Technology Resources

Technology products are one of the industry's hottest product categories. Despite their popularity, there are inherent risks that come with these products. Professionals in the promotional products industry that source and sell tech products must be aware of and understand the risks and their obligation to protect their customers and consumers from serious injury.

It is important for companies to understand the complex regulatory environment surrounding lithium-ion batteries before a recall ever occurs. This will help avoid any delays that could lead to additional fines, liability, or brand damage.

The purpose of this page is to provide resources for where to locate guidelines, protocols and procedures for handling and shipping promotional tech products. With the help of these tools, organizations are encouraged to develop policies and procedures within their own organizations that will allow them to self-regulate and offer specific assurances to customers.

DANGERS

Video: Simulation of Internal Short Circuits in Lithium-Ion Cells
Video: Safety Issues for Lithium-Ion Batteries
Video: Civil Aviation Regulator (UKCAA) Video: Lithium Battery – Passenger Handling - Example Thermal Runaway
Video: Good Morning America - Samsung Cellphone - Non-OEM Battery Fire
Video: UL Power Bank

STANDARDS DEVELOPMENT AND MANAGEMENT

American Society For Testing And Material (ASTM)
Founded in 1898, one of the oldest standards developing organizations is a globally recognized leader in the development and delivery of international voluntary consensus standards. Today, some 12,000 ASTM standards are used around the world to improve product quality, enhance safety, facilitate market access and trade, and build consumer confidence.

Department of Transportation (DOT)
U.S. agency responsible for ensuring a fast, safe, efficient, accessible and convenient transportation system that meets our vital national interests and enhances the quality of life of the American people, today and into the future.

Pipeline and Hazardous Materials Safety Administration (PHMSA)
Agency of the U.S. Department of Transportation that develops and enforces regulations for the safe, reliable, and environmentally sound operation of the nation's daily shipments of hazardous materials by land, sea, and air.


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**International Air Transport Association (IATA)**
The trade association for airlines worldwide. IATA represents over 260 airlines (equal to roughly 83% of the world's total air traffic). They aviation activity and help develop and maintain industry policies.

- Dangerous Goods Regulations (DGR)
- DGR Print Manuals
- Hazard Labels
- Handling Labels
- Lithium Batteries
- Lithium Batteries Risk Mitigation Guidance for Operators
- Lithium Battery Shipping Guidelines (LBSG) - 3rd Edition
- Dangerous Goods Documentation - The 57th edition of the Dangerous Goods Regulations (DGR)
- Passenger Dangerous Goods Corner
- Dangerous Goods Shipper’s Declaration (DGD)
- IATA FAQs

**International Electrotechnical Commission (IEC)**
Prepares and publishes international standards for all electrical, electronic and related technologies.

- IEC 62133
- IEC 62281

**Institute of Electrical and electronics Engineers (IEEE)**
Publishes technical literature in electrical engineering, computer science, and electronics and develops international standards for telecommunications, information technology, and power-generation products and services.

- IEEE 1625

**International Organization of Standards (ISO)**
An independent, non-governmental membership organization and the world’s largest developer of voluntary international standards.

**National Electrical Manufacturers Association (NEMA)**
Provides a forum for the development of technical standards, advocacy of industry policies on legislative and regulatory matters, and collection, analysis, and dissemination of industry data.

- NEMA Standards
- NEMA C18.2M Part 2 (portable rechargeable cells and batteries)
Nationally Recognized Testing Laboratory (NRTL)
Independent facilities that are recognized and accredited by OSHA to test products against consensus product safety standards developed by standards-writing bodies. NRTLs evaluate and test products to determine compliance and are authorized to place a Listed Mark to certify passing products. NRTLs are not always accredited to perform the same tests so it is important to work with each lab to determine whether they are recognized to certify and mark the product.

List: [Current List of NRTLs](#)

Occupational Safety & Health Administration (OSHA)
As part of the U.S. Department of Labor, OSHA is responsible for the safe and healthful working conditions for working men and women by setting and enforcing standards and by providing training, outreach, education and assistance.

Portable Rechargeable Battery Association (PRBA)
Represent the rechargeable power industry on legislative, regulatory and standards issues at state, federal and international levels.

United Nations (UN)
International organization formed to increase political and economic cooperation among member countries through economic and social development programs, improving human rights and reducing global conflicts.

- [UN 3480](#)
- [UN 3481](#)

Globally Harmonized System of Classification and Labelling of Chemicals (GHS)
An international program intended to bring consensus for classifying and labeling hazardous chemicals by ensuring the safe manufacturing, handling, use, disposal and transport of hazardous materials through the use of currently available data.

International Civil Aviation Organization (ICAO)
UN agency that manages the administration and governance of the Convention on International Civil Aviation. Works with member states and industry groups to develop international civil aviation standards and recommended practices (SARPs).

- [ICAO Technical Instructions](#)
- [ICAO Dangerous Goods Panel (DGP)](#)
International Maritime Organization (IMO)
UN agency with "global standard-setting authority for the safety, security and environmental performance of international shipping. Its main role is to create a regulatory framework for the shipping industry that is fair and effective, universally adopted and universally implemented."

International Maritime Dangerous Goods (IMDG) Code

UL
Global independent safety science company with more than a century of expertise innovating safety solutions from the public adoption of electricity to new breakthroughs in sustainability, renewable energy and nanotechnology. Certifies, validates, tests, verifies, inspects, audits, advises and educates.

Resources
UL New Science

Standards
UL Standards
UL 2054 Household and Commercial Batteries
UL 2056 Power Banks
UL 1642 Lithium Batteries

DISPOSAL

Electronics Recycling Coordination Clearinghouse (ERCC)