

## POWER TOOL RECHARGEABLE BATTERY SAFETY

Rechargeable batteries provide power to many kinds of devices including portable maintenance equipment. In rare cases, they can cause a fire or explosion. The following safety guidelines apply to rechargeable batteries.

### Purchasing

- Buy batteries from reputable suppliers approved by a Nationally Recognized Testing Laboratory (NRTL).
- Follow the manufacturer's instructions for lower and upper temperature limits for charging, use, and storage. Some batteries may only be stored in temperatures between 34 and 104 degrees F and charged at room temperature.

### Usage

- Inspect before each use and if impacted during use - Do not use damaged or bulging batteries. Signs of a battery that should be taken out of service and replaced include cracks, any type of white coating, the battery doesn't charge, or loses the charge quickly after being removed from the charger.
- Do not mix battery types or use old and new batteries together.
- Avoid conductive materials near battery terminals.
- Protect batteries from water, chemicals, and salts. Do not submerge them.
- Disconnect batteries immediately if they emit an unusual smell, develop heat, or bulge. If they smoke or catch fire, call 911 and activate the fire alarm.
- Never modify batteries.

*NRTLs*



### Charging, Storage, and Transport

- Follow the manufacturer's instructions for charging and using approved equipment.
- Avoid charging near exits.
- Place batteries on non-conductive and non-combustible surfaces.
- Secure batteries during transport and protect contacts from short circuiting on conductive materials during transport.
- Store batteries in a cool, dry, and well-ventilated room away from flammable materials.
- Never charge damaged or defective batteries. Mark them as "Damaged - Do Not Use."

*Fire Safety*



### Signs of a Problem

- For leaking, bulging, or hot batteries, call the Office of the Fire Marshal's on-duty fire inspector at 203-432-6888.
- Stop using lithium-ion batteries if you notice these problems: odor, change in color, too much heat, change in shape, leaking, or if you hear odd noises coming from the battery. If it is safe to do so, power off and move the device away from anything that is flammable. If the battery starts to smoke or catches fire, call 911 and activate the fire alarm pull station in the building you are in, if it has a fire alarm.

### Battery Disposal

- Intact lithium-ion batteries cannot be discarded in the general trash (see above for leaking batteries). They must either have their terminals covered with tape, or each battery must be placed in an individual plastic bag. For proper disposal, (1) label each battery, or battery collection container, "universal waste batteries" and add the accumulation start date; (2) store inside a building; and (3) submit a chemical waste pickup request via Yale's Environmental Health & Safety (EHS) Integrator right away.

### Additional Resources

*NFPA Resources*



*CPSC Video*

