Alert

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COZEN O'CONNOR

Subrogation & Recovery Alert

News Concerning Recent Subrogation and Recovery Issues

Battery Problems Spread to Smartphones

After more than a decade of laptop battery fires, coupled with the surge in new battery operated devices causing fires (including hoverboards and e-cigarettes), it seemed almost impossible that news of a new string of battery-powered product fires would feel surprising. But now the battery issue has spread to the smartphone. Last week Samsung announced a voluntary recall of 2.5 million phones worldwide because of a battery problem inducing fires in a small percentage of their Galaxy Note 7s. This version of the Galaxy Note was only released a few weeks before the recall. The U.S. Consumer Product Safety Commission and Samsung are urging all owners of the Galaxy Note 7 smartphones to stop using these devices immediately. The company reported being informed about 35 incidents of the Note 7 catching fire while charging. It is noteworthy that other smartphone brands have received reports of a fire originating from their phones. In March of this year an iPhone 6 reportedly caught fire during an Alaska Airlines flight to Hawaii — flight attendants put out the fire quickly.

Currently there are more than 190 million smartphone users in the United States alone, representing approximately 60 percent of the entire U.S. population. Smartphones operate on small lithium-ion batteries. The continued surge in battery product fires make it timely to recap some of the reasons batteries are so prone to catastrophic failure. The liquid inside most lithium-ion batteries is highly flammable. If the battery short-circuits, either by puncturing the incredibly thin sheet of plastic separating the positive and negative sides of the battery or by contamination in the manufacturing process, the liquid electrolyte can heat up so quickly that the battery explodes. In fact, a study performed last year by chemical engineers at University College London found that a faulty battery can go from normal to explosive in milliseconds, providing no notice to the consumer of the impending failure. The specific defect with the battery can vary. Some include:

- **Lack of Proper Venting**: Lithium-ion batteries are supposed to be properly vented to keep cool. If the battery at issue was not manufactured with any venting or it was not manufactured properly, then the battery can overheat and potentially cause a fire.
- **Contamination**: One of the major causes of a battery failure is a contamination of some sort entering the battery during the manufacturing process. The contaminant(s) can damage the separator between the positive and negative sides of the battery, resulting in a fire.
- **Lack of Adequate Protection**: Due to the sensitive and explosive nature of batteries discussed above, it is critical that products containing batteries are adequately protected from external damage. This can be challenging since most of the products operating on lithium-ion batteries, including smartphones, e-cigarettes, and hoverboards, are inherently exposed to dropping and related damage.
- **Lack of Proper TCO**: Most products today contain or should contain some sort of thermal cutoff designed to cut power to the product when temperatures reach a dangerous level. Preventing excessive temperatures in lithium-ion battery devices is critical because once the overheating starts it can lead to thermal runaway in which temperatures continue escalating at dangerously high levels.

Due to the explosive nature of batteries, determining the specific defect in a battery fire case can be challenging. Eliminating alternative ignition sources, as always, is a critical first step. With regard to smartphone fires, investigators will also want to gather as much information on the use

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of the phone, including whether aftermarket chargers were being used, whether the phone was left in a car or otherwise exposed to extreme temperatures, and whether the phone experienced any external damage before the fire.

Cozen O'Connor Subrogation & Recovery attorneys will continue to monitor these battery-related product fires and will provide updates as new information is discovered.