SAFETY ALERT NO. 1 /2022

University of South Australia

Rechargeable Batteries

1. Summary of Incident / Background

As the use of rechargeable batteries continues to climb their accompanying hazards become more prevalent, particularly with Lithium-based chemistries. These kinds of batteries have been known to overheat, melt, ignite and explode under certain conditions. Fire investigators are seeing a rise in the number of fires caused by lithium-ion batteries, such as those used in:

- Small hand tools – pipettes, cordless hand vacuums.
- Workshop tools – cordless drills etc.
- Personal transport - scooters etc.
- Electric forklift and Elevated Work Platforms.

2. Identified Hazard/s

Using chargers with the incorrect voltage and/or current can lead to device overheating and fires. These batteries are designed to be able to hold a significant amount of energy and once ignited a lithium fire is very difficult to extinguish. As a self-sustaining fire, they are extremely fast burning and release hazardous fumes.

3. Actions Required

With a rising number of such fires in the community, it is important to use rechargeable batteries safely:

- Use only quality batteries and chargers from reputable manufacturers and suppliers.
- Check the charger bears the Australian Regulatory Compliance Mark or equivalent to show it has met relevant standards.
- Only use the charger that is supplied with the device, compatible with the battery specifications and in accordance with manufacturer's directions.
- DO NOT leave batteries charging overnight. Cease charging once the batteries are fully charged. **Charging timers and battery charging cabinets are available – contact the Chemical Safety Officer or Safety & Wellbeing Team for assistance.**
- DO NOT use batteries that show signs of physical or internal damage (bulging, leaking, cracked, dented).
- Recharge batteries on a safe surface well away from any flammable materials and in a well-ventilated area.
- If a laptop/ tablet/ phone battery overheats and becomes swollen, stop using it and arrange for the battery or laptop to be replaced. Refer to the Dell Knowledgebase for further advice on preventative measures.

Refer to relevant fire authorities for further information e.g. SA MFS NSW Fire WA DMIRS
Firefighter injured in lithium battery fire blast at Griffith University

Contact: Charles Nelson, University Chemical Safety Officer, (08) 8302 6838
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Safety & Wellbeing Website

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