



# LITHIUM ION FIRES 101

## WHAT EVERY WORKPLACE SHOULD KNOW.

What the warning signs, gases and fire-blanket limitations mean for emergency planning.



### 1 Hazardous gases can appear before flames

A battery may release heat, vapour and hazardous gases before visible fire. Hissing, unusual odour, rising temperature and swelling can be early warning signs.

### 2 Thermal runaway can spread from cell to cell

Rising temperature can trigger a self-sustaining chemical reaction. Heat may move into neighbouring cells, causing intense fire, explosions and repeated ignition.

### 5 The danger may continue after visible flames subside

Hazardous gases and heat may remain, and reignition is possible. Isolation, thermal or atmospheric monitoring and continued observation may be required.

### 3 A fire blanket contains. It does not extinguish thermal runaway

A suitable blanket may help contain flames and debris, reduce radiant heat and limit spread. It does not stop the internal battery reaction.

### 4 Indoor or confined-space deployment may add risk

Covering an actively involved EV battery can change how gases accumulate or escape. Current guidance warns of a significant deflagration risk indoors or in confined spaces.

## WHAT A FIRE BLANKET CAN AND CANNOT DO

Containment can support an emergency response, but it has important limits.

### HELPS TO

- ✓ Contain flames and burning debris
- ✓ Reduce radiant heat
- ✓ Limit fire spread
- ✓ Help contain smoke

### DOES NOT

- ✓ Stop thermal runaway
- ✓ Remove gas or explosion hazards
- ✓ Replace evacuation or emergency services
- ✓ Serve as the only control for a large EV fire



## HOUSING LITHIUM- ION BATTERIES IN YOUR FACILITY?

Speak to a Levitt-Safety specialist today.

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