1. GRANTEE: Taeyang Corporation  
   Cheonan-City, South Korea

   US AGENT: Sun America, Inc.  
   Torrance, CA

2. PURPOSE AND LIMITATION:
   a. This special permit authorizes the manufacture, marking, sale and use of a non-DOT specification non-refillable inside container conforming with all regulations applicable to a DOT Specification 2P inner non-refillable metal receptacle except for size, testing requirements, and marking as specified herein, for the transportation in commerce of the materials authorized by this special permit. 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 development of this special permit only considered the hazards and risks associated with transportation in commerce. The safety analyses did not consider the hazards and risks associated with consumer use or other uses not associated with transportation in commerce.

   c. In accordance with 49 CFR 107.107(a) party status may not be granted to a manufacturing permit. These packaging may be used in accordance with 49 CFR 173.22a.
3. **REGULATORY SYSTEM AFFECTED:** 49 CFR Parts 106, 107 and 171-180.

4. **REGULATIONS FROM WHICH EXEMPTED:** 49 CFR § 173.304a(a)(1) and § 173.304a(d)(3)(ii) in that a non-DOT specification packaging is not authorized except as specified herein and the maximum charging pressure is exceeded.

5. **BASIS:** This special permit is based on the application of Taeyang Corporation dated July 23, 2021 and submitted in accordance with § 107.109.

HAZARDOUS MATERIALS (49 CFR § 172.101):

<table>
<thead>
<tr>
<th>Hazardous Material Description</th>
<th>Hazard Class/Division</th>
<th>Identification Number</th>
<th>Packing Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butane</td>
<td>2.1</td>
<td>UN1011</td>
<td>N/A</td>
</tr>
<tr>
<td>Isobutane</td>
<td>2.1</td>
<td>UN1969</td>
<td>N/A</td>
</tr>
<tr>
<td>Petroleum gases, liquefied, or Liquefied petroleum gas</td>
<td>2.1</td>
<td>UN1075</td>
<td>N/A</td>
</tr>
<tr>
<td>Receptacle small, containing gas (gas cartridges) flammable, without release device, not refillable and not exceeding 1L capacity</td>
<td>2.1</td>
<td>UN2037</td>
<td>N/A</td>
</tr>
</tbody>
</table>

7. **SAFETY CONTROL MEASURES:**

   a. **PACKAGING:** Packaging prescribed is a non-DOT specification, non-refillable inside container having a water capacity not exceeding 61.02 cubic inches (1.00L), conforming to TaeYang Corporation drawings on file with the Office of Hazardous Materials Safety and meeting all the requirements specified in §§ 173.304a(d)(3)(ii) and 178.33 except as follows:

   $\S$ 178.33-2 **Type and size.**

   (b) * * *

   For packages not exceeding 0.47L capacity, the maximum inside diameter may not exceed 4.1028 inches (105.2 mm). For packagings not exceeding 1.00L capacity, the maximum inside diameter may not exceed 4.1591 inches (105.64 mm).
§ 178.33-7 Wall thickness.

(a) For packagings not exceeding 0.47L capacity, the minimum wall thickness of the body must be 0.0117 inches (0.30 mm) with a corresponding minimum bottom thickness of 0.0195 inches, (0.50 mm). For packagings not exceeding 1.00L capacity, the minimum wall thickness of the body must be 0.0141 inches (0.36 mm) with a corresponding minimum bottom thickness of 0.0236 inches (0.60 mm).

§ 178.33-8 Tests.

(a) Each 2,500 containers or less successively produced in a day must constitute a lot. These containers must be complete with ends assembled, of the same material, size, design, construction and finish.

(b) Five containers out of each lot of 2,500 containers or less successively produced must be pressure tested to determine the burst pressure. The containers must be complete with ends assembled. The minimum burst pressure may not be less than 250 psig.

(c) If any of the test containers in a lot fail the pressure test, that lot must be rejected, or ten additional containers selected at random from the lot may be subjected to the pressure test. Should any of the ten test containers fail the test the entire lot must be rejected.

(d) Each completed container filled for shipment must have been heated until the pressure in the container is equivalent to the equilibrium pressure of the contents at 130°F without evidence of leakage, distortion, or other defect.

(e) The containers authorized by this special permit must be packaged in outside packagings conforming to § 173.301(a)(9).

§ 178.33-9 Marking.

(a) * * *

(1) Each container must be marked “DOT-SP 12562” instead of “DOT-2P”.

(b) * * *

b. OPERATIONAL CONTROLS: Each container must be filled and tested in accordance with § 173.304a(d)(3)(ii) except that the maximum charge pressure may not exceed 51 psig at 70°F, and the pressure at 130°F may not exceed 138 psig.
8. SPECIAL PROVISIONS.

a. In accordance with the provisions of Paragraph (b) of § 173.22a, persons may use the packaging authorized by this special permit for the transportation of the hazardous materials specified in paragraph 6, only in conformance with the terms of this special permit.

b. A person who is not a holder of this special permit, but receives a package covered by this special permit, may reoffer it for transportation provided no modifications or changes are made to the inner packagings and it is offered for transportation in conformance with this special permit and the HMR.

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

d. Each outside packaging must be marked "INSIDE CONTAINERS CONFORM WITH DOT-SP 12562".

e. Each packaging manufactured under the authority of this special permit must be either (1) marked with the name of the manufacturer and location (city and state) of the facility at which it is manufactured or (2) marked with a registration symbol designated by the Office of Hazardous Materials Safety for a specific manufacturing facility.

f. A current copy of this special permit must be maintained at each facility where the package is manufactured under this special permit. It must be made available to a DOT representative upon request.

g. Transportation of Division 2.1 materials (flammable gases) are not authorized aboard cargo vessel unless specifically authorized in the Hazardous Materials Table (§ 172.201).

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 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.
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.

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.:

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 https://www.phmsa.dot.gov/approvals-and-permits/hazmat/special-permits-search

Photo reproductions and legible reductions of this special permit are permitted. Any alteration of this special permit is prohibited.

PO: Andrew Eckenrode