Bromoacetic acid	UN 1938	open or closed
Calcium cyanide, solid	UN 1575	Bulk bags not authorized
Calcium Hypochlorite, hydrated	UN 2880	Bulk Bags not authorized
Carbamate pesticide, solid N.O.S. (contains 15% or less aldicarb by weight	UN 2757	open or closed
Chloroacetic acid, solid	UN 1751	open or closed
Chromic acid, solid	UN 1463	Bulk bags not authorized
Magnesium granules, coated	UN 2950	closed only

MAY 21 1993

Poisonous solid, N.O.S. or Poison B, solid, N.O.S. (Amyl Phenol) (Butyl Phenol) (Octyl Phenol)	UN 2811	open or closed
Potassium dichloro-s-triazinetrione	UN 1479	open or closed
Potassium hydroxide, flake	UN 1813	open or closed
Potassium hydroxide, solid	UN 1813	open or closed
Potassium persulfate	UN 1492	not required
Sodium azide	UN 1687	open or closed
Sodium bifluoride	UN 2439	
Sodium chlorate	UN 1495	open or closed
Sodium dichloro-s-triazinetrione	UN 1479	open or closed
Sodium hydrosulfite	UN 1384	open or closed
Sodium hydroxide	UN 1823	open or closed
Sodium nitrate	UN 1498	not required
Sodium nitrite	UN 1500	not required
Sodium perborate monohydrate	UN 1479	open or closed
Sodium persulfate	UN 1505	not required
Sodium sulfide, anhydrous	UN 1385	Bulk bags not authorized
TEMIK (Aldicarb pesticide)	UN 2588	open or closed
Trichloroisocyanuric acid, dry	UN 2468	open or closed
Trichloro-s-triazinetrione, dry	UN 2468	open or closed
Waste arsenical mixture	UN 1557	open or closed
Zinc dust	UN 1436	closed only

APPENDIX

Trichloroisocyanuric acid, dry	UN 2468
Trichloro-s-triazinetrione, dry * *	UN 2468
Waste arsenical mixture, n.o.s. * * *	UN 1557
Zinc dust	UN 1436

* Transport by vessel not authorized.

* * This shipping description may be used only when all or part of the transport is by vessel. For transport by motor vehicle or rail freight, use "trichloroisocyanuric acid, dry."

* * For mixtures of arsenic compounds, the name(s) of the hazardous components of the mixture must appear in the parenthesis.

* * * * Packaging for calcium silicide must be hermetically sealed.

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Hazardous Material	UN Number
Aluminum bromide, anhydrous	UN 1725
Aluminum chloride, anhydrous	UN 1726
Aluminum nitrate	UN 1438
Ammonium hydrogen fluoride, solid	UN 1727
Ammonium nitrate	UN 1942
Ammonium nitrate-carbonate mixture	UN 2068
Ammonium nitrate fertilizer	UN 2067
Ammonium nitrate fuel oil mixture *	NA 0331
Ammonium persulfate	UN 1444
Antimony compound, inorganic, n.o.s.	UN 1549
Antimony tribromide	UN 1549
Arsenic trioxide	UN 1561
Arsenical compound, solid, n.o.s.	UN 1557
Antimony tribromide	UN 1549
Arsenic trioxide	UN 1561
Arsenical compound, solid, n.o.s.	UN 1557
Bromoacetic acid	UN 1938
Calcium carbide *	UN 1402
Calcium cyanide, solid *	UN 1575