1. **GRANTEE:** Arkema France
   Colombes, France

   **US AGENT:** Arkema, Inc.
   King of Prussia, PA

2. **PURPOSE AND LIMITATION:**
   a. This special permit authorizes the transportation in commerce of certain non-DOT specification spherical pressure vessels containing boron trifluoride. This special permit provides no relief from the Hazardous Materials Regulations (HMR) other than as specifically stated herein. The most recent revision supersedes all previous revisions.

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

   c. No party status will be granted to this special permit.

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

4. **REGULATIONS FROM WHICH EXEMPTED:** 49 CFR §§ 173.315(a)(1) and 173.315(a)(2) in that non-DOT specification pressure vessels are not authorized, except as specified herein.
5. BASIS: This special permit is based on the application of Arkema, Inc. dated April 8, 2021 and submitted in accordance with § 107.109.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

<table>
<thead>
<tr>
<th>Hazardous Materials Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Proper Shipping Name</strong></td>
</tr>
<tr>
<td>Boron trifluoride</td>
</tr>
</tbody>
</table>

7. SAFETY CONTROL MEASURES:

a. PACKAGING: Packaging prescribed is a non-DOT specification spherical pressure vessel designed, constructed, inspected, and tested in accordance with ASME VIII Division 1 standards and conforming to GLI Ets CITERGAZ’s drawing, XCE110004, which is on file with the Office of Hazardous Materials Safety Approvals and Permits Division. Each pressure vessel is permanently mounted on a steel pallet with forklift pockets and has the following design characteristics:

<table>
<thead>
<tr>
<th>Design Code</th>
<th>ASME VIII Division 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Material of Construction</td>
<td>Carbon steel (ASME SA-302 Grade C)</td>
</tr>
<tr>
<td>Water Capacity</td>
<td>600 liters (160 gallons)</td>
</tr>
<tr>
<td>Outside Diameter</td>
<td>1,120 mm (44 inches)</td>
</tr>
<tr>
<td>Minimum Wall Thickness</td>
<td>3.94 cm (1.551 inch)</td>
</tr>
<tr>
<td>Working Pressure</td>
<td>200 bar (2,900 psig)</td>
</tr>
<tr>
<td>Test Pressure</td>
<td>300 bar (4,351 psig)</td>
</tr>
<tr>
<td>Corrosion Allowance</td>
<td>0.0 mm (0.0 inch)</td>
</tr>
</tbody>
</table>
b. **OPERATIONAL CONTROLS:**

(1) Each valve assembly must be equipped with a securely attached protective steel cap to protect valves from damage during transportation.

(2) Minimum outage requirements specified in § 173.24b shall be met.

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

c. **REQUALIFICATION:**

(1) At least once every 5 years, each pressure vessel must be externally and internally visually inspected and hydrostatically tested at test pressure (300 bar) in accordance with the EN 14876:2007-04 standard, *Transportable gas cylinders - Periodic inspection and testing of welded steel pressure drums.*

(2) Following successful completion of the above inspection and testing, the inspector must prepare a written record of testing, and durably mark the packaging with the month and year of the test and inspection along with the inspector’s identifying symbol/mark.

d. **MARKING:** Each packaging must be plainly and durably marked “DOT-SP 20830”.

8. **SPECIAL PROVISIONS:**

a. Under the terms of this special permit, the grantee may only offer hazardous materials (i.e., the grantee is not authorized as a carrier).

b. A person who is not a holder of this special permit who receives a package covered by this special permit may reoffer it for transportation provided no modification or change is made to the package and it is reoffered for transportation in conformance with this special permit and the HMR.
c. Any person who receives a package covered by this special permit may offer it for transportation when it contains only the residue of the authorized hazardous material listed in paragraph 6 above provided no modification or change is made to the packaging and the package is transported only to the grantee in conformance with this special permit. Securing a closure on the packaging prior to offering the package for transportation under this paragraph does not constitute a modification or change to the packaging.

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

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

10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each cargo vessel and motor vehicle used to transport packages covered by this special permit.

11. COMPLIANCE: Failure by a person to comply with any of the following may result in suspension or revocation of this special permit 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 special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.

   o Persons operating under the terms of this special permit 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 special permit must receive training on the requirements and conditions of this special permit in addition to the training required by §§ 172.700 through 172.704.
No person may use or apply this special permit, including display of its number, when this special permit has expired or is otherwise no longer in effect.

Under Title VII of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) — “The Hazardous Materials Safety and Security Reauthorization Act of 2005” (Pub. L. 109-59), 119 Stat. 1144 (August 10, 2005), amended the Federal hazardous materials transportation law by changing the term “exemption” to “special permit” and authorizes a special permit to be granted up to two years for new special permits and up to four years for renewals.

12. REPORTING REQUIREMENTS: Shipments or operations conducted under this special permit are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR §§ 171.15 Immediate notice of certain hazardous materials incidents, and 171.16 Detailed hazardous materials incident reports. In addition, the grantee(s) of this special permit must notify the Associate Administrator for Hazardous Materials Safety, in writing, of any incident involving a package, shipment or operation conducted under terms of this special permit.

Issued in Washington, D.C.:

[Signature]

for William Schoonover
Associate Administrator for Hazardous Materials Safety


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

PO: ae