



Safety Alert August 2020

Transporting Hazardous or Dangerous Material.

Lessons Learnt

In a recent incident, chemicals were being transported from one of the campus stores to a laboratory on a two-shelf flat trolley as displayed below (Example 1). The trolley's top shelf had a tub secured by a cable tie to the handle, in which liquids were transported on the trolley. In this incident the tub contained two 4 litre glass bottles of Acetonitrile chemical.

Example 1



Trolley - flat 2 shelves

Example 2



Trolley – bunded chemical

Example 3



Trolley – bunded liquids

The path from stores to the other building directed users to an external route on campus between buildings, and on some days a wind tunnel exists between buildings. On the day of the incident the wind levels were not excessive, though a gust of wind pushed the tub off the trolley, snapping the cable tie and causing the bottles to fall out of the tub onto the cement floor.

One of the two bottles of acetonitrile smashed onto the ground, spilling the contents, and creating a hazardous situation. Due to the volatile nature of acetonitrile, security was called to attend the scene and keep the public safe. The dangerous substance evaporated naturally in the mild wind and no one was injured in the incident. The broken glass was collected and disposed of via the correct waste stream.

Actions after the incident was reported

This incident was reported to SafeWork NSW as it was a dangerous incident.

An investigation was conducted to identify contributing factors.

- It was determined that a flat shelf trolley, as pictured above, is not appropriate to transport dangerous or hazardous material that may need to be bunded or double contained when returning to the lab from stores. Examples of better suited trolleys are pictured above (Examples 2,3).

- Modifications to equipment should be risk assessed to ensure they do not add additional hazards because of the modification.

What are we doing differently now?

- A more appropriate trolley is being used to transport chemicals from stores.
- Investigation of a more suitable route is being discussed and in the process of being consulted with local users, soon to be implemented.
- A traffic management group has been established to help identify other potential hazards in the local area.

Further Information:	Corresponding author for this alert.
Contact your Faculty WHS Business Partner or Coordinator.	t.kahwati@unsw.edu.au
http://safety.unsw.edu.au/contacts	