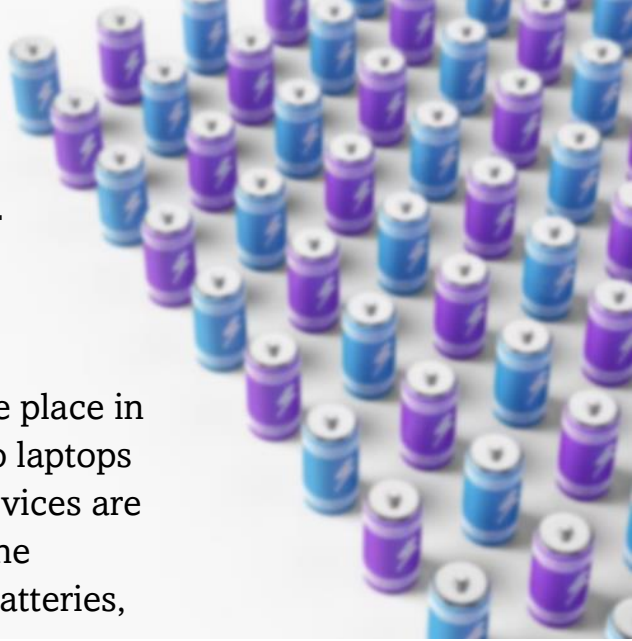# MITIGATING RISK: FIRE SAFETY PRECAUTIONS FOR LITHIUM-ION BATTERY APPLICATIONS

Lithium-ion batteries have found an inevitable place in our day-to-day lives. From electric vehicles to laptops and mobile phones, most of our electronic devices are being operated using such batteries. Due to the immense power-holding capacities of these batteries, they may turn extremely dangerous at times.

Safety Precautions while using Lithium-ion batteries

1. Use devices certified by national agencies such as ISI, BIS, UL, RoHS, CE, etc.
2. Charge and store lithium-ion batteries as instructed by the manufacturer.
3. Do use manufacturer-approved chargers and cables.
4. Make sure the battery heat dissipation system is installed by the vehicle manufacturer.
5. Ensure the vehicle battery has an IP65 (Ingress Protection) rating or higher.
6. When the battery casing or battery itself starts to heat, leak, or look swollen, turn off the power and contact the service center.
7. Do not use the device or the vehicle in such a scenario as it can cause a fire.
8. Use only original batteries, chargers, and adapters.
9. Do store batteries in a cool and dry environment.
10. Avoid storing batteries near flammable material.
11. Ensure that the vehicle warns the user if the batteries are overheating.
12. Follow the manufacturer's guidance on extinguishing small battery fires with ABC dry chemicals, class D fire extinguishers (for lithium metals), dirt, or sand.
13. Check the lithium-ion batteries periodically. Regular inspection of batteries during the mobile/vehicle service can help avert dangers.
14. Do follow the proper disposal methods for old or damaged batteries.
15. Store batteries away from flammable material.

1. Don't dispose of batteries in landfills, get them to a certified scrap dealer who can properly recycle them.
2. Don't overcharge batteries.
3. Do not overload the outlet used for charging.
4. Switch the charging off for your device or vehicle before you leave the house. Do not leave them in charging mode in your absence.

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