



U.S. Department
of Transportation

**Research and
Special Programs
Administration**

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

SEP 29 2004

DOT-E 13359
(SECOND REVISION)

EXPIRATION DATE: May 31, 2006

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: BASF Corporation
Mt. Olive, New Jersey
2. PURPOSE AND LIMITATION:
 - a. This exemption authorizes the transportation in commerce of certain non-DOT specification spherical pressure vessels containing boron trifluoride. 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 §§ 173.301(f)(6) and 173.302(a) in that a non-DOT specification spherical pressure vessel not fitted with a pressure relief device is not authorized, except as specified herein.
5. BASIS: This exemption is based on the application of BASF Corporation dated December 24, 2003, and supplemental information dated March 5, 2004, June 2, 2004, and June 10, 2004, submitted in accordance with § 107.105 and the public proceeding thereon and additional information dated August 6, 2004.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous Materials Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Boron trifluoride	2.3	UN1008	N/A

7. SAFETY CONTROL MEASURES:a. PACKAGING -

(1) Packagings prescribed are 205 non-DOT spherical pressure vessels made by CITERGAZ SA, designated as Model C11S000D and conforming to CITERGAZ SA Drawing 110006 dated 8-7-97 on file with the Office of Hazardous Materials Exemptions and Approvals (OHMEA). Each pressure vessel is sequentially numbered with an owner's serial number in the range of 88 - 292. New construction is not authorized.

(2) Each pressure vessel is designed and constructed in accordance with ASME Code Section VIII, Division 1, but is not "U" stamped.

(3) Each pressure vessel conforms to the following design data:

Shell Material	Carbon steel alloy P355NL2
Water capacity	600 liters (160 gallons)
Outside Diameter	1111 mm
Wall thickness	33 mm
Design pressure	150 bar (2175 psig)
Bottom openings	Prohibited
Corrosion allowance	0.0 mm

(4) Each pressure vessel is permanently mounted on a steel pallet with forklift pockets.

b. TESTING -

(1) Prior to first use under the terms of this exemption and every three years thereafter:

(i) Each pressure vessel must be hydrostatically tested at 300 bar (4350 psig) using: the direct expansion method specified in the Compressed Gas Association (CGA) Pamphlet C-1; the direct expansion method provided in Annex F (Volumetric expansion testing of gas cylinders) to European Standard EN 1968:2002 - the non-water jacket volumetric expansion test; or another direct expansion method approved by the Associate Administration for Hazardous Materials Safety. Permanent volumetric expansion may not be greater than 10% of the total volumetric expansion at test pressure.

(ii) A Brinell Hardness Test must be performed on each pressure vessel at 2 locations 180° opposite each other. Test locations may not be on the circumferential weld, but must be within 10 cm (4 inches) of the weld. The Brinell Hardness Number must not exceed 240.

(2) In addition, each pressure vessel must be given an external and internal examination, wall thickness measurement and leakage test in accordance with the CITERGAZ SA procedures on file with OHMEA every three years.

c. OPERATIONAL CONTROLS -

(1) During transport each vessel must have the discharge outlet valve sealed with a leakproof, threaded cap, and a protective steel cover closed over the valve assembly.

(2) Two alternative filling limits are authorized as follows:

(i) 325 kg (716.5 pounds), or

(ii) 500 kg (1102 pounds), if refrigerated to maintain a lading temperature of 15°C (59°F) or below.

(3) Emergency response information provided with the shipment and available via an emergency response telephone number must indicate that the receptacles are not fitted with pressure relief devices and provide appropriate guidance in case receptacles are exposed to fire.

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 modification or change is made to the package or its contents 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. Each pressure vessel must be plainly and durably marked on opposing side near the middle, in letters and numerals at least 5 cm (2 inches) high on a contrasting background, "DOT-E 13359".

9. MODES OF TRANSPORTATION AUTHORIZED: Motor vehicle, rail freight or cargo vessel.

10. MODAL REQUIREMENTS: A current copy of this exemption must be carried aboard each cargo vessel or 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:

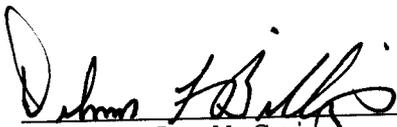
- o All terms and conditions prescribed in this exemption and the Hazardous Materials Regulations, 49 CFR Parts 171-180.
- o Persons operating under the terms of this exemption must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.
- o Registration required 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 this 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.:

for 

Robert A. McGuire
Associate Administrator for
Hazardous Materials Safety

SEP 29 2004

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.

SEP 29 2004

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: DL/MT