1. **GRANTEE:** Linde Inc.  
   Danbury, CT

2. **PURPOSE AND LIMITATION:**
   a. This special permit authorizes the transportation in commerce of dry metal catalyst in a non-DOT specification bulk packaging. This special permit provides no relief from the Hazardous Materials Regulations 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, use as a component of a transport vehicle or other device, or other uses not associated with 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 § 173.242 in that a non-DOT specification bulk packaging is authorized as provided herein.

5. **BASIS:** This special permit is based on the application of Praxair, Inc. dated November 18, 2021, submitted in accordance with § 107.109.
6. **HAZARDOUS MATERIALS (49 CFR 172.101):**

<table>
<thead>
<tr>
<th>Hazardous Materials Description</th>
<th>Hazard Class/Division</th>
<th>Identification Number</th>
<th>Packing Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metal catalyst, dry</td>
<td>4.2</td>
<td>UN2881</td>
<td>II</td>
</tr>
</tbody>
</table>

7. **SAFETY CONTROL MEASURES:**

a. **PACKAGING** - Packaging prescribed is a non-DOT specification bulk packaging. A representative layout is provided in Praxair drawing BAG-A-97-1647 dated December 12, 1997 on file with the Office of Hazardous Materials Safety Approvals and Permits Division (OHMSAPA). The packaging must conform to the following:

(1) Dimensions (Maximum): Diameter: 96 inches  
    Length: 114 inches  
    Capacity: 1000 gallons  
    Weight: 7500 lbs (net)

(2) Material: TP 304 Stainless Steel

(3) Maximum Allowable Working Pressure: 250 psig

(4) Pressure relief: maximum start-to-discharge pressure of 25.3 psig.

(5) Designed, constructed, inspected and AU@ stamped in accordance with ASME Code, Section VIII, Division 1.

(6) Insulated with fiberglass or perlite and jacketed with aluminum or carbon steel.

(7) Design loadings: The packaging, and its supports and securing devices must be designed for the following loads with the packaging filled to its maximum gross weight: Vertical - 2g; Horizontal - 2g concurrent with 1g down; and Lateral - 2g concurrent with 1g down.

b. **OPERATIONAL CONTROLS** - The metal catalyst must be shipped under a gas blanket of nitrogen or argon at a pressure of not less than 7 psig. Additionally, the maximum gas blanket pressure must not exceed 2 psig less than the start-to-discharge pressure of the pressure relief device.
8. **SPECIAL PROVISIONS:**

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

b. Shippers using the packaging covered by this special permit must comply with all provisions of this special permit, and all other applicable requirements contained in 49 CFR Parts 171-180.

c. Each packaging must be plainly and durably marked “DOT-SP 13110” as specified in § 172.302(b) and (c).

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

e. This special permit serves as a Competent Authority Approval (CA-9805007) issued by the Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Materials Safety Administration (PHMSA), of the United States Department of Transportation, in accordance with Paragraph 7.9 of the International Maritime Dangerous Goods (IMDG) Code.

9. **MODES OF TRANSPORTATION AUTHORIZED:** Motor vehicle and cargo vessel.

10. **MODAL REQUIREMENTS:**

a. A copy of this special permit must be carried aboard each cargo vessel or motor vehicle used to transport packages covered by this special permit.

b. For transport by cargo vessel, the packaging must be secured within a freight container or to a flat designed for containerized handling.

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. Section 5101 et seq:

   a. All terms and conditions prescribed in this special permit and the Hazardous Materials Regulations, 49 CFR Parts 171-180.

   b. 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.

   c. Registration required by 49 CFR 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 the 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: EW/SG/KAH