



U.S. Department
of Transportation

Pipeline and Hazardous
Materials Safety Administration

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

APPROVAL CA2011030036
(FIFTH REVISION)

ISSUED BY THE COMPETENT AUTHORITY OF THE UNITED STATES

EXPIRATION DATE: October 31, 2025

1. **APPROVAL HOLDER:** Mauser USA, LLC
dba Mauser Packaging Solutions
East Brunswick, NJ
United States
2. **REGULATORY AUTHORITY:** 49 CFR § 178.601(h) – Approval of
equivalent packaging.
3. **SYNOPSIS:** Mauser USA, LLC dba Mauser Packaging Solutions is
authorized to use recycled plastic materials in the
manufacture of UN1H1 and UN1H2 plastic drums and UN3H1 and
UN3H2 plastic jerricans at the Packing Group II and III
performance levels. The most recent revision supersedes
all previous revisions.
4. **BASIS:** This approval is issued in response to Mauser USA,
LLC dba Mauser Packaging Solutions' renewal application
dated September 21, 2020.
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 unless suspended or terminated by the Associate
Administrator for Hazardous Materials Safety.
 - a. **Applicability:** This approval applies to the
manufacture in the U.S. of UN1H1 and UN1H2 plastic
drums and UN3H1 and UN3H2 plastic jerricans at the
Packing Group II and III performance levels.
 - b. **Approved Materials:** All materials authorized to be
transported in UN1H1 and UN1H2 plastic drums and UN3H1
and UN3H2 plastic jerricans at the Packing Group II

and III performance levels may be transported in packagings authorized under the terms of this Approval.

c. Packaging:

- (1) Prescribed packagings must be UN1H1 and UN1H2 plastic drums as described in the initial approval application dated January 10, 1997 submitted by the Plastic Drum Institute of the Society of Plastics Industry, Inc. and any additional information submitted therewith
- (2) Prescribed packagings must be UN3H1 and UN3H2 plastic jerricans.
- (3) The minimum thickness of a plastic drum or jerrican must be in accordance with 49 CFR 173.28(b) (4) .

d. Quality Assurance Program: Mauser USA, LLC dba Mauser Packaging Solutions shall employ a quality assurance program for evaluating and controlling recycled plastic material used in the manufacture of plastic drums or jerricans to ensure the following:

- (1) Sorting and cleaning used plastic material and identification of resins: Only resins, which have been prepared and evaluated under Mauser USA, LLC dba Mauser Packaging Solutions' quality assurance program and determined to be suitable for use may be used in drum or jerrican manufacture. All recycled material selected for use must be cleaned in a manner that removes residue from the prior lading.
- (2) Batching: For purposes of this approval, a batch of resin from recycled material is not more than 250,000 pounds of resin that has been sorted and selected as detailed in Mauser USA, LLC dba Mauser Packaging Solutions' quality assurance program and is identified with regard to:
 - (i) Source of the recycled material (e.g., drums, intermediate bulk containers, etc.) and description of the sorting process.

- (ii) Previous lading of recycled containers, including identification of hazardous materials, if applicable.
 - (iii) Results of the resin specifications set forth in paragraph 5.d.(4) below.
- (3) Rejection of unsuitable material. Mauser USA, LLC dba Mauser Packaging Solutions may not use a resin from recycled material which:
 - (i) Is made from containers, which previously contained a Division 6.1 material;
 - (ii) Does not conform to the resin specifications set forth in paragraph 5.d.(4) below; and
 - (iii) Is otherwise determined to be unsuitable under Mauser USA, LLC dba Mauser Packaging Solutions' quality assurance program.
- (4) Resin Specifications:
 - (i) Mauser USA, LLC dba Mauser Packaging Solutions shall verify that each batch of recycled plastics material has the proper melt flow rate, and density, consistent with that of the design type manufactured from such recycled material. This evaluation shall be conducted in accordance with the following standards:
 - (A) Melt Flow Rate - ASTM D-1238, Standard Test Method for Flow Rate of Thermoplastics by Extrusion Plastometer.
 - (B) Density - ASTM D-1505, Standard Test Method for Density of Plastics by Density-Gradient Technique; or ASTM D 792, Standard Test Method for Density and Specific Gravity (Relative Density) of Plastics by Displacement.
 - (ii) Each batch of resin must demonstrate:

(A) A melt index (HMLI), when tested in accordance with ASTM D-1238 at 21.6 kg and 190 °C, that does not exceed the ranges specified below:

(1) Recycled resin with an HLMI range of < 4 must be within ± 1.5 grams per 10 minutes;

(2) Recycled resin with an HLMI range of $\geq 4 < 8$ must be within ± 2 grams per 10 minutes; or

(3) Recycled resin with an HLMI range of $> 8 \leq 12$ must be within ± 2.5 grams per 10 minutes.

(B) A density, when tested in accordance with either ASTM D-1505 or D-792, within the range of 0.960 ± 0.02 g/cc.

(5) Manufacture of drums or jerricans using recycled material

(i) Performance Testing. Performance testing must be conducted as required by Part 178, Subpart M at the appropriate packing group level. Periodic testing of drums must occur at least every 12 months, and periodic testing of jerricans must occur at least every 30 days.

(ii) Marking. In addition to the marking requirements of 49 CFR 178.503, each drum or jerrican shall be marked in a permanent manner (e.g., embossed) in a lettering size conforming to 49 CFR 178.3(a) with the following:

(A) The statement "Not for food or drink", unless otherwise authorized by a Federal governmental agency; and

(B) The letters "REC", which indicate the drum or jerrican is manufactured from recycled material.

- e. Documentation and Record Retention: In addition to the record retention requirements of 49 CFR 178.601(1), Mauser USA, LLC dba Mauser Packaging Solutions shall maintain for as long as a drum or jerrican is produced and for two years thereafter, and make available upon request by DOT representatives at the manufacturing facility, the following information:
 - (1) A copy of Mauser USA, LLC dba Mauser Packaging Solutions' quality assurance program.
 - (2) For each resin used in the manufacture of a drum or jerrican:
 - (i) The source of the recycled material (e.g., drums, intermediate bulk containers, etc.) and description of the sorting process.
 - (ii) Previous lading of recycled containers, including identification of hazardous materials, if applicable.
 - (iii) Results of the resin specifications set forth in paragraph 5.d.(4) above.
- 6. **MODES OF TRANSPORTATION AUTHORIZED**: As authorized by the Hazardous Materials Regulations for the hazardous materials to be transported.
- 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 location where materials are packaged and offered for transportation under its authority.
 - c. Any person may use the packaging(s) authorized by this Approval for the transportation of the hazardous materials specified in paragraph 5.b. above, only in conformance with the terms of this approval.

- d. Any person who receives a package covered by this approval containing hazardous materials may reoffer it for transportation provided no modification or change is made to the package and it is reoffered for transportation in conformance with this approval.
- e. 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.
- f. The approval holder must maintain a record that contains a listing of the number of packagings manufactured, marked, and sold under the terms of the approval. This record must be made available upon request to a DOT representative or an enforcement official.
- g. Notwithstanding the provisions of this approval, a UN marking placed on a packaging constitutes the approval holder's certification that the packaging is capable of meeting all of the applicable UN performance testing requirements of 49 CFR Part 178, Subpart M.
- h. 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 Associate Administrator for Hazardous Materials Safety must be notified 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: November 10, 2020



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-30.