



FAA Office of Hazardous Materials Safety

faa.gov/hazmat | hazmatinfo@faa.gov

Are You Shipping Aerosols?

Did you know aerosols are dangerous goods and are regulated for air transportation? When shipping or handling aerosols, such as beauty and personal care products, cleaning products, and other everyday consumer products, you must comply with the Hazardous Materials Regulations (HMR; <u>49 CFR Parts 171-180</u>). Choosing express or expedited shipping increases the likelihood of your shipment being transported by air. Even shipments offered to ground shipping services may be transported by air. As a shipper or freight forwarder, you must ensure aerosols are correctly prepared and declared for air transport when applicable. The safety of the aircraft, passengers, and crew depends on it.

What is the hazard?

- Aerosols contain contents under pressure. They can be flammable or non-flammable. In air transportation, vibrations, static electricity, temperature, and pressure variations can cause items to leak, start a fire, or even explode if these products are not appropriately handled. The consequences of such events can potentially be catastrophic, posing significant threats to the aircraft, passengers, crew, transportation workers, emergency responders, the public, and the environment.
- Aerosols can be safely transported by aircraft when properly packaged, labeled, and stowed. However, when a shipment of dangerous goods is improperly offered or undeclared, the threats to our National Airspace System (NAS) increase.
- Note that some aerosols are <u>forbidden</u> from being transported aboard aircraft. See the <u>Hazardous</u> <u>Materials Table (HMT; § 172.101)</u> to identify these forbidden aerosols.

What is an aerosol?

- Aerosols (see § 171.8) are articles consisting of any non-refillable receptacle containing a gas compressed, liquefied, or dissolved under pressure. The sole purpose of the receptacle is to expel a nonpoisonous (other than a Division 6.1 Packing Group III material) liquid, paste, or powder, and it is fitted with a self-closing release device, allowing the contents to be ejected by the gas.
- Common examples include bug sprays, sunscreen, shaving cream, dry shampoo, hairspray, deodorants, spray paint, whipped cream, cooking oil sprays, spray starch, and cleaning products.
- Note that in the HMR, compressed or flammable gases in a receptacle that do not expel a product (i.e., a liquid, paste, or powder) are <u>not</u> considered aerosols, though they may look similar. These products are regulated as compressed or flammable gases, as applicable. Examples include oxygen or CO2.

How do I ship aerosols?

- As a shipper or freight forwarder, you must comply with the HMR (<u>49 CFR Parts 171-180</u>). This includes adhering to the <u>packaging</u> and <u>hazard communication</u> requirements specified for your product based on its classification. A person who violates the HMR may be subject to <u>civil or criminal penalties</u>.
- Remember that <u>training</u> is required for any <u>hazmat employee</u> (see <u>Part 172 Subpart H Training</u>).
- Refer to the FAA <u>SafeCargo</u> webpages for more <u>overview of requirements</u>.





FAA Office of Hazardous Materials Safety

faa.gov/hazmat | hazmatinfo@faa.gov

Are aerosols considered a limited quantity?

- Aerosols are shipped as a <u>limited quantity</u>. You must adhere to the applicable requirements in §§ <u>173.306</u> and <u>173.27</u> of the HMR.
- Note that a limited quantity package prepared for ground shipment is **<u>not</u>** authorized for air transport.

As a freight forwarder, how do I know if a package contains aerosols if a shipper has not declared that to me?

- Look for product keywords that could indicate the presence of aerosols, such as 'spray paint,' 'spray cleaner,' 'spray lubricants,' 'spray sealants,' 'spray solvents,' 'bug spray,' 'suncare products,' or 'spray adhesives.' <u>Any keywords</u> that suggest contents under pressure or an aerosol-like application or expulsion could indicate an aerosol. Even vague descriptions such as 'cleaning products,' 'haircare products,' or 'suncare products' can indicate an aerosol.
- Consider processes and controls in your operations to recognize, identify, and refuse or accept aerosols. If you handle and ship aerosols, you must comply with the HMR shipping requirements, including hazmat employee training.
- The requirements for the ground transport of aerosols are different from those for air transport. Therefore, when transferring shipments between ground and air modes, be aware that a package initially shipped by ground may lack the correct packaging or the required hazard markings or labels. Any package provided to an air carrier must fully comply with air shipping requirements, including required packaging and hazard markings and labels.
- If you discover undeclared aerosols in transportation, you must <u>report</u> the incident to the Department of Transportation (<u>Hazardous Materials Incident Report</u> [DOT Form F 5800.1] see § 171.16)).

Questions?

• You may contact the FAA Office of Hazardous Materials Safety via e-mail at <u>hazmatinfo@faa.gov</u> or via voice message at **405-954-0088**.