

## FREQUENTLY ASKED QUESTIONS REGARDING LITHIUM AND LITHIUM ION BATTERIES AND TRANSPORTATION REGULATIONS

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**1. Must consumer-sized lithium or lithium ion batteries be shipped as regulated dangerous goods/hazardous materials?**

No. Small, consumer-type lithium and lithium ion batteries are provided an exception from dangerous goods/hazardous materials regulations. For example, Special Provision 188 of the *UN Recommendations on the Transport of Dangerous Goods Model Regulations*, Special Provision A45 of the *ICAO Technical Instructions for the Safe Transport of Dangerous Goods by Air*, and Section 173.185 of the *U.S. Hazardous Materials Regulations* provide exceptions to the regulations. Thus, packages containing small, consumer-type lithium and lithium ion batteries DO NOT require the same markings, labels, and shipping papers as dangerous goods/hazardous materials.

**2. What is the difference between lithium and lithium ion batteries?**

The biggest differences are that lithium batteries contain lithium metal and are not rechargeable. Lithium ion batteries, however, do not contain lithium metal and can be recharged.

**3. What are some of the typical uses for lithium and lithium ion batteries?**

The small lithium and lithium ion batteries that are provided an exception to dangerous goods/hazardous materials regulations are used primarily in consumer applications. Small lithium batteries are often used in cameras and watches. Lithium ion batteries are commonly found in cellular phones and laptop computers.

**4. In what quantities are lithium and lithium ion batteries generally shipped?**

Lithium and lithium ion batteries are shipped in large and small quantities. For example, a single package may contain as few as five batteries, a pallet may contain more than 1,000 batteries, or they may be packed with or contained in equipment.

**5. Why do some packages of lithium and lithium ion batteries now contain a "Caution" marking?**

Manufacturers of lithium and lithium ion batteries began implementing a new *voluntary* air transportation communications program (VATCP) in 2001 as an added step in assuring air transportation safety of products that are currently excepted from

dangerous goods/hazardous materials regulations.

By early 2001, packages originating from program participants and shipped by air that contain more than small quantities of excepted lithium or lithium ion cells and batteries will carry a distinctive marking. It will clearly identify the presence of these cells and batteries. The program participants also will provide additional documentation or notification on shipping papers that these cells and batteries are being shipped and use upgraded packaging. Packages containing very limited quantities of cells and batteries will not carry the cautionary marking.

**6. Will all lithium and lithium ion battery manufacturers around the world participate in the VATCP?**

Participants in the program manufacture the vast majority of lithium and lithium ion batteries used in the world today. Starting on or about January 1, 2003, however, the *UN Recommendations on the Transport of Dangerous Goods Model Regulations*, and many other transportation regulations, will contain requirements similar to the provisions in the VATCP. Thus, modified packaging, additional documentation, and markings will be required for packages containing over a certain number of cells and batteries. THESE CELLS AND BATTERIES, HOWEVER, WILL STILL BE PROVIDED AN EXCEPTION FROM UN DANGEROUS GOODS/HAZARDOUS MATERIALS REGULATIONS.

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