



**Pipeline and Hazardous
Materials Safety Administration**

APPROVAL CA2017110002

(SECOND REVISION)

ISSUED BY THE COMPETENT AUTHORITY OF THE UNITED STATES

EXPIRATION DATE: December 31, 2022

1. **APPROVAL HOLDER:** BWI North America Inc.
Moraine, OH
2. **REGULATORY AUTHORITY:** 49 CFR § 173.306(f) (5).
3. **SYNOPSIS:** BWI North America Inc. is authorized to offer for transportation accumulators that do not conform to the requirements in § 173.306(f) (4) (i) but may be shipped in accordance with § 173.306(f) (4) (i.e., not subject to the Hazardous Materials Regulations (HMR), except as specified herein) when conforming to the terms of this approval. The most recent revision supersedes all previous revisions.
4. **BASIS:** This approval is issued in response to BWI North America Inc.'s modification application received on February 21, 2018.
5. **PERIOD OF VALIDITY AND CONDITIONS OF APPROVAL:** This approval does not provide relief from any requirement of the Hazardous Materials Regulations except as stated herein. This approval is valid until the posted expiration date or until terminated by the Associate Administrator for Hazardous Materials Safety.

- a. Approved Materials: Only the following material(s) may be transported under the terms of this approval.

Hazardous Materials Description			
Proper Shipping Name	Hazard Class/ Division	Identification Number	Packing Group
Articles, pressurized pneumatic	2.2	UN3164	N/A

- b. Safety Controls: Accumulators authorized for transport under the terms of this approval must comply with the following limitations:

- (1) Each accumulator must meet the requirements in § 173.306(f) (4);
- (2) The accumulator may not have a charge pressure that exceeds 85 psig at 72 °F;
- (3) The accumulator may not have a capacity exceeding 3.9 L;
- (4) The accumulator may not have a product of capacity expressed in liters and charge pressure expressed in bars that exceeds 22.9;
- (5) The accumulator must have a burst pressure of not less than 4.5 times its charge pressure at 70 °F; and
- (6) Each accumulator design type must comply with § 173.306(f) (4) (iii) and (iv).

- c. Testing Requirements: Testing must be performed on design types and on production lots as follows:

- (1) Design Type test: A design type is defined as that representing accumulators with identical bore size, design pressure, configuration, manufacturing methods, and materials of construction. At least one accumulator of each design type must be hydrostatically or

pneumatically pressurized to failure. Failure must be at a pressure not less than 4.5 times the charge pressure at 72 °F. The observed failure mode must be such that the device does not rocket or fragment.

- (2) Production lot test: A lot is defined as that quantity of 1,000 or fewer accumulators of the same design type, successively produced over a production shift not exceeding 10 hours. One accumulator, randomly selected from each lot shall be tested to destruction and must not burst below 4.8 times the charge pressure at 72 °F. If the test fails, the lot shall be rejected or 10 additional accumulators may be selected at random and subjected to the test. Should any of the ten accumulators thus tested fail, the entire lot must be rejected.

- d. Packaging Requirements: Accumulators must be shipped as an inside packaging.
 - e. Marking Requirements: Each package and overpack, if used, which has been prepared under the provisions of this approval must be plainly marked with the approval number.
 - f. When conforming to the requirements in paragraphs 5.b. through 5.e. above, accumulators may be shipped in accordance with § 173.306(f)(4) (i.e., not subject to the HMR, except as specified herein).
6. **MODES OF TRANSPORTATION AUTHORIZED**: Motor vehicle, rail freight, cargo vessel, passenger-carrying aircraft and cargo aircraft.
 7. **SPECIAL PROVISIONS**:
 - a. A current copy of this approval must be maintained and made available for examination at each location where packagings authorized under this approval are manufactured, marked, or tested.
 - b. A current copy of this approval must be maintained and made available for examination at each facility where the package is offered or reoffered for transportation under its authority.

- c. Any person who receives a package covered by this approval may reoffer it for transportation provided no modification or change is made to the packaging (i.e., accumulator) or its contents and it is reoffered for transportation in conformance with this approval.
- d. This approval in no way affects the need to obtain any required authorizations from other agencies of the United States Government or from the competent authorities of countries of origin, transit and destination.
- e. The approval holder must maintain a record that contains a listing of the approximate number of packagings manufactured, marked, sold, used and tested under the terms of the approval.
- f. All of the above information must be made available upon request to a DOT representative or an enforcement official.
- g. Shipments or operations conducted under this approval are subject to the Hazardous Materials Incident Reporting requirements specified in 49 CFR 171.15 - Immediate notice of certain hazardous materials incidents, and 49 CFR 171.16 - Detailed hazardous materials incident reports. In addition, the approval holder must notify the Associate Administrator for Hazardous Materials Safety, in writing, of any incident involving a package, shipment, or operation conducted under the terms of this approval.

8. **GENERAL PROVISIONS:**

- a. Failure by any person to comply with the terms and conditions of this approval and the Hazardous Materials Regulations, 49 CFR Parts 171-180, may result in the modification, suspension or termination of that person's authority to use this approval. Failure to comply may also subject that person to penalties prescribed by 49 U.S.C. §§ 5123 and 5124. This approval may be modified, suspended or terminated in its entirety if that action is justified in light of changes in circumstances or additional information not available when this approval was issued. Unless immediate modification, suspension or termination is

necessary to avoid a risk of significant harm to persons or property, before action is taken, that person will be notified and provided with an opportunity to show why the proposed action should not be taken.

- b. Each "Hazmat employee," as defined in § 171.8, who performs a function subject to this approval must be provided training on the requirements and conditions of this approval in addition to the training required by §§ 172.700 through 172.704.
- c. Any person operating under the terms of this approval must comply with the security plan requirement in Subpart I of Part 172 of the HMR, when applicable.

Issued in Washington, D.C.

Dated: 05/16/2018

A handwritten signature in blue ink, appearing to read 'William Schoonover', is written over a faint circular stamp.

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, Department of Transportation, Washington, D.C. 20590. Attention: PHH-31.