

What are the hazards and how might they harm?



Fire as a result of overheating



Explosion as a result of overheating



Chemical burns from contact with corrosive chemicals



Trip injuries from trailing cables

What PPE should the individual wear?



Goggles and chemical resistant gloves must be worn when handling damaged batteries

What other precautions should be taken?



If at any time you have any concerns or doubts, stop and speak with your line or duty manager.

Safe use and storage of lithium-ion (Li-ion) batteries

Safety Task Card
STCGE 33

Unit Managers – use page overleaf to list any hazards and control measures specific to your site which are not listed below

Safe System of Work

USE

1. You should only use rechargeable batteries on completion and sign-off this Safety Task Card.
2. Check the battery is correct for the appliance and visually check it for damage prior to connecting it.
3. Always handle batteries with care and avoid dropping, striking or puncturing them.
4. Visually check batteries before returning them for storage or charging and follow the storage instructions.
5. If at any stage you become aware that a battery has been damaged or dropped, even if there is no visible external damage, you must alert your line manager and immediately remove the battery from use.
 - Place the battery in a metal container with sand, in a suitable metal flammable material storage cabinet or in a flameproof bag, where possible external to the building. Where removable Li-ion batteries are used, it is mandatory to have one of these options available.
 - If by exception, there is not one of these options available, contact your line manager and batteries must then be placed on the ground in a secure area outside of the building, away from people and combustible materials.
 - Do not handle a damaged battery directly. Wear goggles and chemical resistant gloves and carry the battery in a container with sand or in a flameproof bag.

DISPOSAL

1. Batteries must be collected & disposed of safely via the supplier or manufacturer as soon as is possible. Damaged Lithium-ion batteries can cause thermal heating and explosion. They must never be placed in general waste.
2. Ensure any batteries awaiting disposal are stored away from any combustible materials or flammable gases etc., in a metal container with sand, in a suitable metal flammable material storage cabinet or in a flameproof bag.

Continued on reverse

If you have any concerns, stop and speak with your line manager before proceeding.

List any additional hazards or risks you have identified, and control measures required to manage these.

Safe use and storage of lithium-ion (Li-ion) batteries continued

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Safe System of Work

STORAGE (of removable batteries)

1. Follow the manufacture's storage requirements.
2. Store batteries in a cool, dry place away from water and high-humidity environments, protected from direct sunlight and heat sources. Store away from combustible materials and gases.
3. Batteries must be stored securely at low level, to minimise the risk of damage should they fall.
4. Ensure batteries are not left in contact with conductive materials that could cause short circuits.
5. Regularly check stored batteries for any signs of damage or degradation.
6. Where a large number of batteries (10 or more) are stored in one location, they must be stored in a suitable metal flammable material storage cabinet. Contact your HSE Lead or Regional H&S Manger for further guidance.
7. The person responsible for the building fire risk assessment must have been made aware of the storage locations.
8. It is best practice but not essential (unless a site requirement or identified by risk assessment) to use a fireproof Li-ion battery bag to store a small number of batteries in. Batteries stored in a metal flammable material storage cabinet do not require an additional fireproof bag. Contact your HSE Lead or Regional H&S Manger for guidance.

CHARGING

1. Always use the charger provided with the device or batteries being charged and refer to manufacturers' guidance.
2. Ensure that the charging cable does not pose a trip hazard.
3. Visually check batteries for damage and leaks before charging them.
4. Charge batteries on a flat and stable surface in a cool, dry and well-ventilated area, away from flammable or combustible materials. Do not cover batteries or the device being charged.
5. Stop charging once batteries are fully charged and don't leave them on continuous charge.
6. Spare batteries, that will not be used for extended periods, should be stored at around 50% charge.
7. Check batteries at the end of charging. Batteries that are hot, have changed shape or are leaking, have taken an excessively long time to charge, loose charge or don't hold charge must be removed from use immediately (as per point 5 In the USE section on Page 1 of this Safety Task Card).

If you have any concerns, stop and speak with your line manager before proceeding.