



U.S. Department  
of Transportation  
**Pipeline and Hazardous  
Materials Safety  
Administration**

1200 New Jersey Avenue, SE  
Washington, DC 20590

## **Safety Advisory Notice<sup>1</sup>: Unsafe Cylinders Being Sold Online by Major Retailers to Consumers and HVAC Contractors**

### **I. Overview**

The U.S. Department of Transportation (DOT) Pipeline and Hazardous Materials Safety Administration (PHMSA) is issuing this safety advisory notice to request that consumers, retailers, shippers, and DOT-regulated entities ensure their cylinders containing hazardous gases are in compliance with the hazardous materials regulations (HMR; 49 CFR parts 171-180)<sup>2</sup> by verifying their cylinders are marked in accordance with a DOT specification or United Nations (UN) standard, and shipped in accordance with the HMR prior to entering into transportation.

*The contents of this safety advisory do not have the force and effect of law and are not meant to bind the public in any way. This safety advisory is intended only to provide information to the public regarding existing requirements under the HMR.*

### **II. Summary**

PHMSA is issuing this safety advisory notice to bring attention to unauthorized cylinders being filled with hazardous materials and transported in commerce in support of a business operation, which could cause significant damage to property, physical injury, or death. PHMSA has found several instances of empty cylinders being sold to consumers, shippers, and heating, ventilation, and air conditioning (HVAC) personnel and service technicians that were not manufactured to a DOT specification or UN standard and lack certification markings.

Unlike cylinders manufactured to DOT specification or UN standards, these cylinders are not designed to contain and safely transport hazardous materials. PHMSA has determined that these cylinders are primarily manufactured by non-U.S. companies. The non-U.S. manufacturers selling these non-specification cylinders have not marked or certified them as suitable for hazardous materials service, which would be a violation of the HMR. Without sufficient evidence to show a violation of the HMR, PHMSA cannot take enforcement action. In addition to the inherent safety risks, filling unauthorized cylinders is punishable by civil penalty and/or criminal prosecution. (See 49 CFR 107.307.)

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<sup>1</sup> This document contains guidance provided to help the regulated community understand how to comply with regulations, but its contents are not substantive rules themselves and do not create legally enforceable rights, assign duties, or impose new obligations not otherwise contained in the existing regulations and standards.

<sup>2</sup> 49 CFR Parts 171-180, available at: <https://www.ecfr.gov/current/title-49/subtitle-B/chapter-I/subchapter-C>

### **III. Supplementary Information**

PHMSA's mission is to protect people and the environment by advancing the safe transportation of hazardous materials in commerce. To achieve its mission, PHMSA establishes national policy, sets and enforces regulations (i.e., the HMR), educates stakeholders, and conducts research to prevent hazardous materials incidents. Additionally, federal hazardous materials law authorizes the Secretary of Transportation (the Secretary) to "prescribe regulations for the safe transportation, including security, of hazardous materials in intrastate, interstate, and foreign commerce" 49 U.S.C. 5103(b)(1). As such, the Secretary has delegated this authority to PHMSA as specified in 49 CFR 1.97(b). PHMSA's regulations (i.e., the HMR) are designed to achieve three primary goals:

1. Ensure that hazardous materials are packaged and handled safely and securely during transportation.
2. Effectively communicate the hazards of the materials being transported to transportation workers and emergency responders.
3. Minimize the consequences of an accident or incident, should one occur.

### **IV. Safety Issue**

As part of its safety mission, PHMSA regulates the transportation of hazardous gases, in addition to the packagings that are designed to contain these materials. These packagings include DOT specification and UN specification cylinders. PHMSA has recently observed a concerning trend pertaining to these cylinders. Specifically, cylinders that are not authorized for the safe filling or transport of gases are being sold online by major retailers. PHMSA is particularly concerned that these cylinders are not manufactured to a DOT specification or UN standard, lack certification markings as required by the HMR, and are being sold to consumers, and HVAC personnel and service technicians. For cylinders that are used for activities such as outdoor grilling or camping, consumers should ensure their cylinders are in compliance with the HMR for their own safety. Likewise, technicians are supposed to use authorized DOT specification or UN standard cylinders to extract or recover refrigerant gas from systems in need of repair or replacement, so that the cylinder can be safely and legally transported. See 49 CFR 173.301(a)(1). Also, it is important to note that refrigerant gases cannot simply be vented into the atmosphere<sup>3</sup> as they are damaging to the environment. As such, cylinders containing the extracted refrigerant gas must be transported to Environmental Protection Agency (EPA) reclaimers for additional processing. See Section 608 of the Clean Air Act.

