OREGON LITHIUM-ION BATTERIES

LITHIUM-ION BATTERIES

or Li batteries, are one of the most common types of batteries used today. They are found in cellphones, laptop computers, electric cars, and personal transportation devices, including e-Bikes and e-Scooters. Introduced in 1991, there are two types of Li batteries, primary and secondary. Primary batteries are a non-rechargeable battery that use a metallic lithium, which is extremely reactive, especially with water and will combust when it reaches temperatures above 350 F. Secondary Li batteries are a rechargeable battery that uses a mixture of Lithium ions and conductive material. With the rise of fires related to lithium-ion batteries, please read the following information to interact with this type of battery more safely.

HAZARDS OF LITHIUM BATTERIES

- Lithium is highly reactive!
 - High pressure, heat, and water damage can cause explosions
- Damage to the battery can cause short circuiting, resulting in energy release.
 - Energy released can cause nearby batteries to explode in a reaction called thermal runaway
- Byproducts can be released which can cause other damage
 - These include Carbon Monoxide, Hydrogen gas and Hydrocarbons which are also combustible.

WHAT TO DO!

- Due to many factors, including the risk of fire, <u>UO policy</u> prohibits the storage and charging of e-Bikes and e-Scooters outside of the two approved areas, located at the Millrace Parking Garage and the west side of the Erb Memorial Union.
- In the event of a fire, evacuate immediately and call **911** and **UOPD** at (541)346-2919. Only use a fire extinguisher if trained and willing.
- All lithium batteries are considered <u>universal waste</u>, so they cannot be disposed of in the trash.
 - Bring all non-alkaline batteries to the EHS office at 072 Onyx Bridge for disposal
 - If the battery is puffed, then bring it to EHS in a secondary container.
- Do not leave charging lithium-ion batteries unattended!
- If a battery has burst, evacuate the area and call 911. Once out of the area, call UOPD Dispatch at (541) 346-2919, who will alert the EHS manager on duty to assist.



Safety and Risk Services 1260 University of Oregon Eugene, OR 97403 safety.uoregon.edu/safetysheets Environmental Health and Safety ehsinfo@uoregon.edu 541-346-3192

Hazardous Program Waste Coordinator Seth Sponcey ssponcey@uoregon.edu



The photo above shows the remains of a Li-battery powered skateboard that was left unattended while charging in a university building.



Non-alkaline batteries cannot be disposed of in the trash! Bring them to EHS for disposal.



including cellphones, laptops, and

*Does not act in place of official training. Contact EHS for more information. Updated: 07/24

electric cars!