



U.S. Department
of Transportation

East Building, PHH - 30
1200 New Jersey Avenue, Southeast
Washington, D.C. 20590

**Pipeline and Hazardous
Materials Safety Administration**

DOT-SP 15110
(SECOND REVISION)

EXPIRATION DATE: April 30, 2017

(FOR RENEWAL, SEE 49 CFR § 107.109)

1. GRANTEE: Kidde Technologies, Inc., dba Kidde Aerospace & Defense
Wilson, NC
2. PURPOSE AND LIMITATIONS:
 - a. This special permit authorizes the manufacture, marking, sale and use of non-DOT specification cylinders (fire extinguishers) that are used as components on US Army tactical vehicles and commercial buses or as components on US Navy aircraft. The cylinders conform to all regulations of non-reusable DOT specification 39, except 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, use as a component of a transport vehicle or other device, or other uses not associated with transportation in commerce.
3. REGULATORY SYSTEM AFFECTED: 49 CFR Parts 106, 107 and 171-180.
4. REGULATIONS FROM WHICH EXEMPTED: 49 CFR §§ 173.302 and 173.302a in that a non-DOT specification cylinder is not authorized, except as specified herein.

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5. BASIS: This special permit is based on the application of Kidde Aerospace and Defense (KAD) dated May 17, 2013, and additional information dated June 14, 2013 submitted in accordance with § 107.105 and the public proceeding thereon.

6. HAZARDOUS MATERIALS (49 CFR § 172.101):

Hazardous Material Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Compressed gas, n.o.s. (<i>Mixture of Nitrogen and Sodium Bicarbonate</i>)	2.2	UN1956	N/A
Compressed gas, n.o.s. (<i>Mixture of Nitrogen and Potassium Bicarbonate</i>)	2.2	UN1956	N/A
Compressed gas, n.o.s. (<i>Mixture of Nitrogen and Potassium Bicarbonate Plus Urea (Monnex)</i>)	2.2	UN1956	N/A

7. SAFETY CONTROL MEASURES:

a. PACKAGING - Prescribed packaging is non-reusable, non-DOT specification cylinders designed and manufactured in accordance with Kidde Aerospace & Defense (KAD) cylinder weldment drawings 447235 Rev-E, 474629 Rev-F, and 474630 Rev-F along with their associated developmental drawings on file with the Office of Hazardous Materials Approvals and Permits (OHMAP) and the DOT Specification 39 (§§ 173.35 and 178.65) except as follows.

§ 178.65(a) *Type, Size, Service pressure, and Test Pressure.*

The cylinder weldment 447235 is a welded cylinder with test pressure of 1750 psig. The service pressure is not to exceed 1400 psig and the water capacity is limited to 45 cubic inch. Cylinder weldments 474629 and 474630 are welded cylinders with test pressure of 2058 psig. The service pressure is not to exceed 1225 psig and the water capacity is limited to 12 and 20 cubic inch respectively.

§ 178.65(b) *Material*

(1) Type ARMCO Nitronic 40 (21-6-9) austenitic stainless steel with the following analysis is authorized for the cylinder body with proper welding procedure.

CHEMICAL ANALYSIS	PERCENT
Carbon	0.040 max
Manganese	8.00/10.00
Phosphorous	0.060 max
Sulfur	0.030 max
Silicon	1.00 max
Chromium	19.00/21.50
Nickel	5.50/7.50
Nitrogen	0.15/0.40

(2) Not applicable

(3) and (4) * * *

§ 178.65(c) *Manufacture.*

(1) * * *

(2)

(i) thru (v) Not applicable

(vi) thru (vii) * * *

(3) and (4) * * *

§ 178.65(d) *Wall thickness*

(1) * * *

(2) * * *

(3) After processing, the steel must have minimum yield strength of 58,000 psi and minimum ultimate tensile strength of 108,000 psi.

§ 178.65(e) *Openings and attachments.* Openings and attachments are permitted on the cylinder heads but are not limited to being within an imaginary circle that is 80% of the diameter and concentric to the axis of the cylinder.

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Openings must be as shown on Kidde Aerospace & Defense drawings on file with the OHMAP.

§ 178.65(f) *Pressure tests*

(1) and (2) * * *

(3) A "lot" is defined as the quantity of cylinders (not to exceed 750) successively produced and having identical size, design, construction, heat of material, heat treatment, finish, and quality.

§ 178.65(g) *Flattening tests* * * *

§ 178.65(h) *Rejected cylinders* * * *

§ 178.65(i) *Markings.*

(1) * * *

(2)

(i) Applies except instead of DOT-39, cylinders must be marked "DOT-SP 15110".

(ii) thru (vii) * * *

(viii)(B) does not apply.

(3) and (4) * * *

b. **REQUALIFICATION TESTING** - Requalification is not applicable for these non-reusable/non-refillable cylinders.

c. **OPERATIONAL CONTROLS** -

(1) Cylinders authorized under this special permit are limited for use as components (fire extinguisher) on military vehicles or commercial buses or US Navy aircraft

(2) These cylinders are intended for one-time use only. Once discharged, they are not to be refilled or reused again.

(3) The cylinders must be equipped with a safety cap (anti-recoil cap) that prevents significant motion of the cylinder in the event of inadvertent discharge.

(4) Normal discharge for cylinder weldment 447235 is initiated by Metron; a small explosive actuator used to initiate discharge. The Metron actuator, though excluded from UN Class-1 designation, is classed under DOT EX-9411044. A normal discharge for cylinder weldments 474629 and 474630 is initiated with an actuating cartridge (Division 1.4C or 1.4S) installed in the discharge outlet. It is classed under DOT EX 2008020493. All cylinders are shipped with a shorting cap (faraday plug) installed to prevent an un-commanded discharge due to voltage buildup.

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 packaging covered by this special permit, may reoffer it for transportation provided no modification or change is made to the packaging 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 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 Approvals and Permits for a specific manufacturing facility.

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

f. The cylinders must be shipped in strong non-bulk outer packaging in accordance with § 173.301(a)(9).

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9. MODES OF TRANSPORTATION AUTHORIZED: Motor Vehicle, Rail Freight, Cargo Aircraft only and Cargo Vessel.
10. MODAL REQUIREMENTS: A current copy of this special permit must be carried aboard each cargo vessel, aircraft or motor vehicle used to transport packages covered by this special permit. The shipper must furnish a copy of this special permit to the air carrier before or at the time the shipment is tendered.
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.

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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 Dr. Magdy El-Sibaie
Associate Administrator for Hazardous Materials Safety

Address all inquiries to: Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Material Safety Administration, U.S. Department of Transportation, East Building PHH-30, 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 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: RShafkey/TG