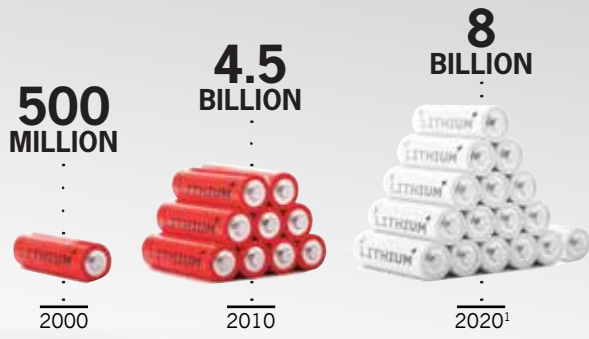




SHIPPING LITHIUM BATTERIES

There's no doubt lithium batteries deliver outstanding performance for portable power:

- + HIGH ENERGY OUTPUT
 - + LIGHT WEIGHT
 - + NO "MEMORY" EFFECTS
 - + RELATIVELY LONG CYCLE LIFE
- (REDUCED CAPACITY AFTER PARTIAL CHARGING)



PRODUCTION OF LI CELLS IS INCREASING

When damaged or short-circuited, lithium batteries can experience what's called

"THERMAL RUNAWAY"

which is a fancy way of saying they catch fire, explode, send out jets of flaming material, etc. This risk, especially on airplanes, has prompted increased regulation of lithium battery shipping. Two of the major governing organizations are:

US DOT Pipeline and Hazardous Materials Safety Administration (PHMSA)

International Air Transport Association (IATA)

Cargo carriers and foreign countries can impose their own restrictions and requirements.



THE RULES HAVE CHANGED

What do you need to know?

On August 6, 2014, PHMSA* and the FAA issued new requirements for shipping lithium batteries. Mandatory compliance begins February 6, 2015. Shippers will need to determine:

*Pipeline and Hazardous Materials Safety Administration

THEY'RE EVERYWHERE

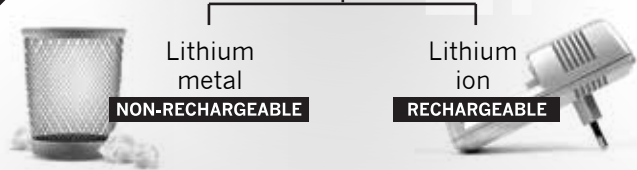
- Notebook computers
- Tablets
- Cameras
- Cell phones
- Medical devices
- E-cigarettes
- Power tools
- Hybrid/electric vehicles

Most common in portable consumer electronics

AND THEY'RE IN

WHAT'S THEIR ELECTRIC CAPACITY AND NUMBER?

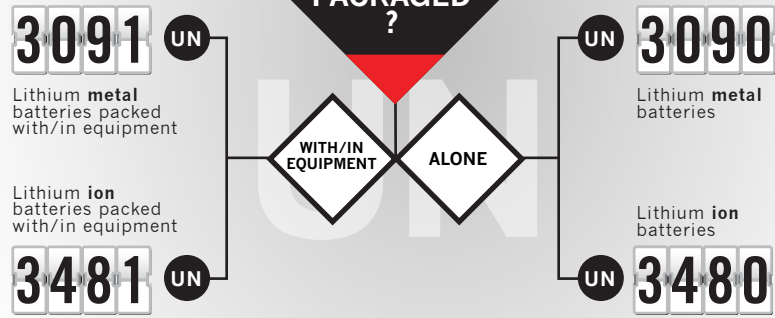
WHAT'S THE TYPE OF LITHIUM BATTERY?



The **TOTAL ELECTRICAL CAPACITY** of your shipment (in watt-hours)

The **CAPACITY/NUMBER** of the individual batteries and cells

HOW ARE THEY PACKAGED?



Shipping lithium batteries can be complicated, but Labelmaster can provide you with real-time expertise matched with the most comprehensive assortment of products, software, and services to help you ship lithium batteries safely and efficiently every time.

SIMPLE COMPLIANT SOLUTIONS

LABELMASTER

SOFTWARE PRODUCTS SERVICES

¹Cox, Jerry. Transportation of Hazardous Materials in Plain English Packaging. 2013