



## Safe

Lead batteries are a safe, reliable and trusted technology for everyday energy storage.

### Safe for Diverse Applications

For decades, lead batteries have safely powered the transportation, communication, security, logistics, medical, marine and aviation sectors.

- + The world **entrusts 75 percent of its rechargeable energy storage** needs to lead batteries.<sup>1</sup>
- + Lead batteries help to safely transport Americans via **public transportation 35 million times** each weekday.<sup>2</sup>
- + Consumers can feel confident that lead batteries are a **safe energy source**, when used properly:
  - An aqueous electrolyte prevents battery fires.
  - Lead batteries can withstand up to a 167°F under-hood temperature. (Some newer battery technologies are known to combust at temperatures over 131°F.)
  - Lead batteries are the only storage technology that can reliably operate in conditions as cold as -22°F.<sup>3</sup>

### Safe for Employees

The lead battery industry puts employee health and safety first, meeting or exceeding federal and state requirements.

- + The 2017 Sustainable Consortium Impact Report recognized the industry for its **strong record on worker health and safety**.
- + The **U.S. industry exceeds OSHA standards** by providing **progressive** safety training, on-site hygiene facilities and **modern** safety equipment, including state-of-the-art engineering controls.
- + For many years, no employee in the lead battery industry has had a blood lead level exceeding the current OSHA removal limit, and at the end of 2016, average blood lead levels were **more than 75 percent below what OSHA requires**.<sup>4</sup>
- + Manufacturers and recyclers use high-efficiency systems to filter facility air to **ensure a safe workplace atmosphere**.



Lead battery technology is **proven, straightforward and well understood**.

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Modern, closed-loop recycling keeps more than **122 million lead batteries** from landfills each year.<sup>6</sup>

## Safe for Our Communities

The lead battery industry strives to continually advance processes to protect communities and the environment.

- + Lead battery manufacturing is one of the most **highly regulated industries in the U.S.**, subject to strict air and water release limits that protect public health.
- + Air emissions from lead battery production and recycling are each **less than one percent** of total U.S. lead emissions.<sup>5</sup>

## Vital Power: Advanced Lead Batteries



Safe



Innovative



Sustainable



Essential

Learn more at [EssentialEnergyEveryday.com](http://EssentialEnergyEveryday.com)



**Essential Energy Everyday** exists to increase awareness of the critical importance of lead batteries in powering our daily lives. We encourage continued investment in sustainable lead battery technology to store and provide energy on demand. Our initiative is supported by the two global trade associations that represent the lead battery and lead industries, **Battery Council International** and the **International Lead Association**.

<sup>1</sup> *The Rechargeable Battery Market and Main Trends 2014–2025*, Avicenne Energy, March 2015

<sup>2</sup> [apta.com/mediacenter/ptbenefits/pages/factsheet.aspx](http://apta.com/mediacenter/ptbenefits/pages/factsheet.aspx), American Public Transportation Association, 2017

<sup>3</sup> *A Review of Battery Technologies for Automotive Applications*, Joint Analysis: EUROBAT, ILA, JAMA, KAMA, ACEA, 2014

<sup>4</sup> Battery Council International, 2017

<sup>5</sup> [Epa.gov/air-emissions-inventories/national-emissions-inventory-nei](http://Epa.gov/air-emissions-inventories/national-emissions-inventory-nei), Environmental Protection Agency, 2014

<sup>6</sup> *National Recycling Rate Study*, Battery Council International, 2017