



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

April 18, 2025

1200 New Jersey Avenue, SE
Washington, DC 20590

DOT-SP 21503
(THIRD REVISION)

EXPIRATION DATE: 2029-03-31

(FOR RENEWAL, SEE 49 CFR 107.109)

1. GRANTEE: Samsung Austin Semiconductor, LLC
Austin, TX
2. PURPOSE AND LIMITATIONS:
 - a. This special permit authorizes the transportation in commerce of a DOT 3AL specification cylinder containing monochlorosilane by motor vehicle and cargo vessel. 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.
 - 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 § 173.304(a)(1) in that aluminum cylinders are not authorized for a material with a primary or subsidiary hazard of Class 8; and 173.304(a)(2) in that shipment of Division 2.1 materials in aluminum cylinders is not authorized for transportation by cargo vessel, except as described herein.
5. BASIS: This special permit is based on the application of Samsung Austin Semiconductor, LLC (SAS) dated January 10, 2025, submitted in accordance with § 107.105 and the public proceeding therein.

Tracking Number: 2025014449

6. HAZARDOUS MATERIALS (49 CFR 172.101):

Hazardous Material Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Liquefied gas, toxic, flammable, corrosive, n.o.s. (monochlorosilane) <i>Inhalation Hazard Zone C</i>	2.3	UN3309	N/A

7. SAFETY CONTROL MEASURES:

a. PACKAGING: Prescribed packaging is a seamless DOT-3AL specification cylinder manufactured by Maltani Metals Corp, Republic of Korea under CA2024030507. The cylinder must meet all requirements of DOT specification 3AL (§§ 178.35 and 178.46) and must be as described in Samsung Austin Semiconductor LLC's application on file with the Office of Hazardous Materials Safety (OHMS). The cylinder has a maximum volume of 10.2 liters; marked service pressure of 14.7 MPa (2132 psig) and minimum test pressure of 24.5 MPa (3553 psig). It must also meet the following burst requirement.

One cylinder from each production batch (max 200) to be used under the terms of this special permit must be hydrostatically pressure tested to destruction and the failure may not occur at less than 2.5 times the marked service pressure (36.75 MPa / 5330 psig). The cylinder must remain in one piece. Failure must initiate in the cylinder sidewall in a longitudinal direction. Rate of pressurization may not exceed 1.38 MPa (200 psig) per second.

b. OPERATIONAL CONTROLS:

(1) The shipping paper must identify the cylinders with the special permit number "DOT-SP 21503".

(2) Prior to being offered in transportation, each cylinder must be inspected for leakage, damage, or corrosion in accordance with Appendices B and O of the application on file with OHMS.

(3) This special permit is limited to import shipments of filled cylinders for use at the Taylor Samsung Semiconductor Facility and return shipments to the supplier. These cylinders may not be filled in the United States.

(4) Cylinders authorized under this special permit:

- (i) Must be used exclusively in monochlorosilane service.
 - (ii) Prior to first use, the internal layer of the cylinder must be passivated by exposure to monochlorosilane in accordance with SK Materials passivation process, as described in Samsung Austin Semiconductor, LLC's application on file with the Office of Hazardous Materials Safety.
- (5) Samsung must maintain by serial number a record of all cylinders transported under the terms of this special permit and the number of shipments made in each cylinder. This report must be made available to a PHMSA representative upon request.
- (6) Cylinders authorized under this special permit may be transported by cargo vessel only when loaded into closed cargo transport units.
- (7) Motor vehicle transportation is only authorized to/from the port of arrival/departure, the Manor Warehouse and the Taylor Samsung Semiconductor Facility in Taylor, Texas.
- c. MARKING: The outside of each package must be plainly and durably marked "DOT-SP 21503".
- 8. SPECIAL PROVISIONS: 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 and cargo vessel.
- 10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each cargo vessel or 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.:



for William Schoonover
Associate Administrator for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, East Building PHH-13, 1200 New Jersey Avenue, Southeast, Washington, D.C. 20590.

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: RS/TG