While the initial shipment of empty cylinders is not within PHMSA's regulatory purview, once these unauthorized cylinders are filled and transported to an EPA-certified reclaimer, they are in violation of the requirements of the HMR. See 49 CFR 173.301. Regardless of the intended application, use of unauthorized cylinders that do not adhere to the regulations for the safe manufacture, use, and periodic requalification of cylinders can lead to the release of high-pressure hazardous gases, posing serious health and safety risks. These risks include fires,

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<sup>3</sup> See 40 CFR 82.154(a)(1).



explosions, inhalation injuries, and death to transportation workers, emergency responders, and the general public.

## V. Identification of Authorized Cylinders

The HMR contain comprehensive requirements for compressed gas cylinder design, construction, testing, and periodic requalification intended to ensure that compressed gas cylinders are safe for transportation. See 49 CFR Subchapter C Subpart G. Cylinders designed, constructed, and tested to meet these requirements are marked “DOT” (i.e., DOT-4BW240) to indicate their compliance with these standards. The DOT also recognizes similar international standards, such as UN ISO 9809, and recognized UN ISO cylinders are also authorized for use in the United States, provided they are marked “USA” or “CAN” as the country of approval.<sup>4</sup>

Cylinders that do not comply with the HMR requirements as indicated by a “DOT” or other authorized certification marking may not be used to transport compressed gases or any other hazardous material in commerce. See 49 CFR 180.3(b)(1). If an unauthorized cylinder has been purchased but not filled, the owner should return the empty cylinder to its point of sale. If an unauthorized cylinder has been purchased and filled, the owner should enlist the assistance of a licensed and trained HVAC technician to dispose of the cylinder. To help identify a cylinder that is in compliance with the HMR, an example of where to look for a marking string for a DOT specification cylinder is provided below. In addition, when considering cylinders on online marketplaces for purchase, it is recommended that consumers review the item specification or description, or seller feedback for an indication of compliance with DOT regulations.

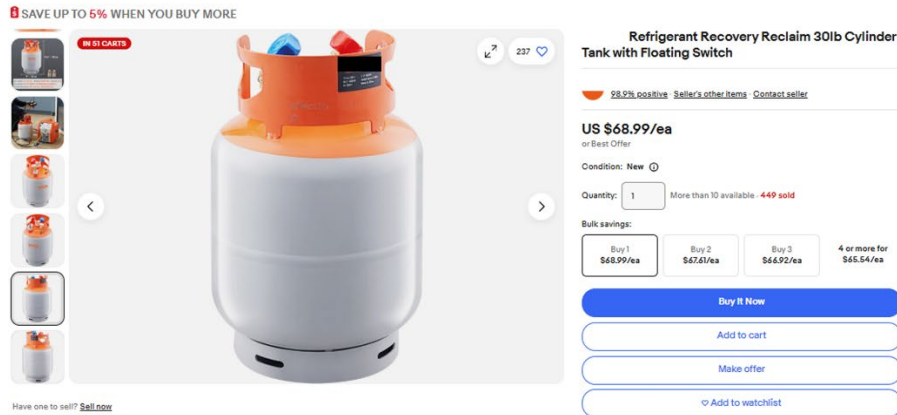
### SAFE TO FILL AND TRANSPORT?

Specification Cylinder	Key Differences	Non-Specification Cylinder
	<ul style="list-style-type: none"><li>Look for DOT or UN Markings on the cylinder</li><li>Purchase only from authorized dealers</li><li>Avoid “knock-off” or significantly cheaper alternative</li></ul>	

Remember: Using non-specification cylinders for Hazardous Materials is dangerous and illegal. Your safety is worth the investment!

<sup>4</sup> See 49 CFR §§ 171.7, 171.12, 171.23, and 178.70-178.71 for additional information on the use of Canadian and UN ISO cylinders in the United States.

## EXAMPLE



## VI. Future Actions

PHMSA will continue to investigate and monitor the sale and use of non-compliant cylinders, and will issue updated guidance when additional information is available.

## VII. Additional Resources from PHMSA

PHMSA has additional resources on cylinder-related regulations that complement this safety advisory notice. These resources include:

1. Is Your Cylinder Safe to Fill?  
<https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/2023-08/Is-Your-Cylinder-Safe-to-Fill-PHH50-0201-0323.pdf>
2. PHMSA Cautions Against Refilling DOT-39 Cylinders.  
<https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/training/hazmat/56936/dot-propane-hazard-poster20180227.pdf>

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