

# M2155

*Posted on 12.10.2023 by Adam Parnell*



**Category:** [General Maritime](#)

**Report Title** Fire in Container

## Initial Report

During a voyage, a 20ft container loaded with cargo installed with lithium-ion batteries caught fire. The cargo had been mis-declared as non-DG (dangerous goods). Despite the difficulty and safety risk when gaining access to an above-deck container in a confined space, the crew punctured the container and flooded the burning cargo with water. This action controlled the fire until the vessel

got to the next port, where the container was discharged for an investigation by the terminal authorities.

## Comment

The crew's actions in containing the fire until the vessel reached port are commended, as is the decision by the port to accept the vessel – many ports turn away vessels if there is a fire of any description on board. However, these fires require specialist equipment and techniques to extinguish, which are only available in port. Both ports and vessel managers need to develop and exercise robust emergency procedures for LIB fires: traditional equipment and training is insufficient.

It is critical that shippers declare LIB and other dangerous goods correctly. Failure to do so potentially puts the lives of crews in danger because they will not have taken this factor into consideration when loading the cargo, nor be prepared to tackle a LIB fire. Regrettably, cargo misdeclaration occurs frequently.

The Cargo Incident Notification System and Network (CINS) has released a comprehensive guidance document ([CSAR-101A](#)) which is an invaluable reference document for stakeholders transporting LIBs, and provides guidelines for their safe carriage in containers.

Shippers must strictly comply with all relevant national and international safety, health, and environmental regulations when transporting goods containing LIBs. They must thoroughly evaluate the anticipated transport conditions, including factors like manufacturers and customers involved, and conduct a comprehensive assessment of the risks inherent in the supply chain.

The selection of appropriate containers, and following proper packing procedures, is especially important when shipping LIBs. Use temperature-controlled cargo units or protective stowage locations if the expected temperatures within a container are likely to exceed 40 degrees Celsius during the voyage.

By following the CINS guidelines, stakeholders can significantly reduce the risk of incidents such as thermal runaway, which can be challenging to contain and extinguish. It is essential to mention that a thermal runaway event creates very high temperatures, toxic gases and can be inextinguishable.

Traditional fire-fighting techniques are inadequate for these fires, and there is an urgent need for both training and equipment to evolve to meet the hazards of an LIB fire. In particular, CHIRP is concerned that many ports have not established procedures for tackling such fires on board vessels, nor have yet designated a safe anchorage or berth for such an eventuality.

## Key Issues

**Capability-** Cargo misdeclaration happens too frequently. Owners, charterers and shippers should

ensure their organizations have good document management skills and processes in place. Similarly, vessels and ports should have a plan and the equipment to tackle a LIB fire. How often are the practiced?

**Situational Awareness**– Understanding everyone’s role in the supply chain is the most effective way to transport DG’s safely.

**loss\_of\_awareness**Awareness

**lack\_of\_knowledge**Knowledge



