



U.S. Department
of Transportation
**Research and
Special Programs
Administration**

400 Seventh Street, S.W.
Washington, D.C. 20590

AUG 15 2002

Mr. Ted A. Rust
Packaging & Shipping Manager
Raytheon Company
2501 W. University, M/S 8000
Mckinney, TX 75070

Reference No. 02-0188

Dear Mr. Rust:

This is in response to your letter dated July 10, 2002 requesting clarification of the requirements in §§ 173.306(e) and 173.307, under the Hazardous Materials Regulations (HMR; 49 CFR parts 171-180). Specifically, you ask whether your device, which you refer to as a "cooler, cryogenic" meets the defining criteria for a refrigerating machine.

In your letter, you describe the "cooler, cryogenic" as containing very small amounts of compressed helium gas, averaging approximately 0.005 kg of gas, pressurized to between 200 and 400 psi in a cylindrical shaped housing with a maximum capacity of 85 cc. You state that, because this device is mounted in other equipment during operation, you believe the most appropriate proper shipping name would be "Refrigerating machine, 2.2, UN2857."

The HMR govern the transportation of hazardous material in commerce. Under § 173.22, it is the shipper's responsibility to properly classify a hazardous material or determine that it does not meet a hazard class definition in Part 173. It is our opinion that your device would be considered a refrigerating machine if it meets the defining criteria identified in § 173.306(e)(1)(i) thru (viii). Please note that § 173.306(e) applies to **new (unused)** refrigerating machines and or components thereof. In addition, we agree that your device would qualify under § 173.307(a)(4)(i). As you are aware, this provision provides that a refrigerating machine, including refrigerating machine components, containing 12 kg (25 pounds) or less of a non-flammable, non-toxic gas is not subject to the requirements of the HMR.

I hope this satisfies your request.

Sincerely,

Hattie L. Mitchell
Chief, Regulatory Review and Reinvention
Office of Hazardous Materials Standards



020188

173.306

**Raytheon
Systems
Company**

Betts
§ 172.101
§ 173.306

Raytheon Company
2501 W. University, M/S 8000
McKinney, TX 75070

Mr. Edward Mazzullo
Director, Office of Hazardous Materials Standards
US Department of Transportation
400 7th Street S.W.
Washington, D.C. 20590

*Proper Shipping
Name*
02-0188

10 July 2002

Dear Mr. Mazzullo:

Your assistance is requested in determining the Proper Shipping Name (PSN) for a product to be shipped to our customers in the U.S. Army, Navy, and Air Force. The item is referred to as a "Cooler, Cryogenic." These coolers contain very small amounts of Compressed Helium gas, averaging approximately 0.005 KG of gas, pressurized to between 200 and 400 PSI in a cylindrical shaped housing with maximum capacity of 85cc.

While a PSN of Helium, Compressed, Ltd. Qty. is one possibility, the Packaging Engineering Organization at Raytheon believes another PSN might more accurately describe our product. Because this product is mounted in other equipment and is used to cool down that equipment during operation, we believe a better PSN would be Refrigerating Machines, Class 2.2, UN2857. This PSN would result in the use of Packing Instruction 173.306 and 173.307. The benefit to Raytheon and our Armed Forces customers is the exception in 173.307(a)(4)(i), which would allow our product to be shipped as non-regulated material.

Attached is supporting data from the Night Vision and Electro Optics Division of the Army, based at Ft. Belvoir, VA, and an engineering drawing of the Cooler. We believe this information shows the cooler qualifies as a refrigeration machine, and due to its low volume of contained helium, allows us to use 173.307(a)(4)(i).

We request your ruling on whether the PSN of Refrigeration Machine, UN2857, may be used for this product, and the applicability of the exception stated in 173.307(a)(4)(i).

If additional information is needed, please contact me at 972-952-2281 (t-rust@raytheon.com), or John Hudson at 972-952-2290 (jhudson@raytheon.com).

Sincerely,



Ted A. Rust

Packaging & Shipping Manager

Raytheon Company

972-952-3060

cc: John Hudson, Raytheon Company

Attachments (2